

Reality is malleable; the paradigms molding it die hard. Christopher Columbus, on the threshold of the Middle Ages' transition into the early modern period, one foot deep in Christian tradition as the other lifted outward to test terra incognita, combined medieval dogmatism with the Renaissance impulse to revise in accord with its desire. Within Columbus's design to "buscar el Levante por el Poniente" (search for the East on behalf of the West), traditional beliefs were alternately sacrosanct and challenged, some protected by an impermeable hermeticism. Others manipulated, dismissed, or superseded by new beliefs often equally ungrounded. Medieval paradigms exported from Europe to the "Indies" would erode only slowly. In Lopez de Gomara's words-- "Experience runs counter to philosophy" and new structures of inference, now "scientific," and ostensibly based on empirical data, begin to reshape reality during the colonial process of assimilation.

It was accepted during much of the fifteenth century, on the basis of Aristotelian and Ptolemaic authority, that the regions south of Ethiopia and Mauritania constituted a "torrid zone" uninhabitable by man. However, Portuguese explorations of the African coast in the 1440s, led by Prince Henry the Navigator, inevitably dispelled the myth of an equatorial inferno. Columbus himself witnessed the perfect habitability of the "torrid zone" during his 1482-1483 participation in an expedition to the fortified Portuguese trading post at So Jorge de la Mina. If the ancient assertion of a "torrid zone" was incorrect, then it was conceivable to Columbus--to the Renaissance Columbus--that traditional notions regarding the westward distance to the Orient and the navigability of the Sea of Darkness were likewise wrong or misconceived. Columbus's pre-1492 voyages thus result in the recognition that "experience runs counter to philosophy" and inaugurate his modernist mode of revision and recontextualization. Experiential data (perceptions gained on the coast of Africa) disprove an ancient supposition (existence of the "torrid zone"), compel its dismissal, and prefigure the revisionism which Columbus will later repeatedly employ to disavow textual authorities unfavorable to his enterprise. These later examples of Renaissance revisionism, however, are characterized by a mixed metaphor. Whereas in the case of the torrid zone Columbus substantiated his revision with empirical data, in all other pre-1492 arguments he revised traditional beliefs with nothing more than a new collection of a priori suppositions. The early Columbus, constructing the feasibility of his enterprise, merely replaced one ungrounded belief with another, deposed one myth with another more flattering to his design.

The authoritative geographical work at the time Columbus formulated plans for his voyage was Ptolemy's "Geography." Although dating to the second century, the "Geography" had been lost for centuries and was first reintroduced to western Europe in a 1410 Latin translation. The "Geography," an "almost paralyzing discouragement from exploration by sea," as J.H. Parry wrote, imposed a formidable theoretical obstacle to Columbus's plan, for there was as yet no seafaring experience to refute it. Columbus was determined to break with this tradition. To establish the viability (and thus the funding) of his enterprise, however, he would need to ground an argument in texts counteracting the inherent damage done to his design by Ptolemy. He would need to work retroactively, from his projected faith in the mission's ultimate success to its a priori textual substantiation or validity.

As Columbus's son Fernando has explained, the works of Marco Polo and John Mandeville, recounting journeys "far beyond the eastern lands described by Ptolemy and Marinus," became the compass for Columbus's refutation. Had their imaginations not so obviously infused the narratives of their travels, however, Columbus would have had, as he thought, textual authority grounded in actual experience. But Marco Polo and John Mandeville, (the latter in particular), had a flair for the fantastic. The unreliability of their geographical data is implicit in their depiction of the Orient. Theirs is an imaginary Orient molded by Christendom's desire. All of the predominant European motifs are echoed: a land of gilded abundance available for the taking, a population awaiting the messengers of Christendom, a Christian ally in the legendary kingdom of Prester John, a flanking of the infidels, an ecumenical unification. The fantastic then gained expression in geographical calculations, Marco Polo overestimating the east-west breadth of Asia and, more dramatically, imagining fifteen hundred miles between the mainland and Cipango (Japan), thus extending the Asiatic islands into the proximity, by a westward sail, of Europe. Columbus--fired by the idea of serving as Christendom's emissary to the Great Khan of Cathay (China)--thus concludes that "India (meaning Asia) neighbors on Africa and Spain.)

