

featured articles

On October 15, 1992 NACIS members were honored to have Emeritus Professor Arthur Robinson deliver the banquet address at the Twelfth Annual NACIS meeting in St. Paul, Minnesota. Professor Robinson enlightened and entertained us with the following presentation on Martin Behaim, the making of the Behaim Globe (in 1492), and an interpretation of the geographic relationships depicted on that globe.

By now scarcely anyone is unaware that this year is the 500th anniversary of when Christopher Columbus ran into some land that turned out to be a new world to the Europeans. Until he died Columbus thought he had reached Asia, but that monumental misconception should not detract from the fact that his voyages were triumphs of careful planning, seamanship, and dead reckoning navigation. Almost completely unheralded, certainly by the media, is another occurrence in 1492 that is also worthy of a quincentennial celebration, especially by all of us here. In that year a 33 old native of Nürnberg, Martin Behaim, compiled a world map that was transferred to a globe. In human history that ranks as a remarkable occurrence. I believe I am correct in that that was the first ever attempt to compile a general, geographical map of the entire earth. Furthermore, Behaim's globe is the oldest terrestrial globe that still exists. It may be seen in the German National Museum in Nürnberg.

Some two years ago I became more than casually interested in Behaim's 1492 globe. Naturally I began noting anything about 1492, and soon I got hooked. Of course, ninety-nine percent of it concerned the "discovery," or to use the euphemism adopted by the official United States Christopher Columbus Quincentennial Jubilee Commission, the "encounter." It is hard to believe the volume of things that were generated by the opportunists who took advantage of the quincentennial celebration. The number of articles, features, books, atlases, TV specials, documentaries, as well as all the other activities and hoopla, including icons, such as ship models and replicas, coins, medallions, ties, T-shirts, and so on is truly quite remarkable. The creative spirit is alive and well. There is even a *Guinness Book of Records*, 1492, a 190-page book. It devotes all of 40 words to Martin Behaim's globe.

Although Columbus and the quincentenary are not what I am going to talk about, I want to take a few minutes to share with you a few of the countless number of things that came to my attention. Most impressive were the exhortations by the groups that urged that the 500th anniversary should be a period marked by remorse over the subsequent ruthless oppression of America's peoples and civilizations. For example, the governing board of the National Council of Churches resolved that in consideration of the "genocide, slavery, 'ecocide,' and exploitation" the quincentenary should be a time of penitence. Leaders of the American Indian (Native American) movement felt strongly: Russell Means of that group has said that Columbus "makes Hitler look like a juvenile delinquent." The City Council of Berkeley, California, resolved that last Monday should not be celebrated as Columbus Day, but should be Indigenous Peoples Day, for which they were roundly criticized by the chair of the National Coalition of Ethnic Organizations, Inc.

Then there are the nationalistically-based claims that we should abandon the recurring centennial celebrations of 1492 because, really, it wasn't

A Cartographic Quincentenary

Arthur H. Robinson

Arthur H. Robinson is an Emeritus Professor in the Department of Geography, 383 Science Hall, University of Wisconsin- Madison, Madison, Wisconsin 53706 (608) 262-2138

Columbus but someone else who first landed in America. This includes Japanese fishermen some 5,000 years ago, second century Jews fleeing from Roman persecution, a fifth-century Chinese Buddhist priest who is supposed to have spent 40 years in Mexico, a sixth-century Irish monk named Brendan whose alleged journey led directly to the appearance on maps for centuries of a nonexistent St. Brendan's Island, Leif Ericsson around 1000 A.D., a Welsh priest named Medoc in the 12th century, and British fishermen off the coast of Newfoundland about 1480. One ought also include reference to Thor Heyerdahl's expeditions, rune stones, pottery similarities between Japan and Ecuador, and so on. But among all the way out hoopla spawned by the quincentenary I have a favorite.

In the introduction to a long, interesting article in the *New Yorker*, mainly about Hispaniola and President Belaquer's weird, horizontal lighthouse honoring Columbus, the author points out that the quincentennial fever reached its peak in Spain. Among other things he reported that a Spanish sculptor arranged a symbolic marriage between the statue of Columbus that overlooks the harbor of Barcelona, as the groom, and his bride, our very own lady, the Statue of Liberty. Outsize garments were actually prepared for a traveling exhibit, and a symbolic ceremony was even performed on last St. Valentine's Day in, where else, Las Vegas.

