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A  
DISCOURSE,

INTENDED TO COMMEMORATE THE  
DISCOVERY OF AMERICA

BY *Christopher Columbus* ;

DELIVERED AT THE REQUEST OF THE HISTORICAL  
SOCIETY IN MASSACHUSETTS, ON THE 23d DAY  
OF OCTOBER, 1792, BEING THE COMPLE-  
TION OF THE THIRD CENTURY SINCE  
THAT MEMORABLE EVENT.

TO WHICH ARE ADDED,  
FOUR DISSERTATIONS,

*Connected with various parts of the Discourse, viz.*

1. On the circumnavigation of Africa by the ancients.
2. An Examination of the pretensions of MARTIN BEHAIM to a discovery of America prior to that of COLUMBUS, with a Chronological detail of all the Discoveries made in the 15th Century.
3. On the question, whether the Honey-bee is a native of America?
4. On the colour of the native Americans and the recent population of this Continent.

BY JEREMY BELKNAP, D. D.

“————— *Venient annis*  
*Secula feris, quibus Oceanus*  
*Vincula rerum laxet, et ingens*  
*Pateat tellus, Tiphysque novos*  
*Detegat orbes ; nec sit terris*  
*Ultima Thule.*”

Seneca's *Medea*, written in the reign of NERO.

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13-14

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AT a Meeting of the *Historical Society* of  
Massachusetts, October 23d, 1792 ;

*Voted,* That Dr. Aaron Dexter, Rev. Dr.  
Peter Thacher, and William Tudor, Esq. be  
a Committee to wait on the Rev. Dr. Jeremy  
Belknap, and in the name of the Society, to  
thank him for the Discourse delivered by him  
this day, at their request, upon the subject of  
the Discovery of America by Columbus.

*Attest,* G. R. MINOT,  
*Recording Secretary.*

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*District of Massachusetts, to wit :*

(L.S.) BE it remembered, That on the twenty-third day of October, in the seventeenth year of the Independence of the United States of America, JEREMY BELKNAP of the said district, hath deposited in this office the title of a book, the right whereof he claims as Author, in the words following, to wit, "A Discourse intended to commemorate the Discovery of America by *Christopher Columbus* ; delivered at the request of the Historical Society, in Massachusetts, on the twenty-third day of October, 1792, being the completion of the third Century since that memorable event. To which are added four Dissertations connected with various parts of the Discourse, viz.

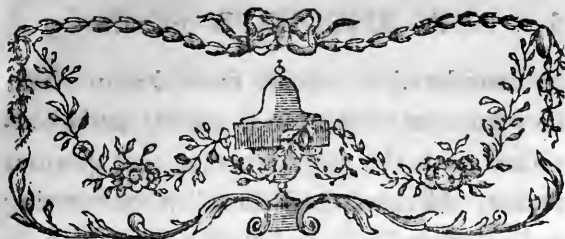
- " 1. On the circumnavigation of Africa by the Ancients.
- " 2. An examination of the pretensions of *Martin Behaim* to a discovery of America prior to that of *Columbus*, with a Chronological detail of all the Discoveries made in the 15th Century.
- " 3. On the question, whether the Honey-bee is a native of America ?
- " 4. On the colour of the native Americans and the recent population of this Continent.

" BY JEREMY BELKNAP, D. D."

In conformity to the Act of the Congress of the United States, intituled "An Act for the encouragement of learning, by securing the copies of Maps, Charts and Books to the authors and proprietors of such copies, during the times therein mentioned."

N. GOODALE, *Clerk of the  
District of Massachusetts.*

*A true copy of Record,  
Attest, N. GOODALE.*



# A D I S C O U R S E

O N T H E

D I C O V E R Y O F A M E R I C A .

WE are met together, this day, my respectable auditors, to commemorate an event; which, whether it be considered in its causes, in its execution, or in its consequences, must be acknowledged, a splendid instance of the accomplishment of that remarkable prediction of the prophet,

DANIEL, Chap. xii. ver. 4.

*“ Many shall run to and fro and knowledge shall be increased.”*

These words in their obvious and literal meaning point out a vast increase of science, and the subserviency of travelling to this important purpose. The time to which they refer cannot be precisely defined ; but it must

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be considered as remote from that in which they were delivered ; and, it is evidently connected with the appearance of that glorious person “ Michael the Prince,” whose coming and kingdom, and the salvation of which he is the author are foretold in the same prophecy.

A thought of this kind would not readily have occurred to the mind of a captive Jew, had he not been under the influence of the prophetic spirit. Transported by the fortune of war into the dominions of a foreign Prince, as was Daniel, his highest expectation would be to return to the land of his nativity and resume his former employments and mode of acquiring knowledge ; the objects of which were, the antiquities of the world, the doctrine of the divine unity, the series of prophecy, the ritual worship and the system of moral duty, which were taught in the sacred books. The hope of such a return, grounded on a divine promise was one source of consolation to the Jews in their captivity ; but this prophet was favoured with such divine communications respecting the future fortunes of his nation and the state of the Church of God under the reign of the Messiah, as carried his  
views

views into the most distant ages, and presented scenes and events, of a nature very different from the genius and character of the times in which he lived. Among these, the increase of science, as it is connected with travelling, is not the least conspicuous. Though briefly mentioned, yet it is placed among the most important facts, and is represented as one of the happy events attending the reign of the Prince Messiah, of the increase of whose government and peace there shall be no end.

Subsequent ages and transactions have proved that this prediction was founded in truth. Time has unfolded what was foreseen in prophetic vision ; and the hand of divine Providence has spread before our eyes, those great events, which many prophets and wise men desired to see, but saw them not.

As “ the testimony of Jesus is the spirit of prophecy,” so we may very properly consider the travels of the Apostles to spread the knowledge of the gospel, as one capital instance of the fulfilment of Daniel’s prediction. By virtue of the commission which they received from their Lord, and the special powers with which they were vested, particularly the gift of tongues, those chosen witnesses carried the knowledge

knowledge of the truth to all parts of the world, then known ; so that it might be said of them, as of the luminaries of heaven, "their sound went into all the earth and their words to the end of the world ; there was no speech nor language where their voice was not heard." The effects of that evangelic mission, though in some places transient, yet in others were abiding. Though a corrupt form of christianity overspread many of the nations who had heard the glad tidings of salvation ; yet so much of the truth remained, as to be a foundation for reviving the pure doctrines and practices of the apostolic age, when a concurrence of circumstances presented a favourable opportunity.

Beside the miraculous spreading of divine truth by the labours and travels of the Apostles, there was no remarkable event, which might be called another instance of the accomplishment of the prophecy of Daniel, till several centuries had elapsed. Other causes then contributed to produce events, which, either in their nature or consequences, proved beneficial to the interest of science. Even the superstition which prompted the crusades, in the tenth and eleventh centuries, opened

opened a communication between the most distant countries of Europe and Asia ; and the adventurers, who returned from the holy land, brought home a taste for the manners, habits and productions of the east, which proved favourable to the spirit of commerce ; the most powerful of all causes which have contributed to enlarge the sphere of science ; because it is stimulated by one of the most active principles of the human mind.

But even the operations of commerce were slow and languid, till the discovery of the magnetic needle, in the beginning of the fourteenth century. Before that period, the cautious mariner followed the indentings of the shore, and consumed much time in creeping along from Cape to Cape ; seeking a port before every tempest, and drawing up his bark to land during the reign of winter, or of adverse winds. But when the polarity of the magnet became known, he ventured farther into the ocean, and began to assume that dominion over the sea, for which man had a grant from his Creator, when he was originally formed in the divine image. Then the deep rooted errors of antiquity were gradual-

ly corrected : The torrid and frigid zones were found to be habitable. The dream of Scipio proved to be an illusion : Thulé was no longer the last of lands, nor the pillars of Hercules the boundary of the universe.

About the middle of the fifteenth century, when the Portuguese under the conduct of Prince Henry, and afterward of King John II. were pushing their discoveries along the western shore of Africa, to find a passage by the south to India ; a genius arose, whose memory has been preserved with veneration in the pages of history, as the instrument of enlarging the region of science and commerce, beyond any of his predecessors. CHRISTOPHER COLUMBUS, a native of the Republic of Genoa, was born in the year 1447, and at the age of fourteen entered on a seafaring life, as the proper sphere, in which his vigorous mind was destined to perform exploits which should astonish mankind.\* He was educated in the sciences of Geometry and Astronomy, which form the basis of navigation ;

\* Life of Columbus by his son Ferdinand—Chap. 4. See Vol. II. of Churchill's Collection of Voyages.

igation ; and he was well versed in Cosmography, History and Philosophy. His active and enterprising genius, though it enabled him to comprehend the old systems, yet would not suffer him to rest in their decisions, however sanctified by time or by venerable names ; but, determined to examine them by actual experiment, he first visited the seas within the polar circle, and afterward those parts of Africa, which the Portuguese had discovered, as far as the coast of Guinea ; and by the time that he had attained the age of thirty-seven, he had from his own experience received the fullest conviction, that the opinion of the ancients respecting the torrid and frigid zones was void of any just foundation.

When an old system is found erroneous in one point, it is natural to suspect it of farther imperfections ; and when one difficulty is overcome, others appear less formidable. Such was the case with Columbus ; and his views were accelerated by an incident, which threatened to put an end to his life. During one of his voyages, the ship in which he sailed took fire in an engagement with a Venetian galley, and the crew were obliged to leap in-  
to

to the sea, to avoid perishing in the flames. In this extremity, Columbus by the help of a floating oar swam upwards of two leagues, to the coast of Portugal near Lisbon, and met with a welcome reception from many of his countrymen who were settled there.

At Lisbon, he married the daughter of Pereftrello, an old seaman, who had been concerned in the discovery of Porto Santo and Madeira; from whose journals and charts, he received the highest entertainment. Pursuing his inquiries in Geography, and observing what slow progress the Portuguese made in their attempts to find a way round Africa to India, "he began to reflect that as the Portuguese travelled so far southward, it were no less proper to sail westward,"\* and that it was reasonable to expect to find the desired land in that direction.

It must here be remembered, that India was in part known to the ancients, and that its rich and useful productions had for many centuries been conveyed into Europe, either by Caravans through the desarts of Syria and Arabia; or by the way of the Red Sea, through  
Egypt,

\* Life, Chap. V.

Egypt, into the Mediterranean.\* This lucrative commerce had been successively engrossed by the Phenicians, the Hebrews, the Egyptians, the Assyrians, the Palmyrenes, the Arabians, the Genoese and the Venetians. The Portuguese were then seeking it by attempting the circumnavigation of Africa; and their expectation of finding it in that direction was grounded on ancient historical traditions, that a voyage had been formerly made by the orders of Necho King of Egypt, from the Red Sea, round the southern part of Africa to the Straights of Hercules; and that the same route had been traversed by Hanno the Carthaginian, by Eudoxus the Egyptian and others. The Portuguese had consumed about half a century in making various attempts, and had advanced no farther, on the western Coast of Africa, than just to cross the Equator, when Columbus conceived his great design of finding India in the west.

The causes which led him to entertain this idea are distinguished by his son, the writer of his life into these three,† “natural reason,

\* Robertson's India. Bruce's Travels.

† Life, Chap. VI.

reason, the authority of writers, and the testimony of sailors."

By the help of "reason," he argued in this manner, That the earth and sea composed one globe or sphere. This was known by observing the shadow of the earth in lunar eclipses. Hence he concluded that it might be travelled over from east to west or from west to east. It had been explored to the east by some European travellers as far as Cipango or Japan, and as far westward as the Azores or Western Islands. The remaining space though now known to be more than half, he supposed to be but one third part of the circumference of the globe. If this space, were an open sea, he imagined it might be easily sailed over ; and if there were any land extending eastwardly beyond the known limits of Asia, he supposed that it must be nearer to Spain by the west than by the east. For it was then a received opinion that the continent and islands of India extended over one third part of the circumference of the globe ; that another third part was comprehended between India and the western shore of Spain ; therefore it was concluded, that the eastern part of India must be

as

as near to Spain as the western part. This opinion though now known to be erroneous, yet being then admitted as true, made it appear to Columbus very easy and practicable to discover India in the west. He hoped also that between Spain and India, in that direction, there might be found some islands; by the help of which, as resting places in his voyage, he might the better pursue his main design. The probability of the existence of land in that Ocean, he argued, partly from the opinion of philosophers, that there was more land than sea on the surface of the globe; and partly from the necessity of a counterpoise in the west, for the immense quantity of land which was known to be in the east.

Another source from which he drew his conclusion, was "the authority of learned men," who had affirmed the possibility of sailing from the western coast of Spain, to the eastern bounds of India. Some of the ancient Geographers had admitted this for truth, and one of them\* had affirmed that forty days were sufficient to perform this navigation. These authorities fell in with the theory

\* Pliny.

theory which Columbus had formed ; and having as early as 1474, communicated his ideas in writing to Paul, a learned Physician of Florence, he received from him letters of that date, confirming his opinion and encouraging his design ; accompanied with a chart, in which Paul had laid down the city of Quifay (supposed to be the capital of China) but little more than two thousand leagues westward from Lisbon, which in fact is but half the distance. Thus by arguing from true principles, and by indulging conjectures partly well founded and partly erroneous, Columbus was led to the execution of a plan, bold in its conception, and to his view easily practicable ; for great minds overlook intermediate obstacles, which men of smaller views magnify into insuperable difficulties.

The third ground on which he formed his idea was “ the testimony of mariners ;” a class of men who at that time, and in that imperfect state of science, were too prone to mix fable with fact ; and were often misled by appearances, which they could not solve. In the sea, between Madeira and the Western Islands, pieces of carved wood and large joints of cane had been discovered, which were supposed

posed to be brought by westerly winds. Branches of pine trees, a canoe, and two human bodies of a complexion different from the Europeans and Africans had been found, on the shores of these islands. Some navigators had affirmed, that they had seen islands not more than an hundred leagues westward from the Azores. There was a tradition, that when Spain was conquered by the Moors in the eighth century, seven Bishops who were exiled from their country, had built seven cities and churches, on an island called Antilla; which was supposed to be not more than two hundred leagues west of the Canaries; and it was said that a Portuguese ship had once discovered this island, but could never find it again. These stories, partly true and partly fabulous, had their effect on the mind of Columbus. He believed that islands were to be found, westward of the Azores and Canaries, though according to his theory, they were at a greater distance than any of his contemporaries had imagined. His candour led him to adopt an opinion from Pliny respecting floating islands, by the help of which he accounted for the appearances related to

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him,

him, by his marine brethren. It is not improbable that the large islands of floating ice, driven from the Polar Seas to the southward; or the Fog Banks, which form many singular appearances resembling land and trees, might have been the true foundation of this opinion and of these reports.\*

It

\* The following account of a curious deception, extracted from the *Gentleman's Magazine*, may elucidate the above observations.

