THE FIRST EUROPEAN CHARTING OF FLORIDA AND THE ADJACENT SHORES

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The question of when Florida and the adjacent North American shores were first discovered and charted by European explorers has plagued historians from the sixteenth-century to date. Currently, Juan Ponce de León is generally accorded this honor in his 1513 discovery voyage, although there are claims that earlier illegal and unreported European adventurers may have sighted or touched the shores of Florida prior to 1513.

Documented evidence has indeed shown that well before Ponce de León's 1513 discovery voyage, the unreported islands north of Española and Cuba, the shores of the Yucatan, the Gulf of Mexico, Florida and the lower East Coast of the USA, were explored and charted by both Portuguese and Spanish pilots and explorers. This early discovery of Florida and the adjacent shores is reflected in both historical accounts and early sixteenth-century cartography. But this documented evidence is unclear and has sparked controversy over who was the first recorded explorer to discover Florida. This study examines the several controversial accounts and theories of this first significant discovery and charting to eliminate those with no merit and provides a documented answer by a dialectical analysis of early documents and the related cartography.

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Claims of Voyages of Discovery that Preceded the Reported Voyage of Juan Ponce de León in 1513.

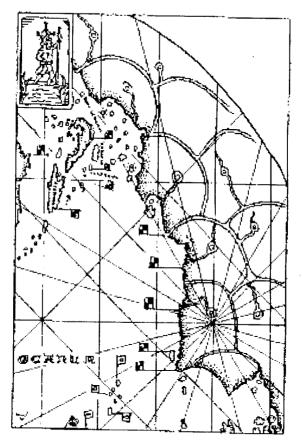
The 1497 voyage of John Cabot is reported to have reached as far south as Florida and the Gulf of Mexico but there is no sound or documented proof to support this theory. Peter Martyr and Richard Hakluyt in the sixteenth-century were the first to report the Cabot discovery theory and David O. True with Martyr and Hakluyt as a source is the latest to support this untenable theory. The theory concerning John Cabot's voyage is based solely on the unfounded and spurious braggadocio of his son Sebastian, and the fact that Juan de La Cosa's Map of the New World (circa 1500) shows the British flag posted in five locations on what could be interpreted (or misinterpreted) as the east coast of Canada and the United States (Figure 1).

One cannot leave the Cabot voyages without a discussion of the contemporary Portuguese voyages of the Corte-Real brothers because claims of their alleged discovery of the eastern shores of Canada and the USA continue to surface. Gaspar Corte-Real and his brother Miguel Corte-Real, accompanied by other Portuguese ships and pilots, made a total of four voyages (1500-1504) to the area of Newfoundland during which the two brothers were lost at sea.² There is no valid historical foundation for the theory that the Corte-Real brothers reached the eastern seaboard and Florida.

The Cabot 1497 voyage and perhaps the voyages of the Corte-Real brothers are reflected in the Juan de La Cosa map which some historians see as the first depiction of the East Coast of the USA (Figure 1). The illuminated La Cosa map on ox hide, now in the Museo Naval, Madrid, is believed to be a later updated copy of the original map made in Cadiz in 1500. The La Cosa map is attributed to the well known Basque pilot by that name who accompanied Columbus on his first and second voyages, followed by three expeditions along the coast of South America with

Figure 1

Redrawn detail from Juan de La Cosa's map of the New World showing Spanish English, and Portuguese discoveries. Original is in the Museo Naval, Madrid.



Hojeda (Ojeda) where he was killed in a skirmish with the Indians in 1509.

The shorelines and islands that extend from Cuba and the Bahamas south on the La Cosa map correlate to the voyages of Columbus, Hojeda and Juan de La Cosa, and the northern shorelines can be related to the voyages of Cabot and the Corte-Real broth-

ers. The cartographer joined these two widely separated and known lands with a conjectured shoreline of Asia, which interestingly enough conforms to the general south-westerly trend of Canada and the East Coast of the USA. It is this coincidental configuration that has spurred unfounded speculation that the Cabot, Corte-Real, Vespucci, or other voyages are reflected in this portion of the La Cosa map, but there is no substantive proof for these theories. It should be noted that while the Spanish discoveries in the south and the English and Portuguese discoveries in the extreme north are liberally supplied with geographical place names, such as would be used by a pilot, the speculative coastline between the two is devoid of place names.

One of the most widely accepted claims to the first discovery of Florida is that by Amerigo Vespucci. Amerigo Vespucci inferred he discovered the mainland as far north as the Gulf of Mexico, Florida, and the Chesapeake Bay in a 1497 patently fictitious voyage for which there is no archival record. Vespucci sailed on the voyage of Alonso de Hojeda to the Carribean (1499) and on Goncalo Coelho's voyages to Brazil (1501, 1503) as a gentleman volunteer (i.e. a paid passenger). It was the experience at sea in these three voyages that enabled Vespucci to conjure up his earlier fictitious 1497 voyage. Vespucci's published accounts of these voyages, in which he pictured himself as the captain and navigator, received wide distribution throughout Europe which readily earned him an undeserved reputation as one of the leading navigators in Europe.³

In addition to help from his friends in the Spanish court, Vespucci's reputation was given a major boost by Martin Waldseemüller with publication of his 1507 World Map. None of WaldseemIler's work was original, as Asia and the Mediterranean were borrowed from Ptolemy, and the New World shores closely followed the Portuguese/Genoese Cantino and Caveri (Caverio) maps. WaldseemIler's map briefly gave a false legitimacy to

Vespucci's claim that he sailed to the area of Florida by showing him on an inset containing a reduced drawing of the shoreline which includeed Florida, but there is no valid evidence that Vespucci made any contribution to the geographical shorelines shown on the map.