Now to the main topic. What I want to do this evening is to tell you about Martin Behaim and his 15th-century conception of the earth, described his globe, explain how it was made, what it cost, and why the map showed the relation between Europe and the Orient the way it did. Some of the significant antecedent factors date from classical times. Although it is unlikely that Columbus ever saw or even heard of Behaim's globe, the world according to Martin Behaim is probably essentially the same as Columbus' conception. Thus, the globe map provides a clear, graphic exposition of why he thought he could sail to Japan and China. Incidentally, the record shows that Martin Behaim also proposed to make the same voyage.

First a little background about globes as vehicles for representing the heavens and the earth. There is no question that the earth was known to be a sphere since at least the time of Aristotle in the 4th century B.C. That is not to say that possibly a lot of less educated folk might have thought it possible to fall off the edge of a flat earth. Some, but probably not many, are still with us. Only some 60 years ago Mr. Glen Voliva, the leader of the Flat Earth Society, lived in Zion, Illinois, just north of Chicago, where he had been mayor for many years. I suspect that the development of man-made satellites has caused some members of the Society to reexamine their faith.

When one looks at the heavens one is clearly looking at the inside of a vast bowl around which the stars and planets move. Since their positions in the celestial dome were of great interest it was natural to represent them on a celestial globe. The oldest extant is the 20-inch diameter globe in the statue of the mythical Atlas who is holding it on his shoulders. It is dated as of about 130 B.C. The earliest reference to a terrestrial globe is to a diagrammatic one of about 150 B.C. made by Crates of Mallos, who was the librarian at Pergamum. Apparently it was an hypothesis of the earth's structure that postulated four symmetrical, habitable regions, only one of which, of course, was known at the time. Strabo, writing at about the time of Christ, describes the surface of a globe as being the best way to map the inhabited earth. Since at that time no one knew anything about the other three-fourths, it is understandable why there are many references to celestial globes, but only a few to terrestrial.

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In the Christian Middle Ages there seems to have been little interest in terrestrial globes. This may have been partly because the early Church Fathers did not look kindly on pagan ideas, and partly because of the Biblical statement by Isaiah: "It is He that sitteth on the circle of the earth." That circle was conceived to be a flat disk around which the Ocean Sea circulated. Clearly, a terrestrial globe would not be of much use. However, belief in spherical earth did not die, and by the end of the Middle Ages it was again generally accepted, except of course, by flat-earth diehards. But, as far as I am aware the 1492 globe of Martin Behaim is the first globe to portray a carefully compiled, general geographical map of the entire earth. Its production thus qualifies as a major event in intellectual history, and it alone deserves to make 1492 a year to celebrate. It is unfortunate that it was upstaged by a lucky mariner who made a mistake.

Martin Behaim was born about 1459. His father was a general merchant in Nürnberg, and the Behaims ranked as one of the city's "good" families. The boy probably had private schooling or a tutor in reading, writing, Latin, logic, and arithmetic. He had commercial training in his father's business, and finished his apprenticeship in 1476. He then went to the Netherlands where he worked with cloth merchants in Mechlin and Antwerp. He frequently visited the Frankfurt Fairs, a major trading scene for the Netherlands' textile industry. In 1484 Behaim went to Portugal.

In Lisbon, Martin Behaim did very well indeed. He became acquainted with the governor of Fayal and Pico, two of the Azores Islands, a group in the Atlantic about 800 miles west of Portugal, discovered by the Portuguese navigator Diego de Seville in 1437. Martin married the governor's daughter in 1486 or 87. Whether because of family influence, or because he had fought against the Moors, or because of an expedition he is alleged to have accompanied, Behaim was knighted by King John. He was also named to the Junta of Mathematics, appointed to formulate rules by which to determine latitude from observation of the sun's altitude. In the spring of 1490 he returned to Nürnberg to assist in the settlement of his mother's estate. This was completed in 1491, and it was after that the matter of the globe was raised.

Georg Holzschuher, a traveler who had been to Egypt and the Holy Land, was interested in geographical discoveries. He was also a member of the Nürnberg City Council. He suggested to the Council that Behaim be commissioned to make a world map to show the recent discoveries of the Portuguese south along the coast of Africa, the map then to be transferred to the surface of a globe, or "Erdapfel" (earth apple). The Council agreed, and the globe was completed in 1492.

Behaim returned to Portugal in 1493. In a curious twist that, in a sense links him with Columbus, the record indicates that Behaim carried a letter to King John from a Dr. Muntzer, a German astronomer. The letter provided evidence that Asia could not be very far west of Portugal, especially from the Azores, and urged the King to finance an expedition to sail there. The letter also stated that Martin Behaim was ready to take charge of the voyage and sail westward whenever the King gave the word. As luck would have it, unknown to Behaim and Dr. Muntzer, Columbus had already returned from his first voyage before the letter was even written.