*Gentleman's Magazine*, 1752, page 88.—“ March 4, 1748—9, at two in the afternoon, made land, which bore N. E. seven leagues distance by estimation: at five tacked, being about three leagues from said island, wind E. S. E. latitude by observation  $49^{\circ} 40'$ ; longitude  $24^{\circ} 30'$ , from the lizard. This island stretches N. W. and S. E. about 5 leagues long, and 9 miles wide. On the south side fine valleys and a great number of birds.

March 5, said island bore N. three leagues. N. W. a reef of rocks three miles. This day a ship's mast came along side. On the south point of said island is a small marshy island.”

“ A copy of my journal on board the snow *St. Paul* of London, bound from South Carolina to London.

“ William Otton, Commander.”

P. S. Captain Otton thought he saw a tent on the island, and would have gone ashore, but had unfortunately stove his boat some time before.

*Gent. Mag.* 1751, p. 235.—“ Commodore Rodney is commissioned to go in quest of an island, which, according to the report of a master of a ship, and some others,

It is not pretended that Columbus was the only person of his age who had acquired these ideas of the form, dimensions and balancing of the globe ; but he was one of the few who had begun to think for themselves, and he had a genius of that kind, which makes use of speculation

others, on examination before the Lords of the Admiralty, lies about  $50^{\circ}$  N. and about 300 leagues west of England. Capt. Murdock Mackenzie, an excellent mathematician, and author of the sea charts of the Orkney and Lewis islands, attends him in the Culloden sloop, to bring back an account of what discoveries he may make. As this island lies out of the track of the trade to America, it is supposed to have been missed by navigators to our colonies, *though marked in some Dutch maps*. If the Commodore discovers it, he is to take possession of it by the name of Rodney's island."

*Gent. Mag.* 1752, p. 189.—" Friday, April 10, 1752, Commodore Rodney arrived at Woolwich : he had been cruising ten days in quest of an island, and the men at the top-mast-head were more than once deceived with what the sailors call fog-banks. About the 6th or 7th day the crew observed branches of trees with their leaves on, and flights of gulls, and pieces of shipwreck, which are generally regarded as certain signs of an adjacent shore, but could not discover any."

N. B. The island *marked in the Dutch maps*, lies in latitude  $57^{\circ}$ , and longitude  $13^{\circ}$  W. It has been seen by American ships in their passage from Russia, and is *now* marked in the English charts ; it could not have been mistaken for this imaginary island, being but a single rock.

ulation and reasoning only as excitements to action. He was not a closet projector, but an enterprising adventurer ; and having established his theory on principles, he was determined to exert himself to the utmost, to demonstrate its truth by experiment. But deeming the enterprize too great to be undertaken by any but a sovereign state, he first applied (as it is said) to the Republic of Genoa, by whom his project was treated as visionary.\* He then proposed his plan to John II. King of Portugal, who, though a Prince of good understanding and of an enterprising disposition, yet was so deeply engaged in prosecuting discoveries on the African coast, with a view to find a way to India round that continent ; and had been at so vast an expense without any considerable success, that he had no inclination to accept the terms which Columbus proposed. Influenced however by the advice of Calzadilla, a favourite courtier, he privately

\* This is said on the authority of Herrera the Spanish historian ; Ferdinando Columbus, in the life of his father, says nothing of it ; but represents his application to the King of Portugal as the first, and gives this reason for it, "because he lived under him."

ly gave orders to a ship, bound to the islands of Cape de Verd, to attempt a discovery in the west, but through ignorance and want of enterprise, the navigators, after wandering for some time in the ocean and making no discovery, reached their destined port and turned the project of Columbus into ridicule.

Disgusted with this base artifice he quitted Portugal, and went to Ferdinand, King of Spain, having previously sent his brother to England to solicit the patronage of Henry VII. But being taken by pirates, and detained several years in captivity, Bartholomew had it not in his power to reveal his project to Henry, till Christopher Columbus had succeeded in Spain. Before this could be accomplished, he had various obstacles to surmount ; and it was not till after seven years of painful solicitation that he obtained his request.

The objections made to the proposal of Columbus, by the most learned men in Spain, to whom the consideration of it was referred, will give us some idea of the state of geographical science at that time. One objection was, How should he know more than all the  
 wise

wise men and skilful sailors who had existed since the creation ? Another was the authority of Seneca who had doubted whether it were possible to navigate the ocean at any great distance from the shore ; but admitting that it were navigable, they imagined, that three years would be required to perform the voyage, which Columbus proposed. A third was, that if a ship should sail westward on a round globe, she would necessarily go down, on the opposite side, and then it would be impossible to return, because it would be like climbing up a hill, which no ship could do with the strongest wind. A fourth objection was grounded on a book of St. Augustine, in which he had expressed his doubt of the existence of antipodes and the possibility of going from one hemisphere to the other. As the writings of this Holy Father had received the sanction of the Church, to contradict him was deemed heresy.\*

For such reasons, and by such reasoners the proposal of Columbus was at first rejected ; but by the influence of father Perez, a Spanish Priest, and Lewis Santangel, an officer of the

\* Life of Columbus, Chap. XII.

the King's household, Queen Isabella was persuaded to listen to his solicitation, and after he had been twice repulsed, to recal him to Court; when she offered to pawn her jewels to defray the expence of the equipment, amounting to no more than 2500 crowns; which sum was advanced by Santangel, and the Queen's jewels were saved. Thus, to the generous decision of a female mind, we owe the discovery of America.

The necessary preparations being made, and a year's provision laid in, on the 3d of August, 1492, Columbus sailed from Palos, a port of Spain, on the Mediterranean, with three vessels, one of which was called a Carrack, and the other two, Caravels; having on board, the whole, ninety men. Having passed through the straits of Gibraltar, he arrived at the Canaries, on the 12th of the same month; where he was detained in refitting one of the Caravels, and taking in wood and water, till the 6th of September, when he sailed westward on his voyage of discovery.

This voyage, which now is considered as an easy and pleasant run, between the latitudes of 20 and 30 degrees, with a trade wind, was then the boldest attempt which had ever  
been

been made, and filled the minds of the best seamen with apprehension. They were going directly from home, and from all hope of relief, if any accident should befall them. No friendly port nor human being was known to be in that direction. Every bird which flew in the air, every fish which appeared in the sea, and every weed which floated on its surface, was regarded with the most minute attention,\* as if the fate of the voyage depended on it. A phenomenon which had never before been observed struck them with terror. The magnetic needle appeared to vary from the pole : They began to apprehend that their compass would prove an unfaithful guide ; and the trade wind, which wafted them along with its friendly wings, they feared would obstruct their return.

To be twenty days at sea, without sight of land was what the boldest mariner had never before attempted. At the expiration of that time the impatient sailors began to talk of throwing their commander into the ocean and returning home. Their murmurs reach-  
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\* See the journal of the voyage in the Life of Columbus, Chap. XVIII—XXI.

ed his ears ; but his active mind was never at a loss for expedients, even in the greatest extremity. By soothing, flattery and artifice, by inventing reasons for every uncommon appearance, by promising rewards to the obedient, and a gratuity to him who should first discover land, in addition to what the King had ordered, and by deceiving them in the ship's reckoning, he kept them on their course for sixteen days longer. In the night of the 11th of October, he himself saw a light, which seemed to be on shore, and in the morning of the 12th, they had the joyful sight of land, which proved to be the island of Guanahana, one of the cluster called Bahamas, in the 25th degree of north latitude.

Thus in the space of thirty-six days, and in the 45th year of his age, Columbus completed a voyage which he had spent twenty years in projecting and executing ; a voyage which opened to the Europeans a new world ; which gave a new turn to their thoughts, to their spirit of enterprise and of commerce ; which enlarged the empire of Spain, and stamped with immortality the name of Columbus.

After spending several months in sailing from one island to another in that vast archi-

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pelago,

pelago, which, from the mistakes of the age, received the name of the West-Indies, Columbus returned to Spain with the two smaller vessels, the larger having been wrecked on the island of Hispaniola. During his passage he met with a violent tempest which threatened him with destruction. In this extremity he gave an admirable proof of his calmness and foresight. He wrote on parchment an account of his discoveries, wrapped it in a piece of oiled cloth, and inclosed it in a cake of wax, which he put into a tight cask and threw into the sea. Another parchment, secured in the same manner he placed on the stern, that if the ship should sink, the cask might float, and possibly one or the other might be driven on shore, or taken up at sea by some future navigator. But this precaution proved fruitless. He arrived safe in Spain in March, 1493, and was received with the honours due to his merit.

After this, he made three other voyages to America, in one of which he discovered the continent; and in a succeeding voyage he endeavoured to find a passage through it to India, but in vain; that desirable country he never saw.

To particularize all the succeeding events in the life of that great man, is not the design of this discourse ; let it suffice to observe, that his latter days were embittered by the envy of his rivals, the death of his patroness and the jealousy of his sovereign. Though he merited the honour of giving his own name to the continent which he discovered, yet it was called after an inferior, but more fortunate adventurer.\* Nor have endeavours been wanting both formerly and lately to rob him of the merit of originating this capital discovery. But in the pages of impartial history, he will always be celebrated as a man of genius and science ; as a prudent, skilful, intrepid navigator ; as having first reasoned out the

\* This fortunate adventurer was *Amerigo Vesputti* or *Americus Vesputius*, a Florentine merchant and mathematician, who sailed as a private adventurer with *Ojeda*, in 1499, and discovered the continent in the latitude of  $5^{\circ}$  N. which Columbus, in the preceding year had discovered in the latitude of  $9^{\circ}$  N. In 1501, Amerigo made another voyage to the West-Indies ; and after the death of Columbus, was employed by Ferdinand, King of Spain, to delineate the new discoveries on charts. From these charts, and a book which he published, describing the new world, this continent unjustly obtained the name of AMERICA.

the probability, and then demonstrated the certainty of the existence of this continent.

It is remarkable, that a fate similar to that of Columbus, hath befallen others of the first adventurers to America. The great RALEIGH was sacrificed to the jealousy of Spain by the pusillanimity of his sovereign. SMITH, GORGES, MASON and POPHAM, consumed their time and fortunes in prosecuting discoveries, and laying a foundation for the prosperity of their successors. Yet the names of these men have not been given to any considerable part of this territory, the object of their painful and expensive undertakings. History however will preserve the memory of their exertions, though forgotten by those STATES which are indebted to them for their existence.

Having thus traced the steps by which the *discovery of America* was made to the Europeans; let us take a view of its connexion with the *advancement of science*.

The first branch of science which presents itself in this inquiry is *Geography*; the knowledge of which has been most essentially improved by means of this discovery. It is to

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us very astonishing, that the ancient philosophers persisted so tenaciously in their opinion respecting the five zones; and especially that they deemed the equatorial regions uninhabitable, when they had the means of better information. For, voyages were frequently made from the red sea to the coast of India, within ten or twelve degrees of the equator. The Carthaginians planted colonies on the western side of Africa, within five degrees of it; and if the country of Ophir was the same with Sofala, on the eastern shore of Africa, the navy of Solomon must have crossed the equator both in going and returning. Notwithstanding this advantage which they certainly had, it was a received opinion among the Greeks and Romans, which no one dared to controvert; that the torrid zone was scorched by the vertical sun, and that no human being could reside in it, or pass through it, from the northern to the southern hemisphere. This error, it is probable, first arose from the knowledge which they had of the vast, sandy deserts of Africa, which had sometimes proved destructive to whole armies who had attempted to pass them. The only way, in  
which

which we can account for their not correcting this mistake, is, that the navigation of the southern seas was performed chiefly by the Phenicians and Carthaginians, who were the enemies and rivals of the Greeks and Romans, and kept their knowledge to themselves. We find among them no philosophers, and very few authors. They were practical seamen and merchants, intent on gain, and monopolizers of commerce.

The Greeks and Romans had very little more of the spirit of enterprize than was connected with their hostile expeditions; but they formed theories of geography, either by the observations and reports of their military commanders, or by second hand information, or by conjecture and hypothesis. These nations produced many authors, and many of their books are preserved to our times, in which we see the imperfection of their knowledge of the globe, their prejudice in favour of their erroneous system, and their incredulity when evidence was offered against their pre-conceived hypothesis.

On the authority of these philosophers, the Roman world for many ages founded all their  
geographical

geographical knowledge. That imperfect system became at length a part of the creed of the Roman church, and was defended by the court of inquisition. If St. Augustine doubted the diurnal motion of the earth, or the existence of antipodes, or the habitableness of the torrid zone ; St. Dominic was ready with his infernal logic, to silence every one who presumed to dissent from the infallible chair. Thus ignorance and error were canonized, and the feeble dawn of science was scarcely able to penetrate the dark mist of the middle ages. Even after the discoveries made by the Portuguese in the east, and by the Spaniards in the west, the Roman Pontiff gravely assumed a right to divide the world between them by a line drawn from pole to pole, at the distance of an hundred leagues from the Azores or western islands ; without any provision, in case they should meet, and their claims should interfere on the opposite side of the globe.\*

By the progress of discovery, those ancient systems have gradually vanished, and mankind

\* See the Bull at large in Hazard's Collection, vol. 1. page 5.

kind have founded their knowledge of the form and contents of the terraqueous globe, on fact and experience. One traveller has succeeded another, and one nation has emulated another, in the survey of the earth, till within the last twenty years the boundaries of navigation have been precisely ascertained, and the circuit of the globe is now become a familiar voyage among our marine brethren. The reign of George III, though stained with the grossest political errors, and disgraced by the loss of a large portion of this continent from his dominion ; yet deserves respect, for giving birth to many expensive adventures to the most distant regions, especially in the vast pacific ocean ; by which the science of geography has been much improved. Indeed we are now so far advanced in our acquaintance with the globe, that every school-boy knows more of it than all the philosophers of antiquity ; and as we proceed in our inquiries into this noble science, we learn more and more of the wonderful works of him who is perfect in wisdom and knowledge.