"Scientific" verification of that belief was then solicited through Columbus's 1481-1482 correspondence with the Florentine avant Paolo del Pozzo Toscanelli. Toscanelli, a prominent physician, mathematician, astronomer, and geographer, was also--to judge by his descriptions of Cathay--under the sway of Mandeville and Marco Polo. His revisions of Ptolemaic geography were based upon conjecture and influences by his family's interest in the spice trade and, specifically, in securing a seaborne alternative to the overland trade routes menaced by the Turks. Toscanelli assures Columbus that "There is not a great distance to be travelled by sea" in a westward sail to the Orient.

Columbus combined Toscanelli's "scientific" calculations both with his own hypotheses and with the religious geography of the French Cardinal Pierre d'Ailly, as expounded by d'Ailly in his book "Imago Mundi," written in 1410. This treatise, as fanciful as it was erudite, departed from all the known sources--Greek and Arab geography, biblical references, existing legends, and travel literature--to fashion an argument which Columbus enthusiastically embraced and also heavily amended. In one passage (accompanied by Columbus's marginal notes), d'Ailly observes that "The length of the land toward the east is much greater than Ptolemy admits." The wrapping of the earth by d'Ailly's disproportionately extended Orbis Terrarum again corroborated Columbus's belief that the ocean between the western extremity of Europe and the eastern edge of the Orient "is not of great breadth." More land meant less ocean. Columbus then follows d'Ailly into the fourth Book of Esdras in which God commands that "the waters be gathered in the seventh part of the earth," leaving six to the Orbis Terrarum. Toscanelli's reduction of the actual 10,600 air miles between the Canary Islands and Japan to 3,000 miles will now seem an overestimation to Columbus, who reduces the oceanic expanse to 2,400 miles, calculated by confusing the Arab mile (1973.5 meters) with Ptolemy's mile (1481.75). On the eve of the 1492 voyage these a priori conjectures, elaborated to suit the predetermined conclusion, are accepted by Columbus as positive knowledge ratified by Scripture. "How much is that space between the last beaches of Spain and India?," Seneca rhetorically asks in a text read by Columbus, "the space of a very few days, if the ship is driven by a favoring wind."

On August 3, 1492, Columbus set sail in pursuit of the magnificent Cipango and Cathay as described by Marco Polo and Mandeville: bursting with riches, eager for Christianity, extending far into the Sea of Darkness. The erroneous calculations regarding the breadth of the sea had situated Cipango and Cathay in the proximity of the American continents, which were not only unknown to Columbus and his contemporaries but were also inconceivable--inadmissible--in the cosmography of the time. When sailors sighted land precisely in the imagined vicinity of the East, on the night of October 12, 1492, Columbus had all the (false) proof he needed to enshrine his conviction. He believed (a belief he took to the grave, despite overwhelming evidence to the contrary) that his reckonings had at last been substantiated, that Hispaniola was Cipango and Cuba a peninsula of mainland Cathay, and that the mockery he had suffered was a token of his genius rather than of his folly.

The truth, of course, was otherwise. Columbus's paradigm bespoke one reality while the islands before him presented another. Rather than the ornate kingdoms described by the travel accounts, there were natives running around "naked as their mothers bore them." The landscape seemed wrong. There were insufficient signs of spices. Marco Polo's "gold in the greatest abundance, its sources being inexhaustible" was scarcely in evidence among a people described by Columbus as "very deficient in everything."

Such juxtaposition of the expected and the revealed was not unfamiliar to a sailor who had learned that "experience runs counter to philosophy." The model of revision rehearsed in 1482-1483 (and then extended into fanciful calculations) delivered its masterpiece when Columbus applied it inverted to the Caribbean, when the philosophy subordinated the experience. Whereas in the "torrid zone" Columbus revised a paradigm a posteriori in the New World, because the unknown continent must be Asian, reality was revised to fit the paradigm. Desire debilitates traditional truths at one turn and fortifies them at another; a malleable reality is molded, as Hernan Perez de Oliva would put it in 1528, "to unite the world and to give those strange lands the shape of our own."