With the voyages of Cabot, the Corte-Real brothers, and the (alleged) voyage of Vespucci eliminated from consideration, the Cantino and Caveri maps are in line to be examined for evidence of the first discovery and charting of Florida, and the adjacent shores by European explorers.

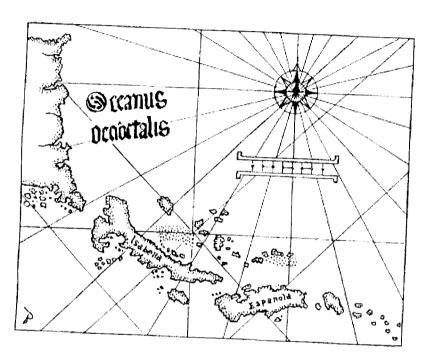
The Portuguese Discovery and Charting of Florida, the Gulf of Mexico, and the Southeastern Seaboard of the USA.

The Alberto Cantino World Map and the Nicolo Caveri World Map are the earliest extant maps (circa 1502-05) to record what appears to be the shorelines of Florida, the Gulf of Mexico, and the lower East Coast of the USA. The Cantino map (ca. 1502) reportedly smuggled out of Portugal by Alberto Cantino for the Duke of Ferrera, Ercole d'Este, was ostensibly a copy of the Portuguese Official World Map (Padrão) maintained by the crown and containing all known (including secret) geographical knowledge to that date. The Cantini map was probably made for the Portuguese crown by the Genoese cartographers in Lisbon who had close ties to their compatriots in Genoa. The map was delivered to the Duke of Ferrera, not necessarily with the approval of the crown, but the commonly used term that it was "smuggled" hardly seems appropriate.

The Caveri map was made and published by Nicolo Caveri (Caverio), a Genoese cartographer with demonstrated close ties to the Genoese colony in Lisbon which was responsible for Portuguese cartography and chart making. It was this Genoese colony in Lisbon that spawned the cartographical works on the new discoveries that was to provide the prototypes and have such a pro-

Figure 2

A scaled copy of the Cantino map (ca. 1502) showing the land resembling Florida and the eastern seaboard. The identical land mass was also shown on the Genoese Caveri map (ca. 1504) and on maps by Martin Waldseemüller (ca. 1507).



found influence on later cartography issued from northern Europe such as the Waldseemüller maps. The Caveri map is the oldest map available which presents a clear depiction of what can be interpreted as the Gulf of Mexico and the Yucatan as well as Florida and the East Coast of the USA, which was copied and refined in later European maps. The western extremity of the Cantino map does not show the Gulf of Mexico and the Yucatan (as shown on the contemporary Caveri map) because the mutilated edges of the map were trimmed in the nineteenth-century. Thus,

for the purpose of discussion of the source of these geographical features, the Portuguese Cantino and the Genoese Caveri map may be considered as one.

A careful examination of the nearly identical configuration of the Cantino and the Caveri maps, indicates they were derived from a common source. And this common source was patently the Portuguese "Official" Padrão which was produced for the crown by the cosmographers, pilots, and cartographers in the large and influential Genoese colony in Lisbon. This Genoese colony was established by King Denis (ca. 1317) to oversee and administer Portuguese naval and navigational matters for the crown. This policy, which provided Genoese control of Portuguese cartography, was carried forward through the Infante Dom Henrique (Prince Henry the Navigator) to and beyond the Columbian era.4 The Portuguese crown's World Map would have contained the geographical shorelines and place names derived from the smaller portolan charts of all Portuguese voyages of the pe-An example of this procedure is that the geographical shorelines and place names from the Portuguese voyages of Goncalo Coelho (1501-02) and Fernando de Noronha (1503-04) are shown on the Genoese Caveri map although the portolan charts of the voyages did not survive.

Both the Cantino World Map of Portuguese origin, and the Caveri World Map of Genoese origin (but clearly derived from Portuguese sources) show a large land mass northwest of Cuba which closely resembles the East Coast of the USA from about Cape Hatteras to the southern tip of Florida. Historians are nearly evenly divided on whether the land mass northwest of Cuba on these maps depicts Florida or some other land. As indicated earlier, most of those who endorse Florida for the land mass do so because of their acceptance of the Vespucci theory. Those who endorse the Florida depiction on the map, but cannot accept the Vespucci theory, largely voice the noncommital comment of,

"discovery by some unknown pilot." Without solid documentary evidence of a discovery voyage during the period, historians have been reluctant to call this land mass the East Coast of the USA, Florida, and the Gulf of Mexico. This has produced tortured and contrived attempts to picture it as a speculative coastline supplied by the cartographer and representing everything from a hypothetical depiction of Asia, to a duplicate depiction of the north coast of Cuba, and even the unlikely theory that it is the north shore of the Yucatan.