Connected with geography, we may view the science of *navigation* as also greatly improved

proved since this discovery. By navigation I do not mean barely the mathematical knowledge necessary to keep the reckoning of a ship, and the celestial observations to determine its position ; though even these are reduced to more accuracy, and performed by better instruments than formerly ; but I would comprehend the whole art of travelling by sea, the construction and equipment of ships, and the methods used to preserve the lives and health of seamen in all climates. When Columbus sailed on his first voyage, two of the vessels employed in that service were without decks,\* and in the short run from Spain to the Canaries one of them lost her rudder. This must give us an idea of the very imperfect state of naval architecture at that period ; for these were doubtless the best ships which could be procured in the dominion of Queen Isabella, and they were three months in preparing for the voyage. After that period, commerce, the soul of navigation, dictated the building and equipment of larger, stronger

\* "*Ex regio fisco destinata sunt tria navigia ; unum onerarium caveatum, alia duo levia mercatoria sine caveis, quæ ab Hispanis Caravelæ vocantur.*"

Peter Matyr, de orbe novo.

er and more commodious vessels, for the purpose of transporting merchandise, and exploring new regions. But that fatal distemper the scurvy, was an obstacle which for many years baffled the ingenuity of man, and the power of medicine. It is but half a century since the Squadron of ANSON, in circumnavigating the globe, were reduced to the utmost distress, by its uncontroled ravages. But within the last twenty years, methods have been adopted to prevent it ; and the name of COOKE will always be renowned in naval history, for having successfully perfected the means of preserving the lives of seamen in the longest voyages ; as well as for having established the limits of navigation, toward the southern and the northern poles.

It is now known by experience, that the human constitution is capable, by proper management, of enduring all the vicissitudes of heat and cold, of moisture and dryness, to which any accessible part of the earth is subject ; and that its health may be preserved in all climates and situations. This discovery is in the highest degree favourable to the purposes of commerce, which in the present age,  
affords

affords its friendly assistance to the progress of knowledge and humanity.

We may also reckon the science of *natural history* as greatly improved by the discovery of this continent. It has given mankind more just and sublime ideas of the works of God, some of which appear to be constructed on a larger scale, and in a more magnificent style, than in the old continent. The immense Andes of South America are elevated above the Alps, the Taurus or the Atlas. The Amazon, Oronoque and La Plata discharge greater quantities of water than the Danube, the Ganges or the Nile. The vast chain of lakes which flow into the St. Lawrence, forms a singular phenomenon, which no part of the old continent can parallel. Besides, America can boast of the most extensive and fertile plains, whilst it is entirely free from those scorching sands and parched deserts, which deform the countries of Africa and Arabia.

In America are found several species of animals unknown in other parts of the world, beside the remains of some supposed to be now extinct, which for bulk and strength must at least have equalled the elephant of Asia and Africa. The vegetable productions of  
this

this continent have also enriched the medical art, with many valuable acquisitions before unknown. The precious metals, gold and silver as well as diamonds and pearls are vastly more common, and of less value than before ; and the fossil treasures which have been discovered, afford not only many useful articles in commerce and the arts, but demonstrate the certainty of an universal disruption of the earth, at some remote period, and thus confirm the truth of sacred history.

The discovery of America has also opened an important page in the *history of man*. We find our brethren of the human race, scattered over all parts of this continent, and the adjacent islands. We see mankind in their several varieties of colour, form and habit, and we learn to consider ourselves as one great family, sent into the world to make various experiments for happiness.

One of the grandest of these experiments has been made in our own part of this continent. Freedom, that noble gift of heaven, has here fixed her standard, and invited the distressed of all countries to take refuge under it. Our virtuous ancestors fled from the impositions and persecutions to which they were subjected

ed in England, and found in this wilderness an asylum from that tyranny. Their example was followed by others, and in North America, the oppressed of Europe have always found safety and relief. But we were designed by Providence for a nobler experiment still: Not only to open a door of safety to our European brethren here; but to show them that they are entitled to the same rights in their native countries; and we have set them an example of a hazardous, but successful vindication of those rights, which are the gift of God to man.

It is both amusing and instructive to review our former notions of liberty, both civil and religious; and to see what imperfect ideas we had on these subjects, derived by tradition from our European ancestors. Like them we boasted of *English* liberty; as if Englishmen had some exclusive rights, beyond any other people, on the face of the earth. And what was English liberty? Its origin must be sought in ancient charters, and particularly in *magna charta*, granted by, or rather forced from, one of the worst princes that ever disgraced a throne. The liberties of Englishmen, after the Norman Conquest, were

were the grants of their Kings ;\* and the prerogative was the claim of those Kings to power and dominion supposed to be founded on a divine right.

In the early stages of our controversy, we had formed an idea of liberty, as an inheritance, descended to us from our ancestors, who were Englishmen ;† some of whom, when they quitted England, had received of the then reigning prince, charters under the great seal ; by which it was supposed that their privileges were confirmed to them and their posterity ; and the colonies which had these charters plumed themselves on possessing more and greater privileges, than those  
 styled

\* “ I have always considered the boasted birth-right of an Englishman, as an arrogant pretension built on a beggarly foundation. It is arrogant, because it intimates a kind of exclusion to the rest of mankind from the same privileges ; and it is beggarly, because it rests our legitimate freedom on the alms of our princes.” *Catharine Macaulay Graham.*

† “ Few people have extended their inquiries after the foundation of their rights beyond a charter from the crown. Others think when they have got back to old *magna charta*, that they are at the beginning of all things. They imagine themselves on the borders of Chaos, and see creation rising out of the unformed mass. Hence, say they, spring all the rights of men and of citizens.”

*James Otis.* 1764.

styled royal provinces, which were governed by temporary commissions from the crown, revocable at the royal pleasure.

In like manner, our title to religious freedom was supposed to be derived, partly from the same charters and commissions ; in which, liberty of conscience was *granted* by the King, to such of his subjects as should settle in the plantations ; partly from acts of toleration, made in England, and construed to extend to the colonies ; and, partly from our own laws made to favour the religious opinions and practices of those who dissented from the majority. Religious liberty was not placed on its right foundation, nor derived from its true source. The world was not obliged to the statesman or the divine, for the first acknowledgment of this darling right ; but to the spirit of commerce and to the interested views of the merchant. Religious toleration was introduced into the European countries for the benefit of trade. When the merchants of Holland struck out the idea, it was regarded by their neighbours, with the same horror as a pestilence. It was imported into England, with William, Prince of Orange, under whose patronage

patronage it was formed into a law ; but it has never been there so extensively admitted as to put all sects and parties on an equal footing. A preference is still given to one denomination above all others ; and if an Englishman would fully enjoy the privileges of an Englishman, he must conform to the rites and ceremonies of what is called the established church ; all other persons are subject to burdens and incapacities, from which they cannot be free, whilst they continue within that realm ; and the opposers of these unequal burdens are exposed to the rage of party zeal, which in some late instances has been carried to the most criminal excess.

Too much of the same spirit, it must be confessed, has reigned here. Our ancestors in New England established a test before any was enacted by the English parliament ; and though it has, long since, been abrogated, yet the idea of an exclusive right to the honours and emoluments of government, by the prevailing religious denomination, continued till very lately. Some of us can remember the time, when it was thought a sufficient objection to a man's being chosen to a seat in the legislature, that he belonged to the  
Episcopal

Episcopal Church. And, even at this enlightened period, I blush to own, that, by the Constitution of this Commonwealth, the Jew, the Mahometan, the Gentoo, and the Disciple of Confucius, are excluded from our public councils, be they ever so good citizens; whilst men, who for convenience, call themselves Christians, though deeply tinged with infidelity, and destitute of moral principles, *may* freely be admitted.

But though imperfection is more or less interwoven with all human constitutions; yet a spirit of improvement is evidently pervading this country. Several of the first forms of government which were made for these States, have been reviewed and amended. Religious tests have been gradually abolished; and our national form of government is entirely free from them. It leaves religion where all civil government ought to leave it; to the consciences of individuals, under the control of the supreme Lord.

As learning is acknowledged to be essentially necessary to the preservation of a republican government, so wherever the true spirit of liberty reigns it will cherish the interest

F of

of science. This principle was well understood by the fathers of New England, and we their posterity have reaped the benefit of their wise and faithful care to provide the means of instruction for us. The same spirit seems more and more to prevail throughout this country, and forms one of the most happy omens of the preservation of liberty to future generations.

From our example of a government founded on the principle of representation, excluding all family pretensions and titles of nobility, other nations are beginning to look into their natural and original rights as *men*; and to assert and maintain them against the claims of despotism. As far as the present struggle in Europe against civil and spiritual usurpation, is conducted on virtuous principles, we cordially wish it success. But have we not reason to fear that the cause of liberty may be injured by the intemperate zeal of its friends, as much as by the systematic opposition of its enemies? If wisdom, harmony and fortitude were combined with patriotism on the side of liberty, we might hope that the time was approaching, when an hereditary right to govern a nation would appear as contemptible

temptible as the royal touch for the King's evil ; and when the loftiest prelates of Europe would find themselves reduced to the same level with the curate of a parish. But what scenes of anarchy and distress may take place before these desirable events, we must wait for time to unfold.

It is an old observation of Solomon, " He that increaseth knowledge increaseth sorrow." This may justly be applied to the enlargement of science which is made by the discovery of America. The field is extended, but difficulties have arisen which are not yet solved. Though we have learned more of the works of creation and providence than was known to preceding ages, yet we find that there is still more behind the curtain.

Among these difficulties we may reckon the question, *whence was America peopled?* For three centuries this has been a subject of debate among the learned ; and it is amusing, to see how national prejudice has become involved with philosophical disquisition, in the attempts which have been made to solve the question. The claims of Hanno the Carthaginian, of Madoc the Welchman, of the  
seven

seven Bishops of Spain, and the ten tribes of Israel; have had their several advocates ; and after all, the claim of the six nations is as well founded as any, that their ancestors sprung like trees out of the soil. The true philosopher will treat them all with indifference, and will suspend his judgment till he has better information than any which has yet appeared. Since the late discovery of many clusters of islands in the Pacific Ocean, and the near approach of the Asian to the American continent, the difficulty with respect to the population of America, by the human species is lessened ; and had this continent been discovered by a scientific people on its western, before it was on its eastern side, perhaps the question would not have been so long nor so warmly agitated. But still the transportation of other animals from the old to the new continent, and the existence of some here which are not known there, is a subject, which remains involved in obscurity.

Before we have solved one difficulty another rises to view. It is not many years since the large bones found in the neighbourhood of the Ohio excited much attention. We had

had scarcely conjectured to what animal they belonged when a new object was brought forward. *Mounds* and *fortifications* of a regular construction were discovered in the thickest shades of the American forest, overgrown with trees of immense age, which are supposed to be not the first growth upon the spot since the dereliction of its ancient possessors.

The most obvious mode of solving the difficulty which arose in the curious mind on this occasion was by making inquiry of the natives. But the structures are too ancient for their tradition, their oldest and wisest men know nothing of their original. Indeed the form and materials of these works seem to indicate the existence of a race of men in a stage of improvement superior to those natives of whom we or our fathers have had any knowledge ; who had different ideas of convenience and utility ; who were more patient of labour, and better acquainted with the art of defence.

That these works were not constructed by any Europeans who have penetrated the American wilderness since the discovery of the continent, appears from various considerations ;

tions;\* but most decisively from the trees found growing on them ; which by indubitable marks are known to be upwards of three hundred years old. At what remote period these works were erected and by whom ; what became of their builders ; whether they were driven away or destroyed by a more fierce and savage people, the Goths and Vandals of America ; or whether they voluntarily migrated to a distant region ; and where that region is, are questions which at present can not be satisfactorily answered.

Our astonishment is further excited, by considering that the discovery of America has opened a large mart for the *commerce in slaves* from the opposite continent of Africa. So much has been written and spoken on the iniquity attending this detestable species of traffic, that I need not attempt again to excite the feelings of indignation and horror, which I doubt not have pervaded the breast of every person now present, when contemplating this flagrant insult on the laws of justice and humanity. I shall only observe, that the first introduction

\* See the Columbian Magazine, for 1788. P. 477, 645.

duction of the negro slavery into America, was occasioned by the previous destruction of the native inhabitants of the West-India islands, by the cruelty of their Spanish conquerors, in exacting of them more labour than they were able to perform. The most remarkable and unaccountable circumstance attending the beginning of this traffic, is, that it was recommended by a Spanish Bishop, one of the most benevolent friends of the Indians, whom he could not bear to see so wantonly destroyed by his countrymen. When they pressed him with this difficulty, "How shall our plantations be cultivated if we may not use the natives as our slaves?" He advised them to send to Africa, for a more robust and patient race of men, who could better bear the fatigue of labour in a warm climate. Thus from a principle of lenity toward the savages of America, he introduced the commerce of slaves from Africa; which has proved destructive to human life and happiness, in the same proportion that it has encouraged avarice, luxury, pride and cruelty.

But do I not see the dawn of that auspicious day which shall put a stop to this infamous

famous traffic, and shall teach mankind that Africans have a native right to liberty and property as well as Europeans and Americans? May these rights ever be respected, and never more be infringed, especially by those who have successfully contended for the establishment of their own.