Little is known of the rest of Behaim's life. He seems to have fallen out of favor with the court of the new King Manuel who had succeeded King John. Apparently Martin Behaim was poor when he died about 1507. It is not known where he was buried.

Before turning to Behaim's geographical map and why it showed the world the way it does, I would first like to describe the physical character

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of the 20-inch sphere on which it lies, how it was made, and how much it cost. We are unusually fortunate in that Georg Holzschuher who suggested the project, also oversaw its execution, and submitted an accounting of the costs which has been preserved. To convert costs in 1492 to comparable dollar values today is speculative at best, but there is a clue. In 1908 a British geographer, E.G. Ravenstein, produced an authoritative study of Martin Behaim and his globe in which he converted the costs into pounds, shillings, and pence. I assume he did that correctly. In addition, he noted that one shilling and sixpence per day in 1492 was about the going rate for graphic artists, writers, map copiers, and so on. Today such an hourly employee would likely be paid about \$9 an hour, which adds to \$72 a day or a little less than \$19,000 a year, not a bounteous sum by any means. I am confident that I am not overestimating.

Martin Behaim first had to compile a world map. This was not an easy task in an era when there was very little to depend on for regions beyond Europe, the Near East, and North Africa. We will look at those compilation problems a bit later. Behaim was paid \$652 for compiling the *mappa mundi*, or world map. A limner, or draftsman, was employed to make a fair drawing of the compiled map. The limner received \$480, so the preparation of the world map cost a little less than \$1,200. Incidentally, that flat, general, geographical map of the whole world, probably the first ever made, hung for a time in the office of the Clerk of the Nürnberg City Council, but has long since disappeared. It would be worth a fortune today.

The manufacture of a hollow sphere was no problem. The Nürnberg workshop of Regiomontanus, the celebrated astronomer, had produced many spheres for celestial globes and the traditions were still alive. A spherical mold was prepared first and then covered by what we would call papier maché to form a strong pasteboard shell. The dried shell was cut at the future equator, removed from the mold, and each half reinforced with an interior wood skeleton. Then, with holes for the axis, the halves were glued together and covered with sections of vellum of calf or lamb skin. The mold cost \$960, the shell \$1,440, and the vellum \$152, for a total of a little over \$2,500. Then came the expensive part, the transfer of Behaim's flat world map to the globe surface.

The artist employed for the transfer was Jorg Glockendon. He may have been a namesake, but probably is the craftsman who also did woodcuts and is better known for his rendering, also in 1492, of the map "Plan of Nürnberg and its Environs" by Erhard Etzlaub who holds a prominent place in the history of cartography. Jorg Glockendon, assisted by his wife, worked on the project for 15 weeks. Jorg received \$6,720 while his wife received \$480. In addition, they received their dinners, with wine, at an additional cost of \$480. If they worked six days a week that works out to a little over \$5 for dinner for two, with wine which is not too bad. A stand, a meridian ring, and a dust cover cost an additional \$692.

The total cost of the manuscript globe was slightly over \$12,000. For those of us old folks who wince at today's prices, I remind you that that sum is in today's fiat dollars. If I had made the conversion 50 years ago, when we could mail a first class letter for three or four cents, the total cost would have been only about \$1,500.

Jorg Glockendon and his wife certainly earned their money. So far as I can tell the globe map was not made the modern way, that is by making the maps as flat, tapered longitudinal sections, called gores, which are then fitted and glued to the ball. Instead, the Glockendons had to transfer all the map information and the additional detail, by eye, to the spherical surface of the ball. Drawing and lettering on a spherical surface is



Behaim Globe

not easy.

Now I would like to show you figures of the globe map taken from Ravenstein's reproduction of the globe map in the form of gores. The land areas are, or were, a brown or buff with some forested areas shown with patches of green. Perennial ice and snow regions are in silver. The seas except for the Red Sea are a dark blue (figure 1). This is Cipangu, or Japan (figure 2). There are 111 miniatures consisting of 48 flags, 48 kings seated within tents or on thrones, and 15 coats of arms (figure 3). Missionaries and travelers are shown. These are the Canary Isles (figure 4). The seas contain fish, seals, sea lions, sea cows, sea horses, sea serpents (figure 5), 11 vessels (figure 6), a merman and a mermaid (figure 7). Animals on the land include elephants, leopards, bears, camels, ostriches, parrots, and serpents. The only fabulous beings are the merman and mermaid. Ravenstein calls this a "commendable forbearance in an age which still rejoiced in mirabilia," such as satyrs and men with dogs' heads. The map is crowded with more than 1,100 place names and numerous legends, some quite long, in black, red, gold, and silver.