The most important and best documented of these several theories is that by George E. Nunn in his study of Columbus's Geographical conceptions, published in 1924. Nunn, in his comprehensive study presents a detailed argument to support his conclusion concerning the land mass shown on the Cantino/Caveri map. Nunn's theory is summarized as: "In conclusion, the present writer is convinced that the continental land northwest of Isabella was not Florida. This land was drawn under the misapprehension that it was the mainland of Asia." 5

The Portuguese and their Genoese cartographers were worldly, well informed, seafaring savvy, cosmographers, who recorded and gave place names to geographical shorelines and landmarks only after they were reported by a known and competent source. It seems unreasonable for them to go through a long and involved mental exercise to picture the shores of Asia, based only on Columbus' statements and descriptions, when they had already depicted these Asian shores on the eastern extremity of their maps. Nunn's nebulous theory has largely fallen out of favor with Columbian era scholars. However, currently Robert H. Fuson, without offering any new evidence, falls back on Nunn's theory and asserts the land on the Cantino map northwest of Cuba is "the Mangi Peninsula of China, not Florida."

The theory that the land mass represents a duplicate depiction of the north shore of Cuba has found favor among a number of

scholars, who infer that the cartographers tried to picture Columbus's conception of Cuba as part of the mainland. R. A. Skelton has been the leading supporter of this theory and it is currently championed by Donald L. McGuirk Jr. Skelton blames Columbus for "confusing" the cartographer of the Cantino map by his insistence that Cuba was part of the Asian mainland. To support this view, he cites the 1513 German edition of Ptolemy which contains one of Waldseemüller's maps showing a peninsula, patterned after the Cantino/Caveri map which contains the word "Cuba." This strained reasoning reveals only that the German cartographers (who copied and enhanced Portuguese maps) were the ones who were "confused," and not the knowledgeable Portuguese/Genoese cartographers who had first hand knowledge and showed the shorelines of Florida and the adjacent areas in their correct geographical location and shape.

The theory that the land mass on the Cantino/Caveri map is a depiction of the north shore of the Yucatan was first made popular by Henry Harrisse in 1892. This unlikely theory was revived by Edzer Roukema in 1965. Roukema in a strained analysis purports to show the similarity of the two shorelines, but that geographical similarity does not exist! The arid and smooth shore of the Yucatan is devoid of the numerous inlets and rivers shown on the Cantino/Caveri map, and the prominent island of Cozumel is missing. Yet Clinton Edwards in his recent essay contained in the reprint of Nunn's book, in speaking of Roukema's theory, states: "To my knowledge this has not been disproved categorically." It seems unnecessary to "disprove" something that has not been proved.

The conclusion that the charting shown on the Cantino/Caveri map was by a Portuguese pilot, who visited the area some time before 1500, is based on several valid and cogent facts. The shoreline features adhere very closely to the actual marine geography when the sixteenth-century state of the art of both naviga-

tion and cartography is considered. The pilot was most probably Portuguese (or Genoese in service to the Portuguese Crown) because the shoreline contains Portuguese names such as were used by pilots of this period. There are Portuguese maps in which Spanish toponym for geographical features have been changed to Lusitanian names, but these are confined to known Spanish discoveries, and there is no verified indication of Spanish exploration and charting of this area in the period. It is true that the contested land mass contains prominent Spanish flags. But this is understandable, since the land is clearly in the area ceded to Spain by the Pope. And Portuguese monarchs in this period were reluctant to challenge the Pope and lay claim to lands in which they had illegally intruded. Also the chart itself is Portuguese, and the geographical features show no resemblance to any Spanish chart of the period. All this together with the fact that these geographical features were unknown to the early Spanish pilots (Alaminos, Hojedo, Pinzón, Solis, Morales, Alvarez, Ocampo) supports the conclusion that the original and source charting was done by a Portuguese pilot rather than a Spanish pilot.

Samuel Eliot Morison presents a convincing (though much disputed) postulation that the entire east coast of North, Central, and South America was explored by the Portuguese hero Duarte Pacheco Pereira in 1498, which would provide a possible source for the depiction of the disputed land on the maps. Documentary evidence for the discovery and charting by a Portuguese voyage was also contained in a recent article on the subject by Demetrio Charalambous. In his investigation of sixteenth-century documents in the Portuguese Archivo Nacional de Torre de Tombe in Lisbon, Charalambous studied and reported a letter by Mestre Joao, a prominent Portuguese cosmographer written in the year 1500 to the King of Portugal, that speaks of an "aged world map" that showed the shorelines of the New World discovered by Columbus. Mestre Joao was with Cabral off the coast of Brazil

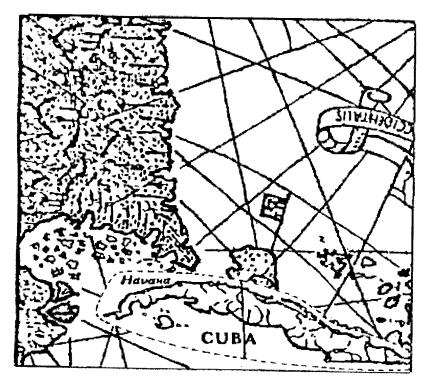
(April, 1500) when he wrote the letter which reads: "Regarding the site of this land, Your Majesty should request a world map, which is in the possession of Pedro Vaaz Bisagudo, in which Your Majesty may view the site of this land [the Americas], although this world map does not certify whether this land is inhabited or not; it is an aged world map." The "aged world map" which was in the hands of Pedro Vaaz Bisagudo at the time, could well have been the prototype for the North American shores shown on Portugal's Padrão and reflected several years later in the Cantino/Caveri world map followed by the Waldseemüller and other northern European copies.