Let us now turn our attention to another subject of debate, arising from the knowledge of this continent. If the gospel was designed for an universal benefit to mankind, why was it not brought by the Apostles to America, as well as propagated in the several regions of the old continent? To solve this difficulty, it has been alleged that America *was* known to the ancients; and that it was enlightened by the personal ministry of the Apostles.\* With equal propriety it might be solved, by denying that America was at that time inhabited by any human being, and it might not be impossible to maintain this negative position, against any positive proof which can be adduced to the contrary. But both are attended with difficulties which require more  
light

\* See an elaborate Essay on this subject by the late Dr. Samuel Mather.

light to unravel than has yet appeared. If America was peopled at that period, perhaps the state of human society was such, that the wise and benevolent Author of christianity saw no prospect of success, to the propagation of his gospel here, without the intervention of more and greater miracles, than were consistent with divine wisdom or the nature of man to permit.

Nearly akin to this, is another difficulty. The native inhabitants of Peru, for some centuries before the Spanish invasion, are represented as worshippers of the sun; whose universally benignant influence to the world they thought themselves bound to imitate.\* Accordingly their national character was mild, gentle and humane. They made no offensive wars; and when they repelled the invasions of their savage neighbours, and conquered them, it was done with a view to reduce them from their native ferocity, under the government of rational and social principles; and to incorporate them with themselves, that they might enjoy the benefits of their own pacific system. Their code of laws, delivered

\* See Garcilasso de la Vega's Royal Commentations of Peru.

ed by the founder of their empire, was a work of reason and benevolence; and bore a great resemblance to the divine precepts given by Moses and confirmed by Jesus Christ. In short, they seem to have made the nearest approach to the system of christianity, I mean the moral part of it, of any people who had never been formally instructed in its principles.

It would seem then to human reason, that they were fit objects for an apostolic mission; and, that if the pure, simple, original doctrine of the gospel had been preached to them they would readily have embraced it.

But when we find that these mild and peaceful people were invaded by avaricious Spaniards, under a pretence of converting them to the catholic faith; when instead of the meek and humble language of a primitive evangelist, we see a bigoted Friar gravely advancing at the head of a Spanish army, and, in a language unknown to the Peruvians, declaring that their country was given to his nation, by the Pope of Rome, God's only vicar on earth, and commanding them to receive their new masters on pain of death; when we consider this parade of arrogant hypocrisy

pocriſy as the ſignal for ſlaughter, and ſee the innocent victims falling by the ſword of theſe miniſters of deſtruction ; when we ſee the whole nation vanquiſhed, diſheartened, and either murdered or reduced to ſlavery, by their ſavage conquerors ; when inſtead of the worſhip which they addreſſed to the luminary of heaven, and which needed but one ſtep more to conduct them to the knowledge of its inviſible Creator, we ſee the pomp of Popiſh idolatry, with the infernal horrors of the Inquiſition introduced into their country ; our aſtoniſhment is excited to the higheſt degree, and we can only exclaim, “ Thy judgments, O Lord, are a great deep ! and thy ways are paſt finding out !”

It would give me the greateſt pleaſure, if in concluding this diſcourſe I could ſay any thing, with reſpect to the propagation of chriſtianity, among the original natives of America, which could be conſtrued into a fulfilment of the prediction of Daniel, concerning the progreſs of knowledge.

Every European nation, which poſſeſſes any conſiderable ſhare of the continent, has made this deſireable work a part of their profeſſed deſign ; in planting and ſettling the country ;

country ; and it must be acknowledged that some very zealous and well meant endeavours have been made, by men who had neither wealth nor power in their view ; but the success has not been answerable to the goodness of the design, nor to the wishes of those who have engaged in it. If we survey the whole continent, from the first discovery of America, to the present time, the number of converts to christianity, among the Indians, bears but a small proportion to those, who have been destroyed either by war, by slavery or by spirituous liquors. And, with respect to many of those who have been called converts, it may justly be inquired, whether any thing more can be said in favour of their conversion, than that they have exchanged their original superstitions, for others, more glittering and refined.

If the truths of our holy religion are to be propagated among the savages, it will become us to consider, whether we had not better first agree among ourselves, what these truths are. For whilst they see diversities of opinion among us, and that some of the more zealous advocates of particular tenets, are endeavouring to instil the peculiarities of their respective

tive sects among them, and to prejudice them against others ; the native sagacity with which these people are endowed will lead them to avoid confounding themselves with our distinctions, and to retain the religion of their ancestors, till they can find one, more free from perplexity, than christianity appears by the diversity of our opinions concerning it.

It is also worthy of consideration, whether the vicious lives and conduct of our own people, and especially those on the frontiers, with whom the Indians are most acquainted, be not a great obstruction to the spreading of divine knowledge among them. It is very natural to estimate the goodness of any religion, by the influence which it appears to have on those who profess it ; and, if they are to regard the conduct of the people by whom they have been cheated, robbed, and murdered, as a specimen of the influence of christianity on the human mind, it would be a greater wonder that they should embrace it than reject it.

If the christian religion is to be propagated, without the assistance of miracles, among the savages of this continent, it must be in some such manner as the Moravians have attempted.

ed. These people seem to have an art of attaching savage nations to their faith and manners, and of forming them into civilized and laborious society, beyond any other denomination of christians ; and, for the honour of the common cause, I cannot but wish them all that support and encouragement which their zealous and benevolent efforts deserve.

It is much to be wished, that the spirit of bigotry and the *shibboleth* of party were totally abolished ; that the christian religion may appear in its native simplicity and purity, and that the professors of it would distinguish themselves by that love, that meekness and gentleness which marked the character of its author and his primitive followers. By these marks all men will know us to be his disciples ; our light will so shine before men, that they will see our good works, and glorify our father who is in heaven.

Notwithstanding any present unfavourable appearances, yet we have the greatest reason to expect that the time will come when knowledge will universally prevail ; when speculative truth will be reduced to practice, and men will be led to a devout acknowledgement of the only true God, and of Jesus Christ  
whom

whom he hath sent, evidenced by a careful obedience to the laws of virtue and righteousness. Then will "the earth be full of the knowledge of the Lord as the waters cover the sea." Then will be fulfilled those sublime predictions of the inspired Isaiah. "I will bring thy seed from the east and gather them from the west; I will say to the north, give up; and to the south, keep not back, bring my sons from far and my daughters from the ends of the earth. Thy gates shall be open continually, they shall not be shut day nor night; because the abundance of the sea shall be converted to thee, the forces of the Gentiles shall come to thee. Violence shall no more be heard in thy land, wasting nor destruction within thy borders; but thy walls shall be salvation and thy gates praise. Thy sun shall no more go down, neither shall thy moon withdraw itself; for the Lord shall be thy everlasting light, and thy God shall be thy glory. Thy people also shall be all righteous; they shall inherit the land forever, the branch of my planting, the work of my hand that I may be glorified. I the Lord will hasten it in his time."

## O D E

FOR THE 23d OF OCTOBER, 1792.

*Sung after the Discourse, by Mr. REA and a select  
Choir, accompanied by the Organ.*

## I.

WHEN form'd by GOD's creating hand,  
This beauteous fabric first appear'd;  
Eternal Wisdom gave command,  
All Nature with attention heard.

## II.

" Here, *Ocean*, roll thy swelling tide ;  
" Here spread thy vast Atlantic main ;  
" From European eyes to hide [reign."  
" That Western World, which bounds thy

## III.

Whilst *Ocean* kept his sacred charge,  
And fair COLUMBIA lay conceal'd ;  
Through Europe, *Discord* roam'd at large,  
Till *War* had crimson'd every field.

## IV.

Black *Superstition's* dismal night  
Extinguish'd *Reason's* golden ray ;  
And *Science*, driven from the light,  
Beneath monastic rubbish lay.

## V.

## V.

The *Crown* and *Mitre*, close ally'd,  
 Trampled whole nations to the dust ;  
 Whilst *FREEDOM*, wandering far and wide,  
 And pure *RELIGION*, quite were lost.

## VI.

Then, guided by th' Almighty Hand,  
*COLUMBUS* spread his daring sail ;  
*Ocean* receiv'd a new command,  
 And *Zephyrs* breath'd a gentle gale.

## VII.

The Western World appear'd to view,  
 Her friendly arms extended wide ;  
 Then *FREEDOM* o'er th' Atlantic flew,  
 With pure *RELIGION* by her side.

## VII.

Tyrants with mortal hate pursu'd ;  
 In vain their forces ~~they~~ employ ;  
 In vain the Serpent pours his flood,\*  
 Those heaven-born Exiles to destroy.

## IX.

" No weapon form'd against my flock  
 " Shall prosper," saith th' Almighty Lord ;  
 " Their proudest threatenings thou shalt mock,  
 " For I will be thy shield and sword.

## H

## X.

\* Rev. xii, 15.

## K.

“ Sweet peace and heav’nly truth shall shine  
 “ On fair COLUMBIA’s happy ground ;  
 “ There FREEDOM and RELIGION join,  
 “ And spread their influence all around.”

## C H O R U S.

Hail ! GREAT COLUMBIA ! favour’d soil ;  
 Thy fields with plenty crown thy toil ;  
 Thy shore, the seat of growing wealth ;  
 Thy clime the source of balmy health.

From thee proceeds the virtuous plan ;  
 To vindicate the *Rights of Man*.  
 Thy fame shall spread from pole to pole,  
 Whilst everlasting ages roll.



# DISSERTATION I.

ON THE CIRCUMNAVIGATION OF *AFRICA*  
BY THE ANCIENTS.

**T**HE authenticity of historical traditions on this subject hath been questioned by several writers ancient and modern. I shall here place in one view, what evidence hath been produced on both sides of the question, as far as I have had opportunity to inquire; with such observations as have occurred to me during the inquiry.

The first navigators of whom we have any account were the Phenicians, who were scattered along the coasts of the Mediterranean and of the Red Sea. As early as the days of Moses, they had extended their navigation beyond the pillars of Hercules, on the western coast of Africa, toward the south; and as far northward as the island of Britain, whence they imported tin and lead,\* which according to the universal testimony of the ancients, were not then found in any other country.

From

\* See Numbers, Chap. xxxi. ver. 22.

From the accounts given in ancient history of the expeditions of Sesostris, King of Egypt, some have been led to conclude, that he made a discovery of *all* the coasts of Africa.\* However this might be, there is no doubt that he opened, or revived a commercial intercourse with India and Ethiopia, by way of the Red Sea. It hath also been thought, that the voyages of the Phenicians and Hebrews to Ophir, in the time of Solomon, were nothing more nor less than circumnavigations of Africa.\*

But, leaving these for the present in the region of conjecture; the earliest regular account which we have, of any voyage round the continent of Africa, is that performed by order of Necho, King of Egypt, and recorded by Herodotus; the most ancient historian, except the sacred writers, whose works have come down to our time. His character as a historian is, "candid in his acknowledgment of what is uncertain, and absolute when he speaks of what he knows." The date of Necho's reign is fixed by Rollin 616 years before Christ. The date of Herodotus's history is placed

\* Forster's History of Voyages and Discoveries, page 7. † Ibid.

placed by Dufresnoy in the third year of the 83d Olympiad answering to 446 years before Christ. So that he must have penned his narration of this voyage, in less than two centuries after it was performed. I shall give his account at large, in a literal translation, from the Geneva Edition of his work, in Greek and Latin, by Stephanus.\* In describing the several great divisions of the earth, he speaks thus :

“ I wonder at those who have divided and distinguished Libya,† Asia and Europe; between which there is not a little difference. If indeed Europe agrees with the others in length, yet in breadth it does not seem to me, worthy to be compared. For Libya shews itself to be *surrounded by the sea*, except where it joins to Asia. Necos, King of the Egyptians, being the first of those, whom we know, to demonstrate it. After he had desisted from digging a ditch from the Nile to the Arabic gulf [in which work above twenty thousand Egyptians perished ; he betook himself to raising armies and building ships, partly in the

\* Lib. iv. Cap. 42.

† Libya is the name by which the whole continent of Africa was called by the Greeks.

the north sea\* and partly in the Arabian gulf, at the Red Sea, of which they yet shew some remains.†] He sent certain Phenicians in ships, commanding them, that having passed the pillars of Hercules, they should penetrate the north sea, and so return to Egypt. The Phenicians therefore loosing from the Red Sea, went away into the southern sea, and, directing their ships to land, *made a seed time*, that when autumn should come, they might expect a harvest, and might assiduously coast Libya. Then, having gathered the harvest, they sailed.‡ Thus, two years being consumed; in the third year, coming round the pillars of Hercules, they returned to Egypt; reporting things which with me have no credit, but may perhaps with others, that in *sailing round Libya they had the sun on the right hand.*§ In this manner it was first known.

“ In

\* By the north sea is meant the Mediterranean, which lies north of Egypt.

† Lib. ii. Cap. 48.

‡ “Into whatever part of Libya seamen came, they waited for harvest, and when they had reaped, they loosed from the shore.” (Note of Stephanus.)

§ i. e. They being in the southern hemisphere and sailing to the westward, had the sun to the right hand or to the northward.

"In the second place, there have been Carthaginians, who have said, that a certain Sataspes, son of Teaspis, a man of the Achæmenides did not sail round Libya, when he was sent; but being deterred by the length of the navigation and the solitude of the country returned home, having not fulfilled the labour which his mother enjoined him. For he had violated a virgin daughter of Zopyrus, the son of Megabyfus; and for that cause, being by Xerxes condemned to be crucified, his mother, who was sister to Darius, liberated him; because he said, he had rather impose on himself that punishment, than submit to the King's command. Wherefore it became necessary for him to sail round all Libya, till he should come to the Arabian Gulf. Xerxes consenting to this, Sataspes went into Egypt, and, having there taken a ship and companions, sailed to the pillars of Hercules. Having passed them, and having doubled the promontory of Libya called Syloes,\* he kept a southern course. Having traversed much of the sea in many months,

and

\* Now called Cape Bojador in the 26th degree of north latitude.

and finding much more time necessary, he turned about and came back to Egypt. Returning to Xerxes, he reported, that in visiting the remotest coasts, he had seen small men, clothed in Phenician garments; who at the approach of his ships, fled to the mountains and left their villages; which he entered, and took nothing from them but cattle. He gave this reason for not having sailed round Libya, that his ship could sail no farther; but was stopped. Xerxes did not believe him, and because he had not performed his engagement, ordered him to undergo his destined punishment."

To the authenticity of this circumnavigation of the African continent, the following objections have been made.

First, it is said that "the vessels which the ancients employed, were so small as not to afford stowage for provisions, sufficient to subsist a crew during a long voyage."

