

A SYMPOSIUM

The Discovery of the Americas and the
Great Scientific Project of the Renaissance

Columbus and Toscanelli

by Ricardo Olvera

One of the most controversial matters relating to the discovery of the Americas relates to the Italian Renaissance. In the scientific seminars held during the Council of Florence, Paolo dal Pozzo Toscanelli presented his idea of the project. Based upon the scientific information brought by cosmographers, geographers, and experts in the science of navigation gathered there together, the general lines were traced of what would, fifty-three years later, become the “greatest event after Creation,” according to one Spanish author—the discovery of the New World.

The direct connection between the Italian Renaissance and the Spanish exploit is established by the correspondence between Paolo dal Pozzo Toscanelli and Christopher Columbus. In Toscanelli’s letter to Columbus in 1480, and in the ones written by him six years before to Fernão Martins, agent of the Portuguese King Alfonso V, the Florentine scholar urged the Iberian powers—Portugal and Spain—to realize the transatlantic project discussed in Florence, and he laid out for them the map and the scientific information required for its success (SEE Map I).

As Fernando Columbus, Christopher’s son, reports in his *Life of the Admiral*, the basis upon which his father founded his project was as follows:

A Master Paolo, physician of Master Domenico, a Florentine contemporary to the same Admiral, was the cause in great measure of his undertaking this

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voyage with greater spirit. The fact that the cited Paolo was a friend of Fernão Martins, canon of Lisbon, and that the two were writing letters to each other about the sea voyages made to the country of Guinea during the time of King Alfonso of Portugal, and about what could be done in the westward direction, came to the ears of the Admiral who was most curious about these things. And he hastened to write, by way of one Lorenzo Girardi, a Florentine who was in Lisbon, to the said Master Paolo, about this, and sent to him an armillary sphere, revealing to him his intent. Master Paolo sent him a reply in Latin. . . .

Later Fernando Columbus transcribes the first letter from Toscanelli to Christopher Columbus:

To Christopher Columbus, Paolo, physician, greetings.

I see this magnificent and grand desire of yours to see how to get to [the regions] where spices are born, and in reply to your letter I send you a copy of another letter which I wrote some time ago to a friend and familiar of the most serene King of Portugal, before the Castillian war, in reply to another letter which by commission of his Highness was written to me about the said matter; and I send you another such map of sailing, as the one I wrote to him, through which your questions will be satisfied.

Toscanelli affixed to the bottom of his letter to Columbus, a copy of the letter which he had sent earlier to Fernão Martins, the canon who operated as an intermediary between the republican networks of Florence, and those republicans who were trying to convince the King of Portugal to put the navigational capacity of that country in the service of this great project. This letter had been directed at awakening the commercial interest of

the powerful, painting with vivid colors the fantastic riches of the Far East; and attached to it was the *carta de marear* or “navigational map,” which Columbus never let out of his sight for even a moment, during his first voyage.

Did Toscanelli believe that following his navigational plan, the coasts that one would see rise on the horizon would be those of the Orient? Or did he perhaps expect those of a new continent? One fact makes us suspect the latter: the distance at which Columbus encountered America, and likewise the principal geographic and nautical characteristics of the route, were precisely those of Toscanelli’s navigational map. Instead of fantastic palaces covered in gold and the refined civilization of the Orient, Columbus encountered an almost savage continent, in which everything still needed to be done. The prevailing mentality of the courts of Europe at the time, would have made it very difficult to find support for a project involving so much nature and so little art.

Either way, Toscanelli and the strategists of the Renaissance succeeded in their plan to mobilize the maritime-commercial powers to an enterprise which the “experts” of the age considered “not income-producing” (just as today, the cost-accountants consider the project of colonizing the Moon and Mars as not “income producing”), and such experts notwithstanding, there was opened up for humanity the most formidable period of development of which we have memory.

Are Toscanelli’s Letters Genuine?