Figure 1. The Red Sea as depicted on the Behaim Globe (from the Ravenstein globe gores).

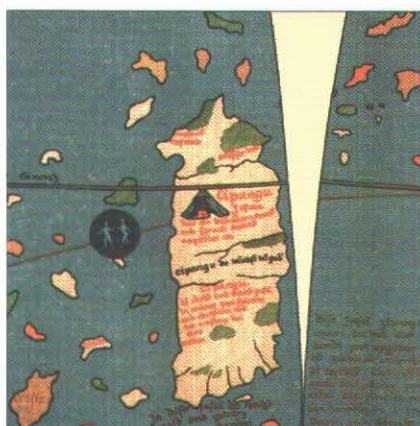


Figure 2. Japan (Cipangu) as depicted on the Behaim Globe (from the Ravenstein globe gores).

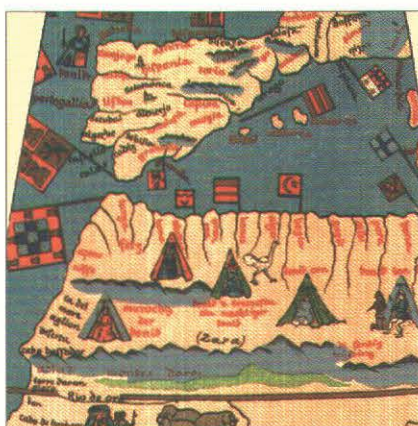


Figure 3. Miniatures of flags, kings, and coats of arms as depicted on the Behaim Globe (from the Ravenstein globe gores).

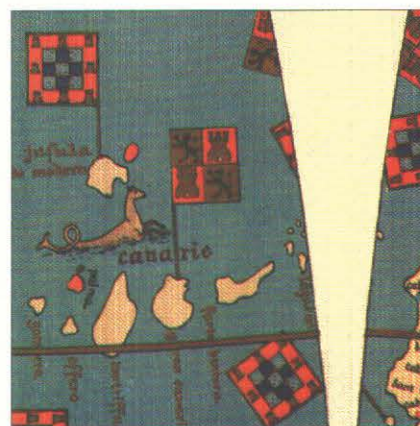


Figure 4. The Canary Islands as depicted on the Behaim Globe (from the Ravenstein globe gores).

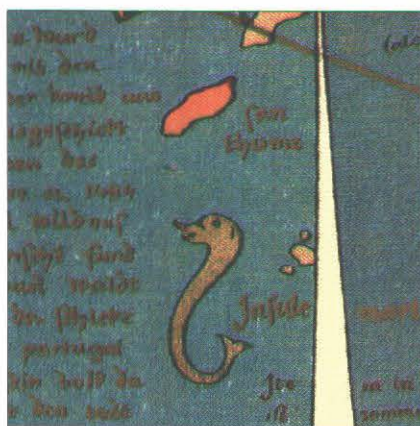


Figure 5. Fish, seals, sea lions, sea cows, sea horses, and sea serpents as depicted on the Behaim Globe (from the Ravenstein globe gores).

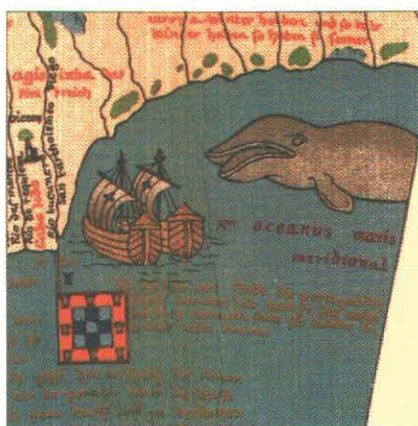


Figure 6. A vessel as depicted on the Behaim Globe (from the Ravenstein globe gores).