Secondly, "their construction was such that they could seldom venture to depart far from land, and their mode of steering along the coast was so circuitous and slow, that we may pronounce a voyage from the Mediterranean to India, by the Cape of Good Hope,

to have been an undertaking beyond their power to accomplish, in such a manner as to render it in any degree subservient to commerce. To this decision, the account preserved by Herodotus of a voyage performed by some Phenician ships employed by the King of Egypt, can hardly be considered as repugnant."\*

I have chosen to consider both these objections together, because that each one helps to destroy the other. For if the vessels were so small, as not to contain provisions for a long voyage, this was one reason for the navigators to keep their course near the land; that they might find water fruits, game and cattle on the shore, as well as fish on the shoals and rocks near the coast, for their subsistence. And if it was their design to keep near the land, for the sake of discovery, small vessels were best adapted

\* Robertson's India, p. 175, American edition.

The objection taken from this learned author were not made directly against the voyage mentioned by Herodotus; but rather against the possibility of a passage to India by way of the Atlantic Ocean, and round the African continent. However, as he brings this voyage into view in the same argument, and speaks of it dubiously, it is conceived that his sentiments are not misrepresented in the above quotations.

adapted to the purpose; because they could pass over shoals and through small openings, between islands and rocks, which are generally situate near the coasts of great continents. Besides, if the vessels were small they could carry but small crews, who would not require very large quantities of provision.

But Herodotus has helped us to solve the difficulty respecting provisions, in a manner perfectly agreeable to the practice of antiquity, though unknown to modern navigators. They went on shore and sowed corn, and when it was ripe gathered the harvest. This enables us to account for two circumstances attending the voyage of Necho; the length of time employed, and the supply of provision, at least of bread, consumed in it.

Nor was this sowing and reaping any loss of time; for the monsoons in the Indian ocean would not permit them to proceed any faster. A ship sailing from the Red Sea with the N. E. monsoon, in the summer or autumn, would meet with the S. W. monsoon, in the beginning of December, which must have detained her in some of the harbours, on the eastern coast of Africa, till the next April. During this time in that warm climate, corn

might

might be sown and reaped; and any other articles, either of provision or merchandise, might be taken on board. Then the N. E. monsoon would carry her to the southern parts of Africa, into the region of variable winds. This regular course and changing of the monsoons was familiarly known to the navigators of Solomon's ships, and was the cause of their spending three years, in the voyage to and from Ophir. "In going and returning, they changed the monsoon six times, which made thirty six months. They needed no longer time to complete the voyage, and they could not perform it in less."

It is not pleaded, that the voyage of Necho was undertaken for the sake of commerce; or if the authenticity of it were established, that it would prove the practicability of a voyage from the Mediterranean to India, round the Cape of Good Hope, by the vessels then in use, and the nautical skill then acquired. The voyage of which Herodotus speaks might have been a voyage of discovery; such an one as was perfectly agreeable to the genius of the people by whom it was performed, and of the prince, by whose order and at whose expense

expense it was undertaken. "The progress of the Phenicians and Carthaginians, in their knowledge of the globe, was not owing entirely to the desire of extending their trade from one country to another: Commerce was followed by its usual effects, among both those people. It awakened curiosity, enlarged the ideas and desires of men, and incited them to bold enterprises. Voyages were undertaken, the sole object of which was to *discover new countries and to explore unknown seas.*"\*

The knowledge acquired in these voyages of discovery might afterward be subservient to commerce; and though the Phenicians might not think it convenient, to circumnavigate Africa, more than once, yet that they carried on a commercial intercourse with different parts of that country, and particularly with places situate on the eastern coast, in the Indian ocean, we have evidence from the sacred writings. In the reign of Solomon "the king's ships with the servants of Hiram and the navy of Tharshish every three years brought ivory,† apes and peacocks, besides silver and the gold of *Ophir*," which is with great reason supposed

\* Robertson's America—Vol. I. p. 11, 4th edit.

† 2 Chron. viii. 18. ix. 21.

to be the country now called *Sofala* on the eastern coast of Africa, in the southern hemisphere ; as the learned Bruce, in his late book of travels, has satisfactorily proved.

The prophet Ezekiel, who was contemporary with Necho, King of Egypt, in the account which he gives of the merchandise of Tyre, enumerates several commodities, which it is well known belong to Africa, "horns of ivory and ebony, and the persons of men."\* We may form some idea of the strength and materials of the ships of the Tyrians, and of their skill in navigation, from the following passages in his apostrophe to Tyrus. "They have made all thy ship-boards of fir trees of Senir ; they have taken cedars of Lebanon to make masts for thee ; of the oaks of Bashan have they made thine oars. Thy wise men, O Tyrus, were thy pilots. The ancients of Gebal, the wise men thereof were thy calkers. The ships of Tharshish did sing of thee ; thou wast replenished and made very glorious in the midst of the seas ; thy rowers have brought thee into great waters." Though we have no particular description of the size or model of their ships ; yet they certainly had masts and  
sails

\* Ezekiel, chap. xxvii. ver. 13, 15.

sails and oars ; their pilots and calkers were wise men, and they were not afraid to sail in great waters, by which is probably meant the ocean, in distinction from the Mediterranean.

Of the form and structure of the Grecian vessels we have a more particular knowledge.

They were of inconsiderable burden, and mostly without decks. They had only one mast, and were strangers to the use of anchors.\*

But then it must be remembered, that "the Phenicians, who instructed the Greeks in other useful arts, did not communicate to them that extensive knowledge of navigation, which they themselves possessed."†

We may hence conclude that the ships of the Phenicians were much superior to the Grecian vessels ; that they were fitted with masts ; sails and oars, and with expert pilots. We have then no evidence from the structure of their vessels or their mode of sailing, to warrant a doubt of the ability of their ships or seamen, to perform a voyage round the continent of Africa in three years.

To an European theorist such a voyage may seem less practicable than to an American.

\* Robertson's America—Vol. I. p. 15.

† Ibid. p. 14.

can. The Europeans have usually employed none but ships of great burden, in their trade to India and China; but since the Americans have visited those countries, sloops of fifty or sixty tons have sailed round the Cape of Good Hope to China, and round Cape Horn to the northwest coast of America, and across the north Pacific Ocean. If any doubt can yet remain, it may be entirely removed by the recollection of a voyage performed in the year 1789, by Lieutenant Bligh of the British navy; who, being turned adrift by his mutinous crew, traversed the south Pacific Ocean, above twelve hundred leagues, in a boat of twenty three feet long, without a deck, in much stormy weather, with scanty provisions; and having passed many dangerous rocks and shoals, among unknown islands, arrived in forty one days at a Dutch settlement in the Moluccas.\* The objections then against the reality of Necho's voyage, from the size and structure of the Phœnician vessels, and the want of provision are not so formidable on examination as at the first appearance.

A third

\* See the printed narrative by Lieut. Bligh.

A third objection against the credibility of this early circumnavigation is, that "several writers of the greatest eminence among the ancients, and most distinguished for their knowledge of geography, regarded this account rather as an amusing tale, than the history of a real transaction; and, either entertained doubts concerning the possibility of sailing round Africa, or absolutely denied it."\* That the Roman geographers and historians did doubt and disbelieve the story is very evident; and the causes are not far to be sought. The first was the jealousy of the Phenicians. "Whatever acquaintance with the remote regions of the earth the Phenicians or Carthaginians acquired, was concealed from the rest of mankind with a mercantile jealousy. Every thing relative to the course of navigation was a secret of state as well as a mystery of trade. Extraordinary facts are recorded concerning their solicitude to prevent other nations from penetrating into what they wished should remain undivulged."† One of these extraordinary facts is thus related by Strabo. The Romans being desirous to discover

\* Robertson's India, p. 175.

† Robertson's America, vol. I. p. 13.

cover the places, whence the Carthaginians fetched tin and amber "sent a vessel, with orders to sail in the wake of a Phenician vessel." (This being observed by the Carthaginian; he purposely ran his vessel among rocks and sand banks; so that it was lost, together with that of the inquisitive Roman. The patriotic commander of the former was indemnified for his loss by his country."\*

A second reason was the pride of the Romans. If, as Pope tells us, "With honest scorn the first fam'd Cato view'd  
"Rome learning arts from Greece whom she subdu'd;" the same pride would make their wise men scorn to learn geography or navigation, theoretically, from those who were best able to teach them. It is acknowledged that the Romans "did not imbibe that commercial spirit and ardor for discovery which distinguished their rivals."† It must also be observed, that there was but little intercourse between them; and that the Carthaginians were deficient in those sciences for which the Romans

\* Forster's History of Voyages and Discoveries, chap. I.

† Robertson's America, vol. I. p. 14.

Romans were famous. Among the Phenicians and Carthaginians, the study and knowledge of their youth were confined to writing, arithmetic and mercantile accounts; whilst polite literature, history and philosophy were in little repute; and by a law of Carthage, the study of the Greek language was prohibited; lest any communication should be carried on with their enemies.\*

A third reason was the opinion which the wisest men among the Romans had formed, and to which they obstinately adhered, concerning the five zones, and the impossibility of passing from one hemisphere to the other, because of the torrid zone lying between. This doctrine of the zones is so fully represented by Dr. Robertson† that I need only refer the reader to what he has written on the subject.

But notwithstanding the doubts and the infidelity of the Roman Philosophers, and the great deference paid to them by this learned and cautious inquirer; there is one circumstance which has *almost* convinced him of the

\* Rollin's Ancient History, book II. part I. sect. 7.

† Robertson's America, vol. I; note 8.

the reality of Necho's voyage, as related by Herodotus. It is this, that the Phenicians, in sailing round Africa, "had the sun on their right hand ;" which Herodotus, with his usual modesty and candor says, " with me has no credit, though it may with others." On this the Doctor judiciously remarks, "The science of astronomy was in that early period so imperfect, that it was by experience only, that the Phenicians could come at the knowledge of this fact; they durst not, without this, have ventured to assert what would have appeared to be an improbable fiction."\* Indeed if they had not known it by experience, there is not the least conceivable reason for their inventing such a report ; nor even for the entrance of such an idea into their imagination. The modest doubt of Herodotus is another argument in favour of the truth and genuineness of it ; for as he had no experience to guide him, and the idea was new, it was very proper for him to hesitate in admitting it, though he showed his impartiality by inserting it in his relation.

So much for the voyage performed by the Phenicians under the orders of Necho, which

is

\* Robertson's India, note 54.

is the *first* proof produced by Herodotus of his position that "Libya is surrounded by the sea, except where it joins Asia."

His *second* proof is not so conclusive, nor the design of his introducing it so obvious. It is the relation of a voyage undertaken by Sataşpes a Persian, whose punishment was commuted from crucifixion to sailing round Libya ; which voyage he began, but returned by the same route, not having completed it. The reason which he gave for returning was, that "his ship was stopped and could sail no farther," which his sovereign did not believe, and therefore put him to death, to which he had before been condemned.

The only evidence which this story can afford is, that the circumnavigation of the African continent was, at that time, thought practicable. Sataşpes thought so, or he would not have proposed it to his sovereign ; and Xerxes thought so, or he would not have disbelieved the story of the ship being stopped ; by which expression was meant that the sea was no farther navigable, by reason of land.

The exact date of this voyage is not ascertained ; but as Xerxes reigned twelve years,

and

and died in the year 473 before Christ, it could not have been much more than thirty years, preceding the time when Herodotus published his history.

The voyage of Hanno the Carthaginian, is thus briefly mentioned by Pliny. "In the flourishing state of Carthage, Hanno having sailed round from Gades [Cadiz] to the border of Arabia, committed to writing an account of his voyage; as did Himilco, who was at the same time sent to discover the extreme parts of Europe."\* The character of Pliny, as a historian is, that "he collected from all authors, good and bad, who had written before him; and that his work is a mixture of truth and error, which it is difficult to separate." An instance in confirmation of this remark occurs in this very chapter; where he speaks of some merchants, sailing from India, and thrown by a tempest, on the coast of Germany. He also mentions a voyage, made by Eudoxus; from the Arabian gulf to Gades, and another of Coelius Antipater from Spain to Ethiopia.

Of these voyages, that of Hanno is best authenticated. He sailed from Carthage with

sixty

\* Pliny's Natural History, lib. 2, cap. 67.

sixty galleys, each carrying fifty oars, having on board thirty thousand men and women, with provisions and articles of traffic. The design of this equipment was to plant colonies along the western shore of Africa, which the Carthaginians, from priority of discovery, and from its contiguity to their territory, considered as their own dominion. Hanno was absent five years, on this colonizing expedition; but there is no certainty of his having proceeded any farther southward, than the Bay of Benin, in the eighth degree of north latitude. A fragment of his journal, which at his return he deposited in the temple of Saturn, at Carthage, is now extant; and though it has been treated as fabulous by several authors, ancient and modern, yet its authenticity has been vindicated by M. Bougainville, in the 26th volume of the Memoirs of the Royal Academy of Inscriptions and Belles Lettres; where a French translation of it is given from the Greek, into which language it was rendered from the original Punic.

Concerning the voyage of Eudoxus, the following account is given by Bruce.\* He was sent

\* Travels, book II. chap. V. The voyage of Eudoxus was originally written by *Posidonius*, but I have not met with that author.

sent by Ptolemy Euergetes, as an ambassador to India, to remove the bad effects of the King's conduct in the beginning of his reign, who had extorted contributions from merchants of that and other trading countries. Eudoxus returned after the King's death, and was wrecked on the coast of Ethiopia ; where he discovered the prow of a ship, which had suffered the same fate. It was the figure of a horse, and the sailors, who had been employed in European voyages, knew this to have been part of one of those vessels, which traded on the Atlantic ocean ; of which trade Gades was the principal port. This circumstance amounted to a proof, that there was a passage round Africa, from the Indian to the Atlantic ocean. The discovery was of no greater importance to any person, than to Eudoxus himself ; for, some time afterward, falling under the displeasure of Ptolemy Lathyrus, and being in danger of his life, he fled ; and embarking on the Red Sea, sailed round Africa and came to Gades.