The reason the enigmatic land mass on the Cantino/Caveri map has produced so many theories and controversy among scholars is because interpretation of early maps is far from being an exact science. The basic problem in interpretation of these early maps involves marine geography and hydrographic topography of the shoreline in question. This in turn requires a detailed understanding of the ability and expertise of these early pilots to express in words and graphically in charts the marine geography and topography of the shores they had discovered. Here it should be remembered that while the chart or map is viewed vertically as though from high above the earth, the pilot drew the chart by viewing the shoreline horizontally at eye level of the deck (or crows nest) of the ship.

A common error in interpretation of this portion of the Cantino/Caveri map is to consider the entire area as a depiction of the Florida peninsula. Actually, the Florida peninsula is only the extreme southern part, and the bulk of the coastline represents the eastern seaboard from about Cape Hatteras south to Florida. The southern tip of Florida with the depiction of the numerous small islands (Keys) and the Tortugas extending well into the Gulf of Mexico, is markedly similar to the depiction of Florida and the Keys contained in later sixteenth-century cartography,

Figure 3

Enlarged detail of the Caveri map with outline of Cuba from a modern chart (dotted line cut-out) superimposed in the correct geographical position over the original distorted depiction of Cuba.



after they were visited and charted more accurately by Spanish explorers.

In the earlier Cantino and Caveri maps the oversized bulge at the western end of Cuba, which extends too far to the north, is similar to the speculated coastline in the Juan de La Cosa map (Figure 1). This imposed geographically inaccurate depiction of Cuba from Spanish sources is the primary reason that the earlier Portuguese depiction of Florida and the Gulf of Mexico at first glance appears to be inaccurate. Although most of Cuba is grossly distorted, the early Spanish charting did provide a reasonably accurate configuration of the shoreline at the extreme southeastern end of the island. Using this true eastern end of Cuba as a guide, the correct geographical size and shape of Cuba from a modern chart has been superimposed on the Caveri map in Figure 3. This revision to the chart illustrates the relatively accurate picture of the early Portuguese charting of Florida. Notice that the Yucatan is just west of Cuba, and Florida and the Keys lie north of Havana, in a reasonably close conformance to actual geography of the area.

Those scholars who concede that the land mass follows the actual shoreline relatively close, propose that the resemblance to the actual shoreline is just a coincidence. However, the close conformance to the actual geographical size and shape, and the true relative position of Florida to the Gulf of Mexico, Yucatan, Cuba, and to the other known landmarks, makes this coincidence highly unlikely. Later Spanish exploration and charting of the area was to confirm these early coastlines as being remarkably accurate for the time, when the state of the art of both navigation and cartography is taken into consideration.

Unreported Spanish Discoveries on the Peter Martyr 1511 Map.

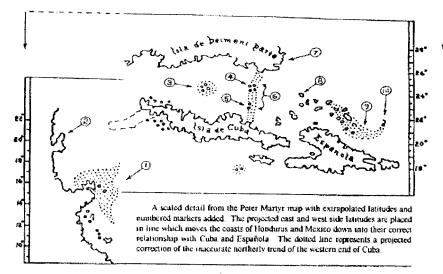
The Peter Martyr (Pietro Martire d'Anghiera) map was contained as an insert in his *Decades de Orbe Nova* [*Oceani Decas*], published in Seville in 1511.¹⁴ Martyr noted that "by studying the little parchment map, you will also find the exact positions of these countries and the dependent islands.¹⁵ Copies of the Martyr map insert have long been separated from their parent document and have been reproduced extensively in studies and popular literature on early cartography. Most of the published works on early cartography treat the Map as only an inaccurate map, made

by Andrés Morales, and of little importance to the history of discoveries in the New World. 16 Throughout his *Decades*, Martyr discusses the voyages of Columbus, the Pinzóns, Solis, Hojeda, Juan de La Cosa, and others at length, and only briefly mentions Morales as making a survey and map of Española. It is an error • and a misreading of history to attribute Martyr's map to Andrés Morales as he was one of the lesser experienced and traveled pilots of the period. Some of Martyr's information was hearsay or second-hand, but most was from first-hand contact which he was privy to, so he was in a commanding position to compile the map and have it drawn up by a court cartographer. Martyr was an admirer and confident of Columbus (a fellow Italian) so it stands to reason that he so confidently stated his map would show the "exact positions" of the islands and land because the data and detailed pilot charts would have come from Columbus and the other named experienced navigators who were on the scene.

The importance of Martyr's map lies in the fact that it revealed the accurate location of several prominent islands and landmarks (including the Yucatan and Florida), and other geographical features that predated their reported discoveries and appearance on the official Padron Real. Martyr was able to do this because he was not limited to the discoveries of official crown voyages, but could picture on his map all of the discoveries including those from unofficial, unreported, and often illegal voyages of unnamed pilots. Note that Martyr made no claim that his map was a "World Map" such as the crown's official Padron Real. Yet much of the criticism of Martyr's map is based on undue comparison with the much larger and more comprehensive maps developed from or for the Spanish Padron Real or the Portuguese Padrão. And it is quite apparent that Martyr's primary interest was in the area north of Española and Cuba as that is where most of the newly discovered and unreported geographical features on the map exist.