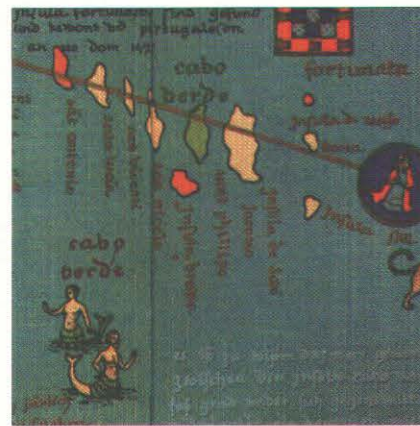


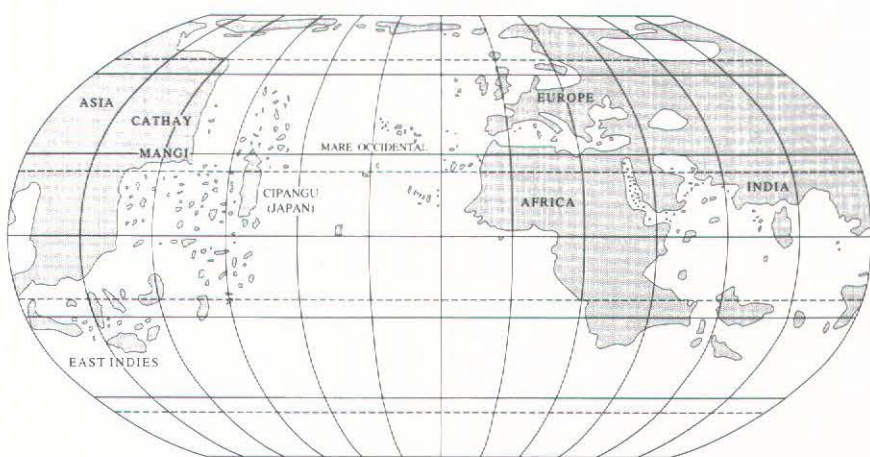
Figure 7. Merman and mermaid as depicted on the Behaim Globe (from the Ravenstein globe gores).

In 1510 the original iron meridian was replaced by one of brass, and the wooden stand by a tripod of iron. The globe map has been repaired twice. The original brilliant colors had darkened or faded, parts of the surface had been rubbed off, and names had become illegible or disappeared. The first renovation was in 1523, and at that time the globe was judged to be fragile. A second renovation was undertaken in 1847. Ravenstein points out that the renovators were turned loose without any guidance and did "irreparable mischief." Numerous place names were corrupted beyond recognition. Although the globe is not the equivalent of George Washington's ax that has had three new heads and six new handles, it is fair to say that it has some characteristics of a palimpsest.

Several spherical facsimiles of the globe have been made, the first in 1847 for the Bibliothèque Nationale. In 1892, on the globe's 400th anniversary, a copy of that facsimile was made and exhibited at Chicago. Subsequently it was moved to the National Museum in Washington. Last summer it was in the Division of Naval History and History of the Armed Forces of the Smithsonian Museum. Its next home is to be the Smithsonian's Dibner Rare Book Library. The Ravenstein gores were mounted on a shell and exhibited in the American Geographical Society. More recently the National Geographic Society reproduced Ravenstein's gores and mounted them on a globe.

There have been at least a dozen flat representations of the Behaim map, all but one in the form of paired hemispheres on globular projections. This map is my conversion of the globe gores to a single, world map projection (figure 8). The unavoidable distortion is mostly in the very high latitudes which, in any case, were largely a complete mystery in 1492. Clearly Asia has been shifted far to the east locating Japan about where Cuba is. The fundamental question to which I next want to turn is: How could Behaim and some others, including Columbus, make such a colossal error?

It is difficult to identify the origin of geographical conceptions that were given substance by portrayal on maps or that led to innovative travel, especially in the distant past. An example of how elusive certainty can be is provided by the study of Christopher Columbus. Probably no secular mind has ever been so thoroughly probed at long



Martin Behaim, 1492

Figure 8. Representation of the area covered on Behaim's map drawn on a Robinson projection.

distance. Only a few of the books he owned have survived, and four of these have over 2,000 annotations in his own hand. From this material a rather sketchy notion of the development of his ideas emerges, but the conclusions of the hundreds of scholars who have quarried this material are abundantly larded with unverifiable surmises and inferences.

As to Martin Behaim we are much less fortunate. We must depend on his travels, and especially on what is known to have been the prevailing geographical ideas of the latter part of the 15th century. As to those generally accepted conceptions we are, to use an appropriate metaphor,

on firmer ground. The relative position of Asia, Japan and Europe on Behaim's map, and in Columbus' mind, is the result of logical reasoning from cosmographical matters that were of considerable concern in the 1490's. One had to do with the possible location and extent of the habitable, dry-land part or parts of the earth that were surrounded by the waters of the Ocean Sea. The other was simply the question of how large was the earth. These two interrelated topics had been matters of study and conjecture since Classical times. I will summarize the background that led to the conceptions accepted by both Behaim and Columbus. In spite of the fact that it is not known that they ever met, apparently they thought very much alike on these matters.