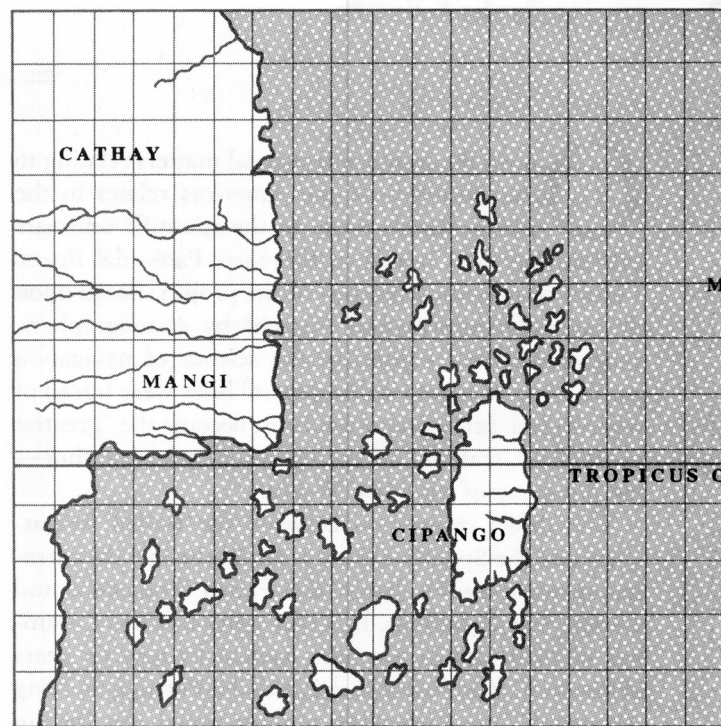
At the Congress of Americanists held in Paris in 1900, Henry Vignaud, then First Secretary of the American Embassy in France, denied for the first time the authenticity of the famous correspondence between Toscanelli, Martins, and Columbus, in a document which was immediately widely diffused through the press of the day. Over the years since 1900, the vital and previously well-known link of Columbus to Toscanelli—and thus, to the Council of Florence—was hidden, and ultimately, forgotten.

In essence, Vignaud said that the discovery of the Americas was not the result of any scientific project, but rather of chance. According to Vignaud, Columbus never had any intention of reaching Asia, let alone the New World, but only of reaching one of the islands located west of the Canaries. If by chance Columbus did have any scientific theory, he would not have gotten this from Toscanelli, nor from any of the cosmographers of the Renaissance, but from Ptolemy, Aristotle, and other “authorities” of medieval geography and cosmography.

Vignaud based this on his “demonstration” that the

letters of Toscanelli to Christopher Columbus, and above all from Toscanelli to Fernão Martins, were apocryphal. In refuting this assertion, the historian Clement Markham argued that

[f]ew documents of this period are so well certified [as this letter]. Las Casas, an absolutely trustworthy and honest historian, not only furnishes us with a Spanish translation, but informs us that one part of the original, it seems, the navigational map adjoined, was in fact in his possession at the moment of writing. In the *Life of the Admiral*, by Fernando Columbus,



MAP I. Reconstruction of Toscanelli’s map sent to Columbus in 1480.

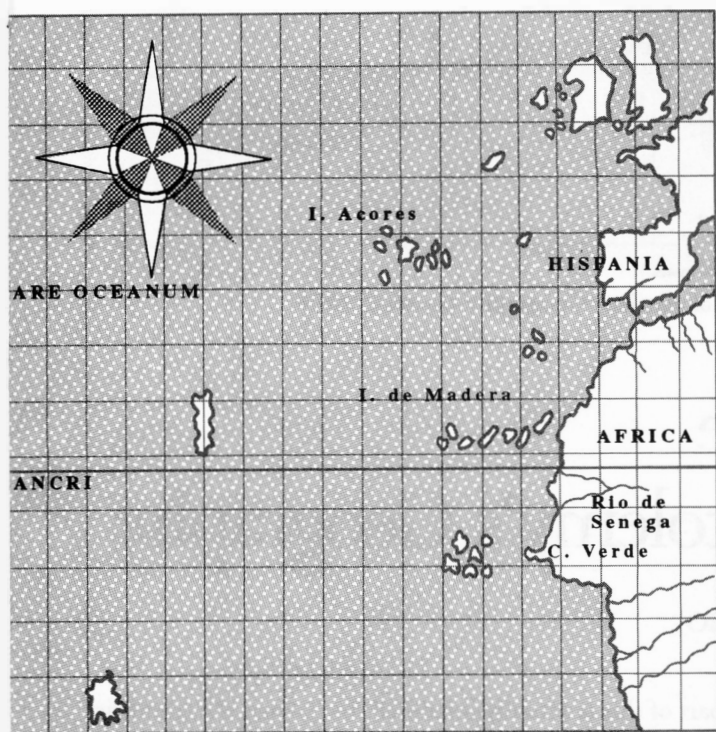
there is included an Italian translation. And one copy of the original version in Latin was found in the Columbus Library in Seville in 1860, in the frontispiece of a book by Pius II which had belonged to Christopher Columbus, written in the Admiral’s own hand.¹

In a reply to Markham, Vignaud attempted to bolster his claim by arguing that Fernão Martins never existed, and that *he was a mere invention*, created to explain the inexplicable: the tie between Columbus and Toscanelli—which was impossible according to Vignaud, because Columbus was never in Florence, and Toscanelli never left Italy.