Figure 4

Modified scale drawing of the northwestern part of Peter Martyr's 1511 map of the Indies. From an original in the Newberry Library, Chicago.



To test Martyr's statement that he had accurately shown the location of new discoveries in the Indies, projected latitudes have been added to a detail of the northwestern portion of Martyr's map (Figure 4). These latitudes were developed on the vertical edge of the chart by proven dead reckoning navigation procedures. Martyr's map clearly shows the north shore of Española and the north shore of Puerto Rico for which the known latitudes and distance between the two can be found on a modern chart. From these three known factors it is possible to geometrically solve to obtain the fourth unknown factor. Then by geometric progression and dead reckoning extrapolation, a reasonably accurate latitude scale can be inserted on the eastern edge of the chart, which was used with confidence in identification of other unnamed landmarks. A similar exercise was used to establish the

latitudes on the western side of the map. When the latitudes were placed on the east and west vertical sides of the detail they did not agree and showed that the shorelines of Honduras and Mexico on the western side of the map were too far north. This is understandable as Martyr (or an unnamed cartographer under his direction), in assembling the several maps or charts from different sources, failed to align them properly. This error, which is common to other maps as well, was corrected by moving the pictured shorelines on the western side of the map detail down to a position where the latitudes were in line. This revised detail from Martyr's map is shown in Figure 4. Relating the projected latitudes to known latitudes, and the extrapolated relative longitude to known landmarks, establishes the location and identifies the geographical landmarks indicated by the numbered pointers on the map.

(Pointer 1) - The previously discovered extensive bank, islands, and cape off the northeast coast of Honduras are shown correctly between 14 and 16 degrees latitude. Columbus first discovered the Honduras Bay islands in his fourth (1502) voyage at which point he turned south. This coast was later explored in the Solis-Pinzón voyage of 1508 which extended the discoveries further north. Martyr would have had access to the charts of both Columbus and Solis to picture the shoreline on the western or mainland portion of his map. While Martyr's map leaves much to be desired for the perfectionist, the graphic presentation in this area is as good or better than those shown on later maps prepared by recognized professional cartographers. This cape (pointer 1) has been considered by most historians to represent the Yucatan since it is located in the correct position west of Cuba on the uncorrected Martyr map. However, the corrected realignment of the latitudes in Figure 5 clearly identifies this as the cape of Honduras. In independent research and using a different analytical approach, David W. Tilton arrived at the same conclusion. 17

Tilton established that the cape west of Cuba on the Martyr map was not the Yucatan, but was the Cape of Honduras by a comprehensive study relating configuration and toponym of Martyr's map to the later maps by Reinels, Freducci, Ribero (Ribeiro), and Turin.

(Pointer 2) – The prominent peninsula at 20 degrees latitude is at the correct latitude and correct relative position west of the modified western end of Cuba and the right distance north of the Bay of Honduras to be the Yucatan peninsula. The 1508 Solis-Pinzn expedition traveled north along the Mexican coast after leaving the Bay of Honduras, but it is doubtful that they went north of Belize and reached the Yucatan or they would have noticed and commented on the prominent Maya buildings in the area of Tulum. This postulated peninsula could very well have come from the Solis-Pinzón voyage when, upon turning east after leaving the Mexican coast, their Indian guides would have told them that the coast continued north with a large peninsula that jutted out to the east. It is also significant that the Indian guides on the voyage had identified the area as "the Kingdom of Yucatan." A controversial account by Pedro de Ledesma with the Solis-Pinzn voyage alleges they sailed as far north as the Yucatan peninsula, but this has been largely discredited. 18

(Pointer 3) – The Tortugas keys (later officially discovered by Ponce de León in 1513) are depicted correctly as several small keys surrounded by a shallow bank and located north of the center of Cuba. This oversized circular depiction of the Tortugas is similar to that contained on later maps such as the Ribeiro (Ribero), Verrazano, Ramusio, Rotz, Santa Cruz and others. The latitude of 24 ½ degrees is accurate and both the latitude and longitudinal relationship with Andros Island (pointer 4) and San Salvador/Guanahani (pointer 8) are uncannily close.

(Pointer 4) – Andros Island is shown correctly on the extensive Great Bahama Bank at 24 ½ degrees latitude. Andros Island is

generally thought of and pictured as one large island, when in reality it is five closely grouped islands separated by deep tidal channels. The Martyr map is thus geographically reasonably accurate in showing Andros as four closely grouped islands correctly located on the Great Bahama Bank. Andros Island is named Habacoa (Abacoa) on numerous maps dated later than the Martyr map. And an enigmatic large island named Habacoa appears on the Juan de La Cosa map located west of Guanahani (Guanabana) which would indicate that knowledge of this large island north of Cuba was known to the earliest pilots of the Indies.