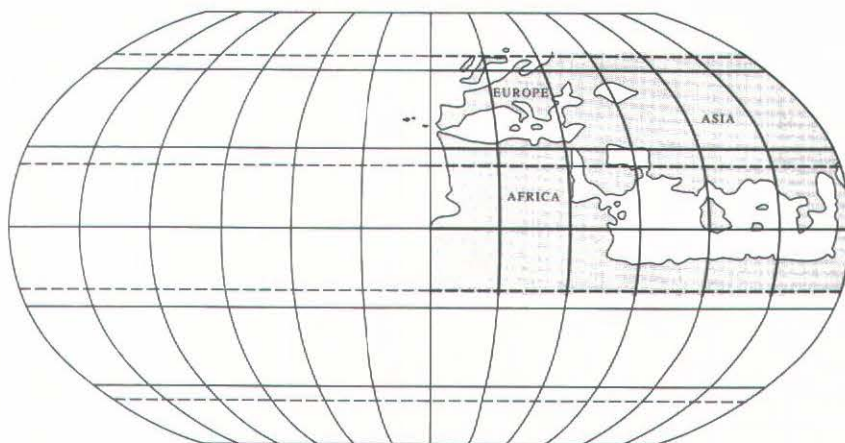
First let us consider some of the ideas about the extent of the habitable earth. As long ago as the 4th century B.C. an "island of great extent," (Plato called it Atlantis) was thought to be in the Ocean Sea beyond Europe. That notion may have arisen because Phoenician seafarers might have ventured even beyond the Azores. Aristotle wrote of the calm, seaweed-rich region in the Western Ocean that we now recognize as the Sargasso Sea. Strabo, in his *Geography* describes Crates' globe as showing a region beyond the ocean opposite the Mediterranean that was inhabited by the Antipodeans. The possible existence of such an inhabited region off to the west of Europe persisted into the 15th century even though it was difficult to reconcile it with the Biblical assertions that all peoples were descended from Adam and Eve and that the Apostles had preached throughout the world.

A persistent legend in Spain and Portugal told of the flight of seven Bishops in the 8th century to escape from the conquering Moors. They went far to the west, beyond the Azores, and established the Island of the Seven Cities that came to be known as Antillia, which in Latin simply means "opposite island." Antillia was shown on more than a dozen pre-1492 charts, and Behaim shows it and tells of it in one of the legends on his globe. It survives today in the name Antilles for the cluster of islands fringing the Caribbean. On Behaim's globe the legendary St. Brendan's Isle is portrayed as larger and even farther west from Europe than Antillia. St. Brendan's Isle was shown in various locations, always escaping visitation, on maps and charts from 1275 to 1620. It was generally agreed that there were islands out in the Atlantic beyond the Azores, but the fascinating question was: what lay beyond? To seek the answer to that Behaim, Columbus, and others had to turn their attention to the east of Europe instead of to the west. Their primary source were the writings of Claudius Ptolemy, a Greek scholar who lived in Alexandria in the 2nd century A.D. Among other things he wrote an influential treatise on geography and cartography. Although the works of Ptolemy remained known to Arab astronomers and geographers from the 2nd century on, his book the *Geography* began its dominance over European geography and cartography only in the early 1400s when it was translated from the Greek into Latin. It was first printed with maps in 1477, and by 1490 six editions had been produced. Since each edition probably numbered at least 500 copies the Ptolemaic ideas and maps became widely distributed. The only generally available map of the known world was the one that accompanied the manuscript and printed editions of the *Geography* but that so-called "world map" portrayed only half the northern hemisphere (figure 9, page 10). None of the rest of the world was shown. Africa had been barely rounded in 1487, so there was plenty of terrestrial space to be filled in by creative analytical and wishful thinking.

The land area on the Ptolemaic world map was simply cut off at its eastern edge, the clear implication being that land extended even farther

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Claudius Ptolemy
Florence ed. 1478

Figure 9. Representation of the area covered on the "world" map in Ptolemy's *Geography* drawn on a Robinson Projection.

to the east. The missions of Friar Carpini and others to the Great Khan at Karakorum in the mid-13th century had quickened interest, but it was the written account of Marco Polo's journey in the late 13th century that captured the most attention. It first appeared in 1298, was frequently copied, and was among the most widely read books. Soon after the development of printing in the mid-1400s it became very popular.

The accounts of overland journeys on foot or by pack train probably tend to exaggerate the distances traveled. Also, unlike north-south locations, east-west positions could not be determined from observations of the sun or stars. Consequently, map makers could only plot east-west locations

by calculating longitudes from the travelers' accounts. To do this they simply divided the reported distance between two places by the length of a degree of longitude at that latitude to find the number of degrees between the places. Clearly, the length of a degree is important, and to see what effect this had we need to turn to the second of the cosmographical matters that are important in this context, namely the size of the earth.