This voyage of Eudoxus was treated as a fable by Strabo, the Roman geographer, who wrote about a century and a half after the  
time

time when it is said to have been performed. The true cause of the incredulity of him and of other Roman authors in respect to these voyages and discoveries, was the doctrine of the zones, to which they inflexibly adhered, and which effectually precluded all conviction.

These are all the evidences which I have had opportunity to examine respecting the question of the circumnavigation of Africa,\* and upon the whole there appears to be this peculiarity attending the subject, that it was believed by those who lived nearest to the time when the voyage of Necho is said to have been made ; and, that in proportion to the distance of time afterward, it was doubted, disbelieved and denied ; till its credibility was established beyond all doubt by the Portuguese adventurers in the fifteenth century.

\* Dr. FORSTER, in his history of Voyages and Discoveries (chap. I) refers to three German authors, GESNER, SCHLOZER and MICHAELIS, who have written on this subject, and observes, that "the circumnavigation of Africa by the Phenicians and Egyptians is proved almost to a demonstration."

# APPENDIX

TO

## DISSERTATION I.

*The following Table exhibits a Chronological Detail of Facts and Opinions, relative to the circumnavigation of AFRICA.*

*Years before Christ.*

616. **N**ECHO began to reign in Egypt, and reigned 16 years. *Rollin.*

In his reign the Phenicians sailed round Africa from the Red Sea to the pillars of Hercules, and returned to Egypt in three years. *Herodotus.*

588 Ezekiel prophesied against Tyre. *Old Testament.*

485 Xerxes began to reign in Persia, and reigned twelve years. *Rollin.*

In his reign Sataſpes failed to the western coast of Africa, and returned to Egypt. *Herodotus.*

446 Herodotus published his history of the Olympic games. *Dufresnoy.*

445 } Voyage of Hanno, the Carthaginian  
to } to colonize the western coast of  
440 } Africa, completed in five years.

*L*

*Bochart.*

350 Aristotle established the doctrine of the five zones, which had been before taught by Parmenides.

*Dufresnoy and Robertson.*

152 Polybius doubted whether Africa were a continent extending to the south, or a peninsula surrounded by the sea, excepting where it was known to be united with Asia.

*Hampton's Translation.*

116 Ptolemy Lathyrus, began to reign in Egypt, and reigned ten years.

*Dufresnoy.*

In his reign, is placed, the voyage of Eudoxus from the Red Sea, round Africa to Cadiz.

*Bruce.*

55 Cicero delivered the doctrine of the five zones, of which two only were habitable, the middle zone being scorched with the sun.

*Somnium Scipionis.*

*Years after  
Christ.*

29 Strabo professed to know nothing with certainty respecting the southern parts of Africa, and treated the voyage of Eudoxus as a fable.

*Strabo.*

74 Pliny denied any communication between the northern and southern temperate zones ; but spoke of the voyages of Hanno, Eudoxus and others. *Pliny.*

211 Ptolemy the philosopher, supposed Africa not to be furrounded by the sea ; but to extend in its breadth eastwardly, and to be joined to India. *Ptolemy.*

The opinions of these philosophers were implicitly believed for the succeeding twelve centuries.

1497 Vasquez de Gama passed the southern promontory of Africa, on his voyage to India. *Robertson.*



any direct communication be-  
tween the northern and southern  
hemispheres, the parts of  
the voyages of Hanno, Euthyres,  
and others, who visited Af-  
rica, are not to be founded by the  
fact that it is so extensive in its breadth  
eastwardly, and so to be joined to  
India.  
The opinions of these philosophers  
were implicitly believed for the  
preceding twelve centuries, in-  
cluding the time called the Southern  
Promontory of Africa, on this  
voyage to India.



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## DISSERTATION II.

AN EXAMINATION OF THE PRETENSIONS OF  
MARTIN BEHAIM, TO A DISCOVERY  
OF AMERICA, PRIOR TO THAT OF CHRIS-  
TOPHER COLUMBUS.

SO much has already been well written on this subject by Dr. ROBERTSON, that I should not have thought of adding any thing to it ; had not a Memoir appeared in the second volume of the Transactions of the American Philosophical Society\* at Philadelphia, in which the pretensions of Behaim are revived by M. OTTO ; who has produced some authorities which he had obtained from Nuremberg, an imperial city of Germany, and which appear to him, “ to establish in the clearest manner a discovery of America anterior to that of Columbus.”

It is conceded that Behaim was a man of learning and enterprise ; that he was con-  
temporary

\* No. 35, p. 263.

temporary with Columbus and was his friend; that he pursued the same studies and drew the same conclusions; that he was employed by King John II. in making discoveries; and, that he met with deserved honour for the important services which he rendered to the Crown of Portugal. But, there are such difficulties attending the story of his discovering America, as appear to me insuperable. These I shall state; together with some remarks on the authorities produced by M. Otto.

The first of his authorities contains several assertions which are contradicted by other histories; \* (1) That Isabella, daughter of John, King of Portugal, reigned after the death of Philip, Duke of Burgundy, surnamed the Good. (2) That to this lady, when regent of the Dutchy of Burgundy and Flanders, Be-haim paid a visit in 1459, and (3) that having informed her of his designs, he procured a vessel in which he made the discovery of the island of Fayal, in 1460.

It

\* Memoirs of Philip de Comines. Mezeray's and Henault's history of France. Collier's Dictionary.

It is true that Philip, Duke of Burgundy and Flanders, surnamed the Good, married Isabella the daughter of John I. King of Portugal ; but Philip did not die till 1467, and was immediately succeeded by his son Charles, surnamed the Bold, then thirty-four years of age. There could therefore have been no interregnum, nor female regent after the death of Philip ; and if there had been, the time of Behaim's visit will not correspond with it ; that being placed in 1459, eight years before the death of Philip. Such a mistake, in point of fact, and of chronology, is sufficient to induce a suspicion that the " archives of Nuremberg " are too deficient in accuracy to be depended on as authorities.

With respect to the discovery of Fayal, in 1460, M. Otto acknowledges that it is " contrary to the received opinion ; " and well he might ; for the first of the Azores, St. Maria was discovered in 1431 ; the second, St. Michael in 1444 ; the third, Terceira in 1445 ; and before 1449, the islands, St. George, Graciosa, Fayal and Pico, were known to the Portuguese.

Portuguese.\* However true it may be that Behaim settled in the island of Fayal, and lived there twenty years ; yet his claim to the discovery of it must have a better foundation than the “ archives of Nuremberg,” before it can be admitted.

The genuine account of the settlement of Fayal, and the interest which Behaim had in it, is thus related by Dr. Forster, a German author of much learning and good credit.

“ After the death of the infant Don Henry [which happened in 1463,] the island of Fayal was made a present of by [his sister] Isabella, Dutchess of Burgundy, to Jobst von Hurter, a native of Nuremberg. Hurter went in 1466, with a colony of more than 2000 Flemings of both sexes, to his property, the isle of Fayal. The Dutchess had provided the Flemish emigrants with all necessaries for two years, and the colony soon increased. About the year 1486, Martin Behaim married a daughter of the Chevalier Jobst von Hurter, and had a son by her named Martin.—Jobst von Hurter, and Martin Behaim, both natives of

\* Forster's history of voyages and discoveries, p. 256, 257, Dublin edition.

of Nuremberg, were Lords of Fayal and Pico."\*

The date of the supposed discovery of America, by Behaim, is placed by M. Otto, in 1484, eight years before the celebrated voyage of Columbus. In the same year we are told† that Alonzo Sanchez de Huelva was driven by a storm to the westward for twenty-nine days; and saw an island, of which at his return he gave information to Columbus; from both these supposed discoveries this conclusion is drawn, "That Columbus would never have thought of his expedition to America, had not Behaim gone there before him." Whether it be supposed that Behaim and Sanchez sailed in the same ship, or that they made a discovery of two different parts of America, in the same year, it is not easy to understand from the authorities produced; but what destroys the credibility of this plausible tale, is, that Columbus had formed his theory, and projected his voyage, at least ten years before; as appears by his correspondence

\* Forster's history of voyages, and discoveries, p. 257, 258, 259.

† Garcilasso de la Vega's Royal commentaries. Preface. Purchas. vol. V. p. 1454.

ence with Paul, a learned physician of Florence, which bears date in 1474.\* It is uncertain at what time Columbus first made his application to the King of Portugal, to fit him out for a western voyage; but it is certain that after a negociation with him on the subject, and after he had found out the secret and unsuccessful attempt which had been made to anticipate a discovery; he quitted that kingdom in disgust, and went into Spain, in the latter end of the year 1484.† The authority of these facts is unquestioned; and from them it fully appears, that a prior discovery of America, by Behaim or Sanchez, made in 1484, could not have been the foundation of the enterprize of Columbus.

M. Otto speaks of letters written by Behaim in 1486, in the German language; and preserved in the "archives of Nuremberg" which support this claim to a prior discovery. As these letters are not produced, no certain opinion can be formed concerning them; but from the date of the letters, and from the voyages which Behaim actually performed in the

\* Life, chap. viii.

† Ibid. chap. xii.

the two preceding years, we may with great probability suppose, that they related to the discovery of CONGO, in Africa; to which Behaim has an uncontroverted claim.

I will now state the facts relative to this event, partly from the authorities cited by M. Otto; and partly from others.

Dr. Robertson places the discovery of Congo and Benin in 1483, and with him Dr. Forster agrees. The authors of the modern universal history\* speak of two voyages to that coast, the first in 1484; the second in 1485; both of which were made by Diego Cam,† who is said to have been one of the most expert sailors and of an enterprising genius. From the chronicle of Hartman Schedl, as quoted by M. Otto, we are informed, that Behaim sailed with Cam, in these voyages, which are described in the following terms. "These two, by the bounty of heaven, coasting along the southern ocean, and having crossed the equator, got into the other hemisphere;

\* Vol. XVI. p. 133, 135.

† Diégo is the Spanish name of James, in Latin Jacobus, and in Portuguese, Jago. Cam is in Latin, Camus or Canus, and in Spanish, Cano; these different names are found in different authors.

isphere ; where, *facing to the eastward*, their shadows projected toward the south, and right hand." No words could be more completely descriptive of a voyage from Portugal to Congo, as any person may be satisfied by inspecting a map of Africa ; but how could M. Otto imagine that the discovery of America was accomplished in such a voyage as this ? " Having finished this cruise (continues Schedl) in the space of 26 months, they returned to Portugal, with the loss of many of their seamen, by the violence of the climate." This latter circumstance also agrees very well with the climate of the African coast ;\* but Schedl says not a word of the discovery of America.

M. Otto goes on to tell us " that the most positive proof of the great services rendered to the crown of Portugal by Behaim, is the recompense bestowed on him by King John II ; who in the most solemn manner, knighted him, in the presence of all his court." Then follows a particular detail of the ceremony of installation, as performed on the 18th of February, 1485, and M. Otto fairly owns that this was " a reward for the discovery of Congo."

\* See Brooks's Gazetteer, *Benin*.

go." Now let us bring the detached parts of the story together.

Behaim was knighted on the 18th of February, 1485, for the discovery of Congo, in which he had been employed 26 months preceding ; having within that time made two voyages thither in company with Diego Cam. It will follow then that the whole of the preceding years, 1484 and 1483 were taken up in these two voyages. This agrees very well with the accounts of the discovery of Congo, in Robertson and Forster, and does not disagree with the modern universal history, as far as the year 1484 is concerned ; which unfortunately is the year assigned for Behaim's discovery of " that part of America called Brasil, and his sailing even to the Straights of Magellan."

The only thing in M. Otto's memoir which bears any resemblance to a solution of this difficulty is this. " We may suppose that Behaim, engaged in an expedition to Congo, was driven by the winds to Fernambouc, and from thence by the currents toward the coast of Guiana." But suppositions without proof will avail little ; and suppositions against proof

proof will avail nothing. The two voyages to Congo are admitted. The course is described ; and the time is determined ; and both these are directly opposed to the supposition of his being driven by winds and currents to America. For if he had been driven out of his course and had spent "several years in examining the American islands, and discovering the straight which bears the name of Magellan ;"\* and if one of those years was the year 1484, then he could not have spent 26 months preceding February, 1485, in the discovery of Congo ; but of this we have full and satisfactory evidence ; the discovery of America therefore must be given up.

There is one thing further in this memoir which deserves a particular remark, and that is the reason assigned by M. Otto, for which the King of Portugal declined the proposal of Columbus to sail to India by the west. "The refusal of John II. is a proof of the knowledge which that politic prince had *already* procured, of the existence of a new continent, which offered him only barren lands,

inhabited

\* Memoirs, p. 269.

inhabited by unconquerable savages."\* This knowledge is supposed to have been derived from the discoveries made by Behaim. But, not to urge again the chronological difficulty with which this conjecture is embarrassed, I will take notice of two circumstances in the life of Columbus, which militate with this idea. The first is, that when Columbus had proposed a western voyage to King John, and he declined it, "The King by the advice of one Doctor Calzadilla, resolved to send a caravel privately, to attempt that which Columbus had proposed to him ; because in case those countries were so discovered, he thought himself not obliged to bestow any great reward. Having speedily equipped a caravel, which was to carry supplies to the islands of Cabo Verde, he sent it that way which the admiral proposed to go. But those whom he sent wanted the knowledge, constancy and spirit of the admiral. After wandering many days upon the sea, they turned back to the islands of Cabo Verde, laughing at the undertaking, and saying it was *impossible there should be any land in those seas.*"†

Afterward

\* Memoirs, p. 276.

† Life of Columbus, chap. xi.

Afterward “ the King being sensible how faulty they were whom he had sent with the caravel, had a mind to restore the admiral to his favour, and desired that he should renew the discourse of his enterprize ; but not being so diligent to put this in execution as the admiral was in getting away, he lost that good opportunity ; the admiral, about the end of the year 1484, stole away privately out of Portugal for fear of being stopped by the King.”\* This account does not agree with the supposition of a prior discovery.