(Pointer 5) – Los Cay and Guinchos Cay are shown correctly in the extreme south end of the Great Bahama Bank at about 22 and 23 degrees latitude. These two cays, on the southwestern edge of the bank and only about twenty miles off the coast of Cuba, would have been well known to slavers and other illegal adventurers who used the bank as a pathway to the northern Bahamas and possibly Florida.

(Pointer 6) – The extensive Great Bahama Bank is about the right dimension and shape and located correctly between 22 and 26 degrees latitude, but rather than running north-south, it should run north-northwest and south-southeast, and terminate just short of both Florida (Isla de Beimeni) and the eastern end of Cuba.

(Pointer 7 in Fig. 4, Pointer 5 in Fig. 5) – The large land mass named Isla de Beimeni Parte shown north of Cuba was Martyr's depiction of an exotic land in Taino oral mythology. The Taino myth of this exotic and supposedly wealthy land was well known to the early conquistadors in the islands and would have been passed on to Martyr in their visits to Seville and the court. The Taino were probably referring to the Yucatan and the Maya, not Florida or islands to the north, and their mythology contained no mention of a fountain of youth commonly associated with Beimeni. 19 Martyr placed the mythical land of Beimeni in the

only unexplored area north of Cuba in the area of South Florida and this placement probably influenced Ponce de León in seeking his goal of the wealthy land of Beniny (Beimeni) in that area. Martyr's map represents the geographical knowledge of the New World in 1511 and before. While the map itself may have been unknown to Ponce de León, he (or his pilot, Antn de Alaminos) would have been privy to the same geographical knowledge contained on the map.

(Pointer 8) – Guanahani (San Salvador) is shown as the northernmost charted island of the Lucayan chain and lies correctly at 24 degrees latitude. The depiction of Guanahani at the extreme north end of the Lucayan chain suggests that Martyr was using Columbus's chart as a reference for this portion of the map. After landing on Guanahani, Columbus turned south and west and all his recorded voyages were south of that point, so Guanahani would have been shown on his chart as the northernmost island of the Lucayan chain of islands. this also agrees with the map of Juan de La Cosa (Figure 1) which was derived from Columbus's chart and shows Guanahani (Guanabana) at the north end of the Lucayans.

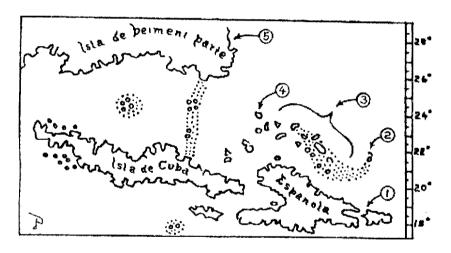
(Pointer 9 and 10) – These pointers illustrate the extensive Caicos Bank which contains the Caicos Islands, Grand Turk, and numerous smaller cays. In Ponce de León's log the bank is referred to as "Banks of the Babueca" and Grand Turk (pointer 10) is referred to as "El Viejo."

The annotated map in Figure 5 illustrates this relationship between the shorelines in Martyr's 1511 map and the itinerary of Ponce de León's 1513 voyage. Peter Martyr's map together with the itinerary of Ponce de León's voyage provides a particularly important tool for the study of Spanish exploration and charting of Florida shorelines and adjacent waters since it accurately shows numerous significant geographical discoveries that only appeared in New World cartography at a later date.

Figure 5

A scaled drawing of the northwest portion of Peter Martyr's 1511 World Map. Projected latitudes are added. The numbered arrows indicate geographical points related to Ponce de León's 1513 voyage.

- (1) Departure from "Punta Aguada" on the western end of Puerto Rico, March 5, 1513.
- (2) Anchored at "El Viejo" (Grand Turk), first island encountered on the "Banks of the Babueca."
 - (3) Passed and identified (from his Indian guides) five islands in the Lucayans (Bahamas).
 - (4) Stayed 10 days on "Guanahani" (San Salvador). Prepared for ocean passage to Beniny (Beimeni).
 - (5) Landing on the coast of Florida at 28 degrees latitude (Melbourne Beach), April 2, 1513.



The Depiction of Florida in the Early Conte Ottomano Freducci Map

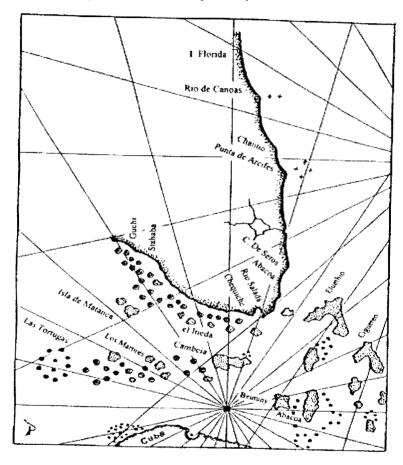
The Freducci map, made by the map-making house of Conte Ottomano Freducci, was initially published in Italy and is generally dated to 1514 or 1515 and thus is believed to be one of the first maps showing the shoreline of Florida from Ponce de León's voyage. Later versions of the map were attributed to Angelo Fre-