Did Fernão Martins Exist?

Ironically, by questioning the existence of Fernão Martins, Vignaud actually helps us to highlight the point of conception of the Renaissance exploration project.

For in the work of Cardinal Nicolaus of Cusa entitled *Tetralogus de Non Aliud* (*Tetralogue on the Not-Other*), there unfolds a Socratic dialogue between “Nicolaus” and three interlocutors, of whom the main one is *Ferdinando Martin Portugaliensi natione*, canon of Lisbon, whose full name is Fernão Martins de Roritz (from the



town of Roritz in Portugal). The other two are Oanes Andrea Vigerius, or Gian Andrea, from Vigevano in northern Italy; and Petrus Balbus Pisanus, or Pietro Balbi, born in Pisa, a former study companion of Cusa and Toscanelli in Padua. This same Fernão (Martins) of Roritz, relative and private councillor to Alfonso V, would, together with Toscanelli, later sign on Aug. 6, 1464, the last will and testament of Nicolaus of Cusa, as a witness and as his personal doctor; a few days later, he would attend Cusa’s funeral.

A relative of Fernão Martins also enjoyed the confidence of Cardinal Cusa: Antonio Martins, the bishop of Oporto, born in Chavez, a town near Roritz. It is this Antonio Martins who had accompanied the cardinal’s delegation to Constantinople in 1437, sent by Pope Eu-

gene IV to convince the Emperor and the Patriarch of Constantinople of the need to be present at the Council.

Toscanelli also played the role of interlocutor in one of Nicolaus of Cusa’s dialogues, on the squaring of the circle, entitled *De Arithmetis Complementis* (*On Arithmetical Complements*). Born in 1397, one of the most outstanding participants in the Council of Florence, Paolo dal Pozzo Toscanelli died at age 88, in 1482, a decade before the realization of his great project. He had been Cusa’s fellow student in Padua, and Cusa dedicated to him, besides the cited book, another one entitled *De Geometricis Transmutationibus* (*On Geometrical Transformations*).

Thus we see, contrary to Vignaud, that Nicolaus of Cusa, Toscanelli, and Martins formed a close intellectual circle, whose scientific work was unified in and grew out of the great Florentine Council. One indication of the educational efforts which the leaders of the Renaissance undertook to win over the “best mariners of the world” to their cause, is the fact that Columbus’ most treasured book, which he carried with him in his voyages of discovery, was the *Historia rerum ubique gestarum* (*Universal History of Facts and Deeds*) of Pope Pius II—the humanist Aeneas Silvius Piccolomini—in whose frontispiece Columbus himself had copied in his own hand Toscanelli’s map. It had been Piccolomini who penned the great lament at the fall of Constantinople to the Turks in 1453: “This is a second death for Homer, a second death for Plato: now where will we be able to find the works of genius of the Greek poets and philosophers?”

Pope Pius II died on Aug. 14, 1464, three days after Cardinal Cusa, and the chances of an immediate Christian crusade to liberate Constantinople and free the Mediterranean from Turkish control, were sharply reduced; this thread would be picked up later, through the Reconquest of the Iberian peninsula, brought to a close in 1492 by the same Ferdinand and Isabella who would dispatch Columbus that same year on the greatest military flanking move in history—to bypass the Venetian-Turkish stranglehold, and reach the east by the rear, going west across the feared *ocean-sea*. And thus it was that, after the deaths of Cusa and Pius II, the scientist Toscanelli returned to Florence “to continue his studies, turning his face not to the east, but to the west, thinking about a new route for commerce and for civilization.”²

NOTES

1. Clement R. Markham, *Toscanelli and Columbus: A Letter from Clement R. Markham to Henry Vignaud* (London: Sands and Company, 1903).
2. Angel de Altolaquirre y Duval, *Cristobal Colon y Pablo del Pozzo Toscanelli* (Madrid: Imprenta de Administracion Militar, 1903).