The other circumstance is an interview which Columbus had with the people of Lisbon, and the King of Portugal, on his return from his first voyage. For it so happened that Columbus on his return was by stress of weather obliged to take shelter in the port of Lisbon ; and as soon as it was known that he had come from the Indies, “ the people thronged to see the natives whom he had brought and hear the news ; so that the caravel would not contain them. Some of them praising God for so great a happiness ; others storming *that they had lost the discovery through their King’s incredulity.*” When

\* Life of Columbus, chap. xii.

When the King sent for Columbus, "he was doubtful what to do ; but to take off all suspicion that he came *from his conquests*, he consented." At the interview, "the King offered him all that he stood in need of for the service of their Catholic Majesties, though he thought, that forasmuch *as he had been a captain in Portugal*, that conquest belonged to him. To which the admiral answered, that he knew of no such agreement, and that he had strictly observed his orders, which were *not to go to the mines of Portugal*, [the gold coast] nor to Guinea."\* Had John II. heard of Behaim's voyage to a western continent, would he not have claimed it by priority of discovery rather than by the commission which Columbus had formerly borne in his service ? Had such a prior discovery been made, could it have been concealed from the people of Lisbon ? And would they have been angry that their King had lost it by his incredulity ? These circumstances appear to me to carry sufficient evidence, that no discovery of America prior to that of Columbus had come to the knowledge of the King of Portugal. In

\* Life, chap. xli.

In answer to the question "Why are we searching the archives of an imperial city for the causes of an event, which took place in the western extremity of Europe?" M. Otto gives us to understand, that "from the fourteenth to the sixteenth centuries, the Germans were the best geographers, the best historians and the most enlightened politicians." Not to detract from the merit of the German literati of those ages, I think we may give equal credit to a learned German author of the present age, Dr. John Reinhold Forster; who appears to have a thorough understanding of the claims not only of his own countrymen, but of others. In his indefatigable researches into the discoveries which have been made by all nations, though he has given due credit to the adventures of Behaim in Congo and Fayal, yet he has not said one word of his visiting America; which he certainly would have done if in his opinion there had been any foundation for it.

He has indeed given us a long detail, with much reasoning, on a discovery made in the 11th century by the Normans, of a country called *Winland*; which he supposes to be the island

island of Newfoundland ; but neither he nor any other writer pretends that the knowledge of this discovery was ever communicated to Columbus. That great man therefore, is justly entitled to the honour of an original discovery of America.



for the first time, and the first time  
the world has ever known  
of the first time, and the first time  
of the first time, and the first time  
of the first time, and the first time



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# A P P E N D I X

TO

## D I S S E R T A T I O N II.

No. I.

LETTERS from PAUL a Physician of *Florence*,  
to CHRISTOPHER COLUMBUS, con-  
cerning the Discovery of the *Indies*.

### L E T T E R I.

To CHRISTOPHER COLUMBUS, PAUL the Phy-  
*sician wisheth health.*

I PERCEIVE your noble and earnest  
desire to sail to those parts where the spice is  
produced; and therefore in answer to a letter  
of yours, I send you another letter, which  
some days since I wrote to a friend of mine,  
and servant to the King of Portugal before  
the wars of Castile, in answer to another he  
wrote to me by his highness's order, upon this  
same account; and I send you another sea-  
chart like that I sent him, which will satisfy  
your demands. The copy of the letter is  
this,

To

To FERDINAND MARTINEZ, canon of Lisbon,  
 PAUL the Physician wisheth health.

I AM very glad to hear of the familiarity you have with your most serene and magnificent King; and though I have very often discoursed concerning the *short* way there is from hence to the Indies where the spice is produced, by sea, which I look upon to be shorter than that you take by the coast of Guinea; yet you now tell me that his highness would have me make out and demonstrate it, so as it may be understood and put in practice. Therefore, though I could better show it him with a globe in my hand, and make him sensible of the figure of the world; yet I have resolved to render it more easy and intelligible, to show this way upon a chart, such as are used in navigation; and therefore I send one to his majesty, made and drawn with my own hand, wherein is set down the utmost bounds of the west, from Ireland in the north, to the farthest part of Guinea; with all the islands that lie in the way. Opposite to which western coast is described the beginning of the Indies, with the islands and places whither you may go, and how far you may bend from the north pole toward

toward the equinoctial, and for how long a time ; that is, how many leagues you may sail, before you come to those places most fruitful in all sorts of spice, jewels and precious stones. Do not wonder if I term that country where the spice grows *west*, that product being generally ascribed to the east ; because those who shall sail westward will always find those places in the west ; and they that travel by land eastward will ever find those places in the east. The strait lines that lie lengthways in the chart, shew the distance there is from west to east ; the others cross them, shew the distance from north to south. I have also marked down in the said chart, several places in India, where ships might put in, upon any storm or contrary winds, or any other accident unforeseen.

Moreover to give you full information of all those places which you are very desirous to know ; you must understand, that none but traders live or reside in all those islands, and that there is as great a number of ships and seafaring people with merchandise, as in any other part of the world ; particularly in a most noble port called *Zacton*, where there  
are

are every year a hundred large ships of pepper loaded and unloaded, besides many other ships that take in other spices. This country is mighty populous, and there are many provinces and kingdoms, and innumerable cities under the dominion of a prince called the great *Kham*, which name signifies King of Kings, who for the most part resides in the Province of *Cathay*. His predecessors were very desirous to have commerce and be in amity with Christians; and 200 years since, sent ambassadors to the Pope; desiring him to send them many learned men and doctors to teach them our faith; but by reason of some obstacles the ambassadors met with, they returned back, without coming to Rome.

Besides, there came an ambassador to Pope Eugenius IV. who told him the great friendship there was between those princes, their people and the Christians. I discoursed with him a long while upon the several matters of the grandeur of their royal structures, and of the greatness, length and breadth of their rivers. He told me many wonderful things of the multitude of towns and cities founded  
along

along the banks of the rivers ; and that there were 200 cities upon one river only, with marble bridges over it, of a great length and breadth, and adorned with abundance of pillars. This country deserves as well as any other to be discovered ; and there may not only be great profit made there, and many things of value found, but also gold, silver, all sorts of precious stones, and spices in abundance, which are not brought into our parts. And it is certain, that many wise men, philosophers, astrologers, and other persons skilled in all arts, and very ingenious, govern that mighty province, and command their armies.

From Lisbon directly westward, there are in the chart 26 spaces, each of which contains 250 miles, to the most noble and vast city of *Quisay*, which is 100 miles in compass, that is 35 leagues ; in it there are ten marble bridges. the name signifies a heavenly city ; of which, wonderful things are reported, as to the ingenuity of the people, the buildings and the revenues. This space abovementioned is almost the third part of the globe. This city is in the province of Mango, bordering on that of Cathay, where the King for the most part resides.

O From

From the island *Antilla*, which you call the seven cities, and of which you have some knowledge, to the most noble island of *Cipango* are ten spaces, which make 2500 miles, or 225 leagues; which island abounds in gold, pearls and precious stones; and you must understand, they cover their temples and palaces with plates of pure gold. So that for want of knowing the way, all these things are hidden and concealed, and yet may be gone to with safety.

Much more might be said, but having told you what is most material, and you being wise and judicious, I am satisfied there is nothing of it, but what you understand, and therefore I will not be more prolix. Thus much may serve to satisfy your curiosity, it being as much as the shortness of time and my business would permit me to say. So I remain most ready to satisfy and serve his highness to the utmost in all the commands he shall lay upon me.

*Florence, June 25, 1474.*

LETTER

## LETTER II.

To CHRISTOPHER COLUMBUS, PAUL *the Physician wisheth health.*

I RECEIVED your letters with the things you sent me, which I take as a great favour, and commend your noble and ardent desire of sailing from east to west, as it is marked out in the chart I sent you, which would demonstrate itself better in the form of a globe.

I am glad it is well understood, and that the voyage laid down is not only possible, but true, certain, honourable, very advantageous and most glorious among all Christians. You cannot be perfect in the knowledge of it, but by experience and practice, as I have had in great measure, and by the solid and true information of worthy and wise men, who are come from those parts to this court of Rome; and from merchants who have traded long in those parts, and are persons of good reputation. So that when the said voyage is performed, it will be to powerful kingdoms, and to the most noble cities and provinces; rich and abounding in all things we stand in need of, particularly in all sorts of spice in great quantities, and store of jewels. This

This will moreover be grateful to those kings and princes, who are very desirous to converse and trade with Christians of these our countries ; whether it be for some of them to become Christians, or else to have communication with the wise and ingenious men of these parts, as well in point of religion, as in all sciences, because of the extraordinary account they have of the kingdoms and government of these parts. For which reasons, and many more that might be alleged, I do not at all admire, that you who have a great heart, and all the Portuguese nation which has ever had notable men in all undertakings, be eagerly bent upon performing this voyage.



## APPENDIX.

## A P P E N D I X.

## No. II.

*A Chronological detail of Discoveries made in the  
fifteenth Century, connected with Events in the  
Life of COLUMBUS.*

A.D. 1411. JOHN I, King  
of Portugal.

1412. Sends vessels along  
the western shore of  
Africa to discover un-  
known countries.

15. Henry, fourth son of  
King John I, conducts  
the Portuguese dis-  
coveries, which are  
pushed as far as Cape  
Bojador, lat.  $26^{\circ}$  N.

*Robertson.*

18. The island of Porto  
Santo discovered.

20. The island of Ma-  
deira discovered.

31. The islands of St.  
Mary, the first of the  
Azores discovered.

43. Cape Arguin on the  
African coast, lat.  $20^{\circ}$   
N. discovered.

44. St. Michael, the sec-  
ond of the Azores,  
discovered.

1445. A

1445. A *third* island of the Azores discovered, which from that circumstance is called Terceira. *Forster*. Papal Bull conferring the newly discovered countries on the Portuguese.

46. Companies of private merchants in Portugal undertake discoveries, and push them as far as Cape de Verd, on the coast of Africa, lat.  $14^{\circ}$  N.

*Robertson*.

49. The islands of Cape de Verd discovered; and before this year four other islands of the Azores are known, viz. St. George, Graciosa, Fayal and Pico.

*Forster*.

63. Prince Henry dies, and the passion for discovery languishes.

(*Uncertain date*.) Alphonso V. King of Portugal grants an exclu-

1447. Christopher Columbus born at Genoa.

61. Takes to sea at the age of fourteen.

five right of discovery to Gomez, and gives the island of Fayal to his sister Isabella, Dutchess of Burgundy and Flanders.

*Rob. Forster.*

1466. Isabella sends Jobst Von Hurter to Fayal with a colony of Flemings.

*Forster.*

67. Philip *the good*, Duke of Burgundy & Flanders, and husband to Isabella, dies at Bruges, *Æt.* 73 : Is succeeded by his son Charles *the bold*, *Æt.*

34. *Collier. Mezeray.*

71. The Portuguese discover Guinea, particularly the gold coast, and first cross the equator. *Forster.*

1467. C O L U M B U S

sails 100 leagues beyond Iceland, within the polar circle, as far as lat.  $73^{\circ}$  N. Follows the sea 23 years, in which time he visits all the discoveries made by the Portuguese in Africa and the islands ; during this time he settles and marries at Lisbon.

74. Columbus corresponds with Paul, of Florence, on the probability of finding India in the west.

{ *Life of Col. by*  
*Ferdinand Col.*

1481. John II, King of Portugal, revives the spirit of discovery, and builds a fort on the coast of Guinea, called *St. George de la Mina*, lat.  $5^{\circ}$  N.

*Forster.*

83. Sends Diego Cam and Martin Behaim, to make new discoveries on the coast of Africa.

84. They make two voyages in 26 months, and discover Congo and Benin.

85. Feb. 18. Behaim is knighted by King John II. He afterward marries the daughter of Hurter, and thus becomes a proprietor and Lord of the island of Fayal. *Schedl. Forster.*

(*Uncertain*) Columbus proposes his plan of a western voyage to the republic of Genoa, without success. *Herrera.*

Then to John II, of Portugal; who, by the advice of Calzadilla, privately sends a vessel to make discoveries in the west, which comes back to Cape de Verd, without success.

1484. In the latter end of this year Columbus leaves Lisbon, and goes into Spain, having previously sent his brother Bartholomew to England. *Ferd. Col.*

88. Bartholomew having been taken and detained several years by pirates, gets to England, employs himself in making

1486. Cape of Good Hope  
discovered by Barthol-  
omew Diaz. *Rob.*

making maps and  
globes, and presents  
one to Henry VII.  
*Mod. Univ. Hist.*

1491. Columbus having  
made application to  
Ferdinand, King of  
Castile, and been re-  
pulsed, resolves to  
follow his brother  
to England, but is  
recalled by Queen  
Isabella. Ferdinand  
being still inflexi-  
ble, Columbus dis-  
gusted resolves to  
go to France.

92. Martin Behaim vis-  
its Nuremberg, his na-  
tive city, where he  
makes a globe, on  
which are delineated  
coasts and islands,  
which, from their sit-  
uation, are *supposed* to  
be some parts of A-  
merica.

{ *Robertson's Ame-*  
rica, vol. I. p. 322.

92. Is again recalled;  
and receives en-  
couragement from  
Isabella.

May 12. Sets out  
from Granada, for  
Palos, whence,

Aug. 3, he sails  
with three vessels.

Aug. 12, arrives  
at the Canaries.

Septem. 6. Sails  
thence to the west-  
ward.

Oct. 12. Discovers Guanahana, one of the Bahama islands, distant 950 leagues from the Canaries.

1493. Pope Alexander VI. draws his line of demarkation between the discoveries of the Portuguese and Spaniards, 100 leagues west of the Azores.

*Hazard's State pap.*

96. John Cabot, a Venetian, in the service of Henry VII. of England, discovers part of America, in lat.  $45^{\circ}$  N. and coasts it northward to  $68^{\circ}$ , and southward to  $38^{\circ}$ .

*Prince's Chron.*

97. Vazquez de Gama doubles the Cape of Good Hope, and arrives at Melinda.

98. Makes his voyage to India, and thus completes the discovery of

1493. Returns to Spain, and arrives at Palos March 15.

Sept. 25. Sails on his second voyage to the West-Indies.

94. His brother Bartholomew meets him in Hispaniola.

96. Columbus returns to Spain from his second voyage.

98. Columbus fails a third time, discovers the island of

that country by the East.