ducci, another member of the map-making house. The Freducci map has been the subject of study by a considerable number of scholars, the most prominent being Giuseppe Caraci.²⁰ Giovanni Uzielli,²¹ Osvaldo Baldacci,²² and David O. True,²³ with lesser studies by Prowse, Ganong, Layng, and Hoffman. Morison and Scisco referred to the map in their accounts of Ponce de León's voyage and the latest study is that by Jerald T. Milanich and Nara B. Milanich.²⁴ Milanich's theory is based on the premise that the Freducci map was made in 1514 or 1515 from the voyage of Ponce de León and therefore depicts his landfall site and geographical landmarks on his track along shore. The Milanich study is an incomplete work that cites and considers only a narrow selection of secondary sources friendly to his theory and does not cite or consider the many other recognized and accepted research papers written on the subject. Milanich's attempt to correlate the names of landmarks on the map with the names and descriptions of geographical places where Ponce de León touched shore, as reported in Herrera's summary of Juan Ponce's log, is flawed by his lack of knowledge of geography related to sixteenth-century cartography. An example of this is Milanich's conclusion from a study of the map that Ponce de León landed on one of the off-shore islands of southern Georgia. This conclusion is not supported with a rational argument, and Milanich fails to cite and is apparently unaware of the published research that has established Ponce de León's landing in Florida as south of Cape Canaveral near Melbourne Beach ²⁵

A careful study of the Freducci map indicates that of the nineteen place names listed, only six can be directly related to Ponce de León's voyage. The other thirteen place names can easily be traced to much later voyages and later cartography. And further, there are geographical features and islands depicted on the map that were not seen and charted during Juan Ponce's 1513 voyage. Lake Okeechobee with the St Lucie River and inlet lead-

Figure 6

Scaled detail from the Conte Ottomano Freducci map showing the area representing Florida. Place names are typed from the Spanish script for clarity and placed in the same position as on the original map.



ing east to the coast can easily be identified although it is not named. This prominent inland geographical feature was discovered much later than Ponce de León's 1513 voyage. The numerous small islands shown in Florida Bay north of the Keys (now

called the "Thousand Islands") were also not seen or charted during Juan Ponce's 1513 voyage.

Ponce de León on or about 21 May (1513) departed the Tortugas area in a northeasterly course to San Carlos Bay on the west coast of Florida, then in the period 15-21 June returned direct to the Tortugas. During this portion of his voyage he was ' never in sight of the Thousand Islands keys nor did he report them in his log. He did however report the offshore islands of Gasparilla, Captiva, and Sanibel ("some islets which were running out to sea"), and these prominent islands and the prominent San Carlos Bay (in which he anchored) and Cape Romano are not shown on the Freducci map. It should be noted that the western end of the Freducci map terminates in the northwestern end of Florida Bay before reaching Cape Romano on the southwestern Juan Ponce spent twenty days on the West coast of Florida. Coast of Florida just above Cape Romano where he had his pilot Antn de Alaminos sound and chart the large San Carlos Bay. Milanich relates the Isla de Matanca (Isle of the Slaughter) to Sanibel Island in San Carlos Bay, named Matanca by Juan Ponce for a battle fought on the island. The theory is appealing, but the location of the island as shown on the map is in the middle of Florida Bay and over 150 miles from Sanibel. The map clearly stops at the northwestern end of Florida Bay and does not include San Carlos Bay or Sanibel Island visited by Juan Ponce. of Ineda within the Thousand Islands cannot be related to the Ponce de León voyage either by name or location, however, the names of Guchi and Stababa shown just on-shore bear some resemblance to Indian names recorded by Fontaneda in his Memoir 26

Another prominent geographical feature that can be identified is Cape Canaveral with its off-shore reefs (or shallows) correctly located north of the St. Lucie Inlet and labeled "Punta de Arcifes" (Point of Reefs). But Juan Ponce landed south of Cape Ca-

naveral and never saw or reported this prominent cape in his log so the source for the name must be from a later map. Herrera mentions a "Punta de Arracifes" in his account with an unclear location somewhere south of Cabo Corrientes, (Lake Worth Inlet) which is far removed from the actual location or the location on the Freducci map. The question is moot since the location of Punta de Arracifes has been identified in this and other studies as one of Herrera's several insertions from later charts rather than being a place name from Ponce de León's log.²⁷

Further south of Punta de Arcifes appear the names C De Setos, Abacoa, Rio Salada, and Chequiche. Of these, Abacoa could possibly be the Indian village named "Abaioa" in Juan Ponce's log, but C. De Setos and Rio Salada cannot be related to the log. Chequiche can be related to the "Chequescha" mentioned by Herrera, but it cannot with confidence be related to Juan Ponce's Herrera mentioned that Juan voyage. Ponce passed by Chequescha on the hurried return voyage, but the name did not appear in the exploration account earlier when he had been in the Biscayne Bay area taking on firewood and water. He named the island in the area Santa Marta with no mention of the name Chequescha. The name most likely originated with Fontaneda's "Tequesta" and located in the Miami area at a much later date. Herrera quotes Fontaneda often in his Historia and would have had knowledge of this place name in the Biscayne Bay area (Miami), but it was ostensibly unknown to Ponce de León.

Now moving offshore on the map we find some of the islands in the Bahamas and the Florida Keys can be related to the Ponce de León voyage while others are derived from later voyages and cartography. In the Bahamas, the large Grand Bahama Island is correctly placed, with a reasonable configuration, and named "Eluethio." Ponce de León's track on both the inbound passage and outbound return passage passed well south of Grand Bahama and he never saw it or reported it in the log. However, when Juan

Ponce was in the vicinity of one of the Berry Islands on the return trip, the old Taino woman he had picked up told him the island was named "Bahama." She was probably referring to the general area rather than the particular Berry Island and Grand Bahama, as well as the entire Bahama chain, picked up the name at a later date.