Perez de Oliva's observation inaugurates a recurrent theme in Columbus scholarship: the "discovery" was characterized by conceptual manipulation of the New World to suit the European frames of reference attempting its cognition. For example, in the sixteenth century, Bartolome de las Casas, whose "History of the Indies" constitutes the cornerstone of Columbus studies, observed that "it is a marvelous thing how whatever a man strongly desires and has firmly set in his imagination, all that he hears and sees at each step he fancies to be in its favor." The same point is made by almost all subsequent Columbus scholars, among them Antonio Ballesteros Beretta ("Su mente exaltada por el misticismo le conducia a conclusiones desorbitadas"), Edmundo O'Gorman ("Under the sway of his desire reality was transfigured"), Tzvetan Todorov ("There is a definite relationship between the form of his faith in God and the strategy of his interpretations"; "...

all information is vitiated by the fact that Columbus had determined everything in advance"), and Beatriz Pastor ("... lleva al cabo una indagacion que oscilaba entre la invencion, la deformacion y el encubrimiento"; "no se cancelo el arquetipo sino que se aplazo simplemente su realizacion plena mientras comenzaba a funcionar como mecanismo de reduccion, deformacion, y ficcionalizacion de la nueva realidad"). Even the sometimes apologetic account of Paolo Emilio Taviani concurs in this ("... reality assumes a purely subjective value"; "Reality must adjust to what he (Columbus) says it is"), as does the mythopoetic biography of Washington Irving, when acknowledging that "The artless manner in which he (Columbus) mingles the rhapsodies and dreams of his imagination with simple facts and sound practical observations, pouring them forth with a king of scriptural solemnity and poetry of language, is one of the most striking illustrations of a character richly compounded of extraordinary and apparently contradictory elements."

The contradictions to which Irving alludes are provisionally reconciled: Hispaniola is stylized Cipango and Ophir, the newly encountered archipelago is denominated "Indies" and "Antilles" as the oriental and mythological interpretations compete, confuse, and are finally synthesized under the rubric of a conceptual reorganization which attempts to reconcile each of its determinants. This assimilation of the new reality into European frames of reference gains constant expression. Trees whose magnificence are unimaginable to Columbus are described by the oxymoron "beautifully deformed"; idolatrous natives are described as "without sect" (that is, predisposed to evangelization); natural ports are perceived in terms of their capacity for European trade ships; and later, the continent's vastness is biblitzed through the gloss of medieval mappaemundi poetics as Columbus reshapes the earth (a pear-shape like "a woman's nipple on a round ball," as he puts it) placing Terrestrial Paradise on the rise--the nipple--because the volume of the Orinoco River was otherwise inadmissible to Columbus's cosmography.

It is for this reason, borrowing a concept refined by Edmundo O'Gorman, that Columbus's encounter with the Americas is characterized as much by invention as it is by discovery. Use of the term "invention" in the context of exploration was not uncommon during the sixteenth century. Columbus himself mentions it, Las Casas uses it in conjunction with "discover," and Perez de Oliva displays it prominently in the title of his "History of the Invention of the Indies." This usage of "invention" is in closer etymological relation to its Latin root *invenire* (to find) than contemporary usage. The early modern "invention" is almost synonymous with what we now term "discovery." The meaning of "invention" in reference to exploration, however, seems to possess connotations beyond the mere root "to find." One would be hard pressed to say "I have misplaced my shoe. Will you help me invent it?" "Invention," in the context of early modern discovery, rather suggests a compromise between the pure etymological meaning (to find) and the process of reshaping that characterized cognition of the New World. Columbus "finds" something ("discovery") and then transforms it, instrumentalizes it, into something he can utilize ("invention").

While Columbus's adventures incorrectly claimed for the Spanish a westerly route to the Indies, Vasco da Gama's first voyage revealed a true route--southward around Africa and then east to India. Vespucci's 1501 voyage made evident the enormity of South America and demonstrated to the satisfaction of most Europeans--Columbus excepted--that the newly found lands were a "Mundus Novus" having nothing to do with Cipango and Cathay, a vast continental obstacle between Europe and the East it sought. Once Balboa crossed the Isthmus of Panama and chanced upon the Pacific in 1513, exploration was increasingly directed toward the search for a strait through the American landmass. Magellan culminated the quest when in 1520 he discovered that there was no strait other than the one that now bears his name, impractical insofar as a trade route to the Indies was concerned.

By these increments, Europe thus came to understand that its discovery of the Indies was an invention. Columbus remained faithful to his original conviction as the Spanish seaborne empire soon consolidated its loss into a gain, transformed the barrier into booty. The impetus "to give those strange lands the shape of our own" remained in force throughout the sixteenth century, but the sense of "to discover" seeped away from the Columbian invention, to be pulled increasingly toward its antonym "to cover." The colonial agenda of reshaping was implemented more in the realm of the practical than the conceptual. It comprised a socio-cultural, political, religious, and demographic layering of one civilization upon the ruins of others, a covering over, a palimpsest meshed under pressure.