Trinidad, and then the continent.

1499. Ojeda, a private adventurer, and Amerigo Vespucci, follow the track of Columbus, & claim the honour of discovering the continent, which from a publication made by Amerigo, is called AMERICA.

1500. Cabral, bound to India, discovers by accident the continent of America, in lat.  $10^{\circ}$  S. which is called Brazil.

*Rob.*

1500. Columbus is sent prisoner to Spain, by Bovadilla.

02. Makes his fourth voyage to the west, and searches for a

03. passage through the continent to India, is wrecked on Jamaica.

04. Returns to Spain, finds his friend and patroness, Isabella, dead.

06. Martin Behaim dies at Lisbon.

*Otto.*

06. Dies at Valladolid, is buried at Seville, in the Cathedral, *Æt.* 59.

*Ferd. Col.*

THE  
OFFICE OF THE  
SECRETARY OF THE  
NAVY

WASHINGTON, D. C.  
JANUARY 1, 1900

TO THE  
HONORABLE  
MEMBERS OF THE  
NAVY

DEAR SIR:

I have the honor to acknowledge the receipt of your letter of the 29th inst.

and in reply to inform you that the same has been forwarded to the proper authorities for their consideration.

I am, Sir, very respectfully,  
Your obedient servant,

JOHN D. LONG  
Secretary of the Navy

cc. Mr. [Name]  
cc. Mr. [Name]  
cc. Mr. [Name]

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## DISSERTATION III.

ON THE QUESTION, WHETHER THE HONEY BEE IS A NATIVE OF AMERICA.

MR. JEFFERSON, in his notes on Virginia, has said, that "the honey bee is *not* a native of our continent. The Indians concur with us in the tradition that it was brought from Europe, but when, and by whom we know not. The bees have generally extended themselves into the country, a little in advance of the white settlers. The Indians therefore call them the white man's fly; and consider their approach as indicating the approach of the settlement of the whites." He allows that "in Brasil there is a species of honey bee, without a sting, but that it is very different from the one we have, which perfectly resembles that of Europe." The facts adduced by this respectable author are true; but they will not warrant his conclusion that "the honey bee, meaning the one resembling that of Europe, is not a native of our continent."\*

There

\* Page 79, American Edition. 121. English.

There is one circumstance in the history of Columbus, which proves that bees were known in the islands of the West-Indies, at the time of his discovery. When on his first return to Europe he was in danger of perishing at sea, he wrote an account of his discovery on parchment, which he enclosed in a *cake of wax*, and put into a tight cask, committing the whole to the sea, in hope of its being driven on shore or taken up. This wax was procured in the island of Hispaniola\* which he had visited, and it was one of the first fruits of his discovery.

The indefatigable Purchas gives us an account of the revenues of the empire of Mexico, before the arrival of the Spaniards, as described in its annals ; which were pictures drawn on cotton cloth. Among other articles he exhibits the figures of covered pots, with two handles, which are said to be pots of " bees honie."† Of these pots, two hundred are depicted in one tribute-roll, and one hundred in several others.

This account is confirmed by a late history of Mexico, written by the Abbe Clavigero, a native of Vera Cruz, who from a residence of  
thirty

\* See his Life, chap. xxx.

† Purchas, vol. IV.

thirty-six years in Mexico, and a minute inquiry into the natural history and antiquities of his country must be supposed to be well informed, and competent to give a just account. He tells us, that a part of every useful production of nature or art was paid in tribute to the Kings of Mexico ; and among other articles of revenue he reckons “ 600 cups of honey” paid annually by the inhabitants of the southern parts of the empire.\* He also says, “ that though they extracted a great quantity of wax from the honey comb ; they either did not know how, or were not at the pains to make lights of it.”

In his enumeration of the insects of Mexico, he reckons six different kinds of bees which make honey,† four of which have no stings, and of the other two which have stings, one “ agrees with the common bee of Europe, not only in size, shape and colour ; but also in its disposition and manners, and in the qualities of its honey and wax.”

In the account given by Purchas, of the travels of Ferdinando de Soto, in Florida, it is observed, that when he came to Chiaha, which

\* Book VII, p. 351, 4to edit.

† Book I, p. 68.

which by the description was on one of the upper branches of the Mobile, [now in the state of Georgia] he found among the provisions of the natives "a pot full of honie of bees."\* This was A. D. 1540, when there were no Europeans settled on the continent of America, but in Mexico and Peru.

From these authorities it is evident that honey bees were known in Mexico and the islands, before the arrival of the Europeans ; and that they had extended as far northward as Florida, a country so denominated from the numberless flowers, which grow there in wild luxuriance and afford a plenty of food, for this useful tribe of insects. The inference is, that bees were not imported by the Spaniards ; for however fond they might be of honey as an article of food, or of wax to make tapers for common use, or for the illumination of their churches ; yet as bees were known to be in the country, there could be no need of importing them. The report of honey and wax being found in the islands, in Mexico, and in Florida, had reached Europe and had been published there long before any emigrations were made to the northward ; if  
therefore

\* Purchas, vol. V. p. 1539.

therefore if these had been considered as articles of subsistence or of commerce ; the sanguine spirit of the *first* adventurers would have rather led them to think of *finding* them in America, than of transporting bees from Europe to make them.

As to the circumstance of the bees “ extending themselves a little in advance of the white settlers,” it cannot be considered as a conclusive argument in favour of their having been first brought from Europe. It is well known, that where land is cultivated, bees find a greater plenty of food than in the forest. The blossoms of fruit trees, of grasses and grain, particularly clover and buck wheat, afford them a rich and plentiful repast ; and they are seen in vast numbers in our fields and orchards at the season of those blossoms. They therefore delight in the neighbourhood of “ the white settlers,” and are able to increase in numbers, as well as to augment their quantity of stores, by availing themselves of the labour of man. May it not be from this circumstance that the Indians have given them the name of “ the white man’s fly ;” and that they “ consider their approach (or frequent appearance)

Q

appearance) as indicating the approach of the settlement of the whites?"

The first European settlement in Virginia was made about seventy years after the expedition of Soto, in Florida, and the first settlement in New England was ten years posterior to that in Virginia. The large intermediate country was uncultivated for a long time afterward. The southern bees therefore could have no inducement, to extend themselves very far to the northward, for many years after the settlements were begun; and within that time bees were imported from Europe.

That honey and wax were not known to the Indians of New England is evident from this, that they had no words in their language for them. When Mr. ELIOT translated the bible into the Indian language, wherever these terms occurred, he used the English words, though sometimes with an Indian termination.

Josselyn, who visited New England first in 1638, and afterward in 1663, and wrote an account of his voyages with some sketches of natural history in 1673, speaks of the honey bee in these words, "The honey bees are carried

carried over by the English, and thrive there exceedingly."\*

There is a tradition in New England, that the person who first brought a hive of bees into the country was rewarded with a grant of land ; but the person's name, or the place where the land lay, or by whom the grant was made, I have not been able to learn.

It appears then, that the honey bee is a native of America, and that its productions were found by the first European visitors as far northward as Florida and Georgia. It is also true that bees were imported from Europe into New England, and probably into Virginia ; but whether, if this importation had not taken place, the bees of the southern parts would not have extended themselves northerly, or whether those which we now have are not a mixture of native and imported bees, cannot be determined. It is however certain that they have multiplied exceedingly, and that they are frequently found in New England, in a wild state, in the trunks of hollow trees, as far northward as cultivation and settlements have extended, which is nearly to the forty-fifth degree of latitude.

I have

\* Voyage to New England, p. 120.

I have made inquiry of several persons from Canada ; but have not learned that bees were known during their residence in that country. It is however not improbable that as cultivation extends, the bees may find their way to the northward of the lakes and river of Canada, even though none should be transported thither by the inhabitants.



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## DISSERTATION IV.

ON THE COLOUR OF THE NATIVE AMERICANS, AND THE RECENT POPULATION OF THIS CONTINENT.

IT has been queried, “if the blackness of the Africans and the East Indians within the torrid zone, be the effect of climate; why are not the original natives of America, within the same latitudes equally black?”\*

That the blackness mentioned is the effect of climate is generally admitted by philosophical writers. Their meaning is, that the excessive heat of the climate, in a long series of time, produces this effect. The heat of a country depends not only on its proximity to the equator; but on its particular and relative situation. A plain is hotter than a mountain, a continent is hotter than an island, and one side of a continent is hotter than the other. Though almost all the countries and islands of Asia and Africa, between the tropics, have black inhabitants; yet there is a diversity in  
the

\* American Museum, 1790—p. 78.

the shades of their sable hue, as well as in the form of their hair. The crisped woolly headed inhabitants of the western coast of Africa, are said to be the blackest of mankind, because that country, from its peculiar situation, receives and retains a greater degree of heat than any other part of the globe ; the easterly winds which pass over that continent being extremely heated in their passage. The same wind (which at sea is called the trade wind) is cooled in passing over the Atlantic. The eastern parts of South America are much cooler than the opposite coast of Africa, in the same latitude ; and the natives of Guiana and Brasil are of a brown colour. Between Brasil and Peru are situate those lofty mountains, the Andes ; which again arrest and cool the easterly wind, before it reaches the western coast of America ; and, the inhabitants of Peru are of a lighter colour than those of Brasil. Mexico is in the same latitude with Senegal and Gambia ; the inhabitants of the two latter countries are black, whilst those of the former are of an olive complexion, which is supposed to have been the original colour of the human species.

This

This account is conformable to that given by the celebrated naturalist, Buffon ; but he has also formed an opinion, which, if it were admitted, might solve the question in another way. He conjectures that America is “ of a much more recent existence ” than the old continent ; that it must have remained buried under the waters of the sea much longer ; and has but lately emerged from the waves. In illustration of this conjecture he asks, “ if this continent be really as ancient as the other, why did so few men exist on it ? Why were those few savage and dispersed ? Why did the inhabitants of Mexico and Peru, (the only ones which had the smallest degree of society) reckon only two or three hundred years from the time that they were first assembled together ? ” He might have gone on with his queries thus—Why are not the inhabitants of the torrid zone in America, of as dark a complexion as those of the Asian islands, and the eastern side of the African continent ? For it is well known, that *length of time* as well as *heat of climate*, is necessary to produce any great and permanent change in the human colour.

This

This conjecture of the late emerſion of the American continent from the waters of the ocean, advanced by Buffon, De Paw, and other European theorists, appears to me attended with an inſuperable difficulty. For whilſt buried in the water it muſt either have been ſunk below, or the water muſt have been raiſed above the preſent level of the continent. On the former ſuppoſition, there muſt have been ſome mighty convulſion of nature, and of very long continuance ; to raiſe ſo immense a bulk from the bottom of the ocean to its preſent elevation ; and the water which covered it muſt have been ſo driven back on all ſides, as to have made great encroachments on the ſhores of the other continent and iſlands of the globe. Or, on the latter ſuppoſition, that the water was raiſed above the preſent level of America, it would have been impoſſible, for that element to preſerve its equilibrium, according to the laws of hydroſtatics, without at the ſame time overwhelming the ancient continent. This difficulty renders the conjecture inadmiſſible, without ſome hiſtorical proof of the exiſtence of theſe effects.

But,

But, though the antiquity of America be allowed equal to the rest of the world, yet it is possible that its *population* may be more recent. It is very certain that the annals of Mexico and Peru extended back but a few centuries previous to the Spanish invasion. If we are to believe them, Manco Capac, the founder of the Peruvian monarchy, was contemporary with Henry II. of England, in the twelfth century ; and the Mexican empire was established in the fourteenth. The most elaborate investigation of the late historian Clavigero, carries the *first* population of Mexico by the Toltecas, no further back than the seventh century of the Christian Æra. Beyond that, they had no tradition, excepting that their ancestors came from the north west.

If any analogy can be drawn from the progress which the ancient Assyrians and Egyptians made from a rude to a civilized state ; that is, to the same degree of improvement which the Mexicans and Peruvians had attained ; there could not have intervened more than four or five centuries, from their first arrival in America, to the appearance of Manco. This calculation will bring the time of

the population of America, five or six centuries within the Christian Æra.

Since modern voyagers have discovered the Pacific Ocean to be full of islands, and those islands full of people, many of whom are well skilled in navigation, the population of the western parts of America, from the eastern shores and islands of Asia is rendered more credible than ever ; and if the Mexicans and Peruvians came originally from the north of China or Corea, they might probably bring some degree of refinement with them, beyond what those had who found their way hither from the more northern deserts of Tartary. If this could be ascertained, it would greatly strengthen the argument for the recent population of America, and help us to account for the difference between the inhabitants of those celebrated empires, and the wild wanderers in the northern regions of this vast continent ; which is very analagous to the difference between the people of China, and the roving Tartars in the northern forests of Asia.

In such an inquiry, where so little light can be derived from history or tradition, the  
mind

mind is apt to rest, perhaps too much on circumstantial proofs which seem to favour an hypothesis. Let this be my apology, if any be necessary, for introducing the following quotation from the learned Dr. Forster.

“From the year 1259 to 1294 of the Christian Æra, reigned KUBLAI-KHAN, [Sovereign of Tartary, whose residence was in Kathay, the northern part of China, and whose capital was a part of the present city of Peking.] He sent a fleet and army to Nippon, or Japan for the purpose of conquering that country. The ships composing his fleet were very much shattered by storms, and it is probable that some of them were not able to get back to Japan or China. About this period there sprung up in America almost at one and the same time, two great empires, Mexico and Peru, which had regular institutes of religion; notions of rank and subordinations, were in some measure civilized; were connected with each other by various kinds of association; practised agriculture; and in the matrimonial state did not allow polygamy. In Mexico, they had even a kind of hieroglyphic writing, together with many other marks of cultivation;

cultivation ; notwithstanding that both these empires are surrounded on all sides by savage and rude nations, very inconsiderable in point of extent, and are besides at a distance from each other. All this favours the supposition, that these two colonies came thither by sea, in the twelfth and thirteenth centuries ; perhaps they are some of the people who were lost in the expedition to Japan, their ships having been driven by the storm to America." \*

\* Forster's History of Voyages and Discoveries, chap. I. p. 43.



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