The island named Cigueteo on the Freducci map is correctly located and correctly named to be the present island of Eleuthera. Later maps such as the Turin (1523), Ribeiro (1527), Velasko (1622) (published by Herrera), as well as the Chavés rutter (1530) firmly identify the name Cigateo (Cigueteo) as applied to Eleuthera. After sailing two days in a northwesterly direction from Guanahani (San Salvador), Ponce de León noted Eleuthera without identifying it or naming it, ostensibly because it only appeared on Spanish charts at a much later date.

The name "Beiminy" shown on the island west of the island of Abacoa can with confidence be traced to the "Beniny" (Beimeni) of the 1513 Ponce de León voyage. In September 1513 when Ponce de León decided to abandon his mission and return to San Juan (Puerto Rico) he sent Ortubia with Alaminos as pilot on a last ditch effort to locate the island of Beniny (Beimeni). Cruising in the central Bahamas, Ortubia found "a large island, cool, and with many pools and trees" and promptly declared it was Beniny.²⁸ From Ortubia's description and the area of his search, the island can be identified as Andros. And Andros on early cartography is generally named Abacoa (Habacoa on the Juan de La Cosa map). The Spanish pilot Francesco Gordillo, identified Andros Island as Abacoa on several slaving voyages between the years 1514 to 1517.²⁹ The Freducci map shows Abacoa (Andros) accurately as an elongated island, oriented north-south, and located correctly on the Great Bahama Bank north of Cuba. Ortubia's vain and unfounded assertion that Ponce de León's Beniny was in the vicinity of Andros could be what produced the depiction of an island named Beiminy on the Freducci map located in the open sea west of Andros (Abacoa) where no island exists.

The naming of the Florida Keys as Los Martires and the westernmost Dry Tortugas as Las Tortugas on the Freducci map (as well as on all other contemporary maps) can be traced directly to • Ponce de León since he named them such in his log. The name Cambeia at the eastern end of the Keys is ascribed by Milanich in a leap of faith to be the Achecambev reported by Ponce de León. Cambeia is shown as a large elongated island in the vicinity of Key Largo. Juan Ponce had given the name of "Polo" to Key Largo on his eastbound passage through the Keys and simply lumped all the other smaller keys into the name Los Martires. Herrera reported that Juan Ponce on his hurried westbound return trip passed by an island called Achecambey (probably Matecumbe) before coming to Polo (Key Largo). Achecambey is probably one of Herrera's several place names from later sources which he inserted into his account. Herrera's source for the name is uncertain. The Indian name does not appear on other sixteenthcentury maps nor does it appear in Fontaneda's listing of numerous place names.

The Conte Ottomano Freducci map is generally given a date of 1514 or 1515 which is the reason for it being named as the earliest map of Florida and derived from Ponce de León's 1513 voyage. This study indicates that both the date of the map and its source of data directly from Ponce de León's 1513 voyage is questionable. A primary factor that mitigates against the map being derived from Ponce de León's voyage is the fact that his extensive exploration of the southwestern coast of Florida is not shown. The Freducci map-making house in Italy was far removed from Seville which was the source of cartography related to Spanish discoveries. Accordingly, while the Freducci map could have contained some data indirectly obtained from Ponce de León's voyage, it would have been late second or third hand

information and mixed with other geographical data from charts of a much later date than the postulated 1514 or 1515 date. And considering this later date, the Freducci map is then revealed as not only unrelated to Ponce de León's voyage, but is an incomplete and inaccurate depiction of Florida when compared to the later cartography from which it was copied.

Conclusions

The reports of the early discovery of Florida and the adjacent North American shores prior to Ponce de León's 1513 voyage by either John or Sebastian Cabot, the Corte-Real brothers, or Amerigo Vespucci, are without valid historical foundation.

The mainland shorelines, shown northwest of Cuba on the Portuguese/Genoese Cantino and Caveri maps, are a depiction of Florida, the Gulf of Mexico, and the lower eastern seaboard of the USA. The theories that the Portuguese/Genoese cartographers intended these mainland shores to represent the shores of eastern Asia, or the north shore of either Cuba or the Yucatan, are not supported with viable evidence.

The most likely candidate for the early significant discovery and charting of Florida, as recorded in the Cantino and Caveri maps, is a Portuguese exploration voyage of undetermined origin conducted well before Ponce de León's epic 1513 voyage. The date of the Portuguese voyage is uncertain, but it would have been well before publication of the Cantino map (ca. 1502) and was probably conducted in the last years of the fifteenth-century.

The Peter Martyr map is an important tool for study of the history of early Spanish exploration and charting since it accurately shows numerous significant discoveries (including the Yucatan and Florida) that only appeared in New World cartography at a later date.

The generally accepted date of 1514 or 1515 for the Conte Ottomanno Vespucci map is too early as many of the islands or ,

landmarks on the map were not discovered until a much later date. The Freducci map is unrelated to Ponce de León's voyage and is an incomplete and inaccurate depiction of Florida when compared to the contemporary cartography from which it was copied.

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