The first serious attempt to determine the circumference of the earth was by the Greek Eratosthenes in the 3rd century B.C. His calculation was based on straightforward geometry and he arrived at a figure of 250,000 stades, or about 695 stades to the terrestrial degree. Unfortunately, we do not know for certain the length of the stade Eratosthenes used, but his circumference was clearly fairly close to the true value. The various observations and assumptions he made were all somewhat incorrect, but fortunately they tended to cancel.

History might have been considerably different if Eratosthenes' good result had been permitted to stand, but a century or so later another Greek philosopher, Posidonius, possibly recognizing Eratosthenes' errors, replicated the procedure using different observations and assumptions, but his errors did not cancel, and he arrived at a much too-small circumference of 180,000 stades, or 500 stades to the terrestrial degree. Assuming a reasonable length for the stade that value is at least 20% too small, and Ptolemy's authoritative *Geography* flatly stated that there were 500 stades to the degree.

Support for a too-small earth came from another source. Seven hundred years after Ptolemy the Arabs undertook a third measurement of the length of a terrestrial degree. It was carried out by astronomers on the Plain of Sinjar in what is now northwest Iraq. The degree was found to be about $56 \frac{2}{3}$ Arab miles. Since that Arab mile was a little less than 2,000 meters the result was within about 2% of the true figure. The value of $56 \frac{2}{3}$ miles to the degree was reported by Al-Farghani in his influential work *Compendium of the Science of the Stars and Celestial Motions*. The book was translated into Latin and Hebrew in the Middle Ages and circulated widely in Europe. Columbus, and no doubt others, seized upon the value of $56 \frac{2}{3}$ miles to the degree, but wrongly applied it to the Italian nautical

mile not realizing that the Italian nautical mile was about 25% shorter than the Arab mile. Thus in 1492 all the evidence pointed to a much too-small earth.

That too-small earth had a profound effect on the world map. A too-long estimate of distance traveled from Europe to the Far East divided by a too-short degree of longitude resulted in too many degrees of longitude. Since there are only 360 degrees around the earth the excessive number of degrees assigned to the distance between Europe and the Orient pushed the fabled lands of China and Japan far to the east and thus fairly close to Europe. Actually, on Behaim's map the distance from the Azores to Japan is shown as a bit less than the length of the Mediterranean Sea. Sailors had traversed the Mediterranean for millennia.

This conception of the geographical relation between the Orient and Europe was not original with Behaim or Columbus. It had been suggested as early as 1410 by Cardinal Pierre d'Ailly of France in his book *Imago Mundi* (Image of the Earth) which was printed in the 1480s, as well as by a communication to the Portuguese king by the Florentine cosmographer Toscanelli in 1474. There is a large, very faded, manuscript map dated around 1490 by a Henricus Martellus who was working in Florence, and who like Behaim, was native of Nürnberg (figure 10). It is now in the Beinecke Library of Yale University. I transferred its coastlines to the same base as I did for Behaim (figure 11). It is the only other 15th century, non-Ptolemaic world map that shows longitudes, and although it does not quite show the entire earth, the relative positions of the Orient and Europe are about the same as on Behaim's map. So far there has been no convincing evidence of any connection between Behaim and Martellus.

That brings to an end my analysis of why Martin Behaim plotted the relation between Europe and the Orient the way he did. You and I probably would have done the same thing.

Before concluding I would like to try your patience just a few minutes longer and tell you about a suggested possibility. In the Preface to his 1991 scholarly book on Columbus, Felipe Fernandez-Arnesto took pains to dismiss summarily the numerous attempts to deny Colum-

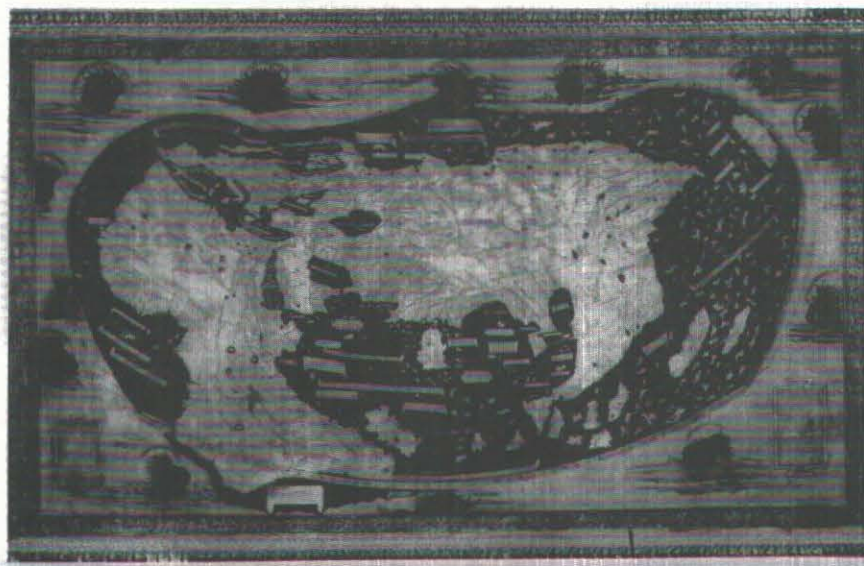
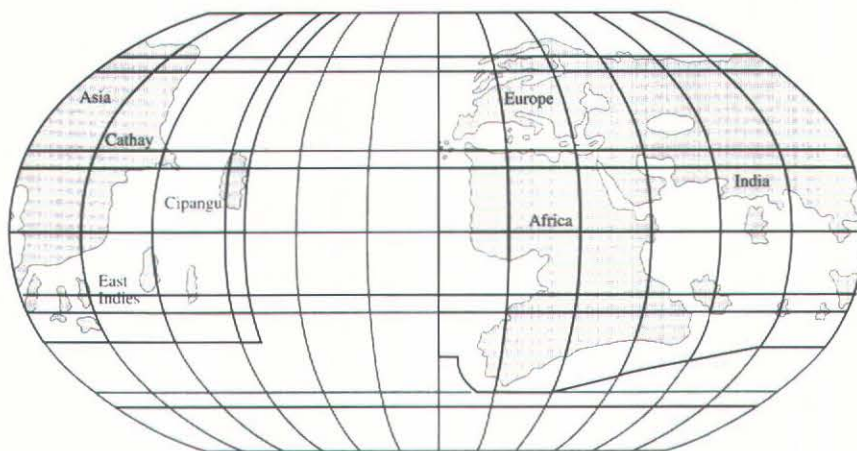


Figure 10. Photograph of Henricus Martellus 1490 manuscript map.



Henricus Martellus 1490?

Figure 11. Representation of area covered on Martellus's map drawn on a Robinson Projection.

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bus his Genoese origin and to make him out to be Greek, English, French, Portuguese, Castilian, Galician, Corsican, Swiss, Catalan, and Ivizan, which is one of the Balearic Islands off Spain. But Fernandez-Arnesto missed one, probably because, being a distinguished historian at Oxford University, he never ran across an article in the magazine *Hobbies* that appeared in its Volume 70 nearly 30 years ago. The title of the article is "Was Christopher Columbus Really Martin Behaim?"

The author, Paul Schmidtchen, points out that the *Nürnberg Chronicle* claims Behaim to be the discoverer of America, and he makes what can best be described as a plausible case based on a variety of facts, suppositions, and coincidences. For example he observes that their ages match closely, that the young Columbus is generally described as being tall, with a fair complexion, and having blond hair, characteristics more Teutonic than Italian. He suggests that after Columbus' proposal was turned down by King John of Portugal and after his wife died while he was still in Portugal, for some reason Columbus disappeared and his identity was then adopted by Martin Behaim. He points out that the new Behaim-Columbus fell in love with Beatriz Enriquez after going to Cordova. She bore him a son, but Columbus never married her. The author suggests that the real Columbus could have because his wife had died, but that Behaim-Columbus could not because he was still married. And so on.

Such investigative activity five centuries after the events occurred is intriguing, but not likely to lead to any certain conclusions. I am rather sorry that this identity problem did not come to the attention of movie producers, such as the one who made J.F. K., the film about who killed President Kennedy. Perhaps they might have fallen all over one another to have a potential box-office bonanza in this year of the Quincentenary. Maybe then the non-cartographic world would have paid some attention to Martin Behaim and his globe.

The author would like to acknowledge that the photograph of the Behaim Globe on page six was provided courtesy of Rand McNally from transparencies made by the German National Museum.

RESUMEN

El 15 octubre de 1992 los miembros de NACIS fueron honrados con la presencia del Professor Emérito Arthur Robinson, el cual dirigió un discurso en la décimo segunda reunión anual de NACIS en St. Paul, Minnesota. El Profesor Robinson nos ilustró y divirtió con la presentación sobre Martin Behaim, titulada, la edición del Globe de Behaim (en 1492), y una interpretación de la relación geográfica representada en ese globo.