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# The Sixteenth-Century Venetian Celebration of the Earth's Total Habitability: The Issue of the Fully Habitable World for Renaissance Europe\*

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I see that you are still directing your gaze upon the habitation and abode of men. If it seems small to you, as it actually is, keep your gaze fixed upon these heavenly things, and scorn the earthly. For what fame can you gain from the speech of men, or what glory that is worth the seeking? You see that the earth is inhabited in only a few portions, and those very small, while vast deserts lie between [*vastas solitudines interiectas*] those inhabited patches [*maculis*], as we may call them; you see that the inhabitants are so widely separated that there can be no communication whatever among the different areas; and that some of the inhabitants live in parts of the earth that are oblique, transverse, and sometimes directly opposite your own [*partim obliquos, partim transversos, partim etiam adversos stare vobis*], from such you can expect nothing surely that is glory.

*Cicero, De re publica, VI.19–20*

FROM the beginning of the sixteenth century Venice had emerged as the main center of map production in Europe. While the house of Antonio Lafreri at Rome could claim to be the largest cartographic establishment in Italy, it specialized in maps of cities and those cele-

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brating historical events. Venice projected a far more cosmopolitan, even global, awareness and commitment.<sup>1</sup> Here Giacomo Gastaldi, the cosmographer to the republic of Venice, excelled all other cartographers of the age in producing the most accurate maps of often hitherto unknown areas of the earth's surface.<sup>2</sup> He clearly benefited from his friendship with Giovanni Battista Ramusio, a humanist scholar, whose intellectual enterprise in the course of the late 1530s drew upon a network of such aristocratic as well as talented luminaries as Pietro Bembo, Gerolamo Fracastoro, and Andrea Navagero. It was Navagero who provided Ramusio with the initial materials from Peter Martyr and Francisco González de Oviedo on the New World for what developed into the formidable venture revealed in the *Navigazioni e viaggi*. This work offered both a source and a medium for some of Gastaldi's own production.<sup>3</sup>

Ramusio's great collection of travel materials sought to include all past and present literature on voyages of discovery. An earlier, better, and more extensive presentation than that later offered by Richard Hakluyt to the English, the *Navigazioni e viaggi* constituted the first such collection of historical documents; it represented the culmination of the energies, enterprise, and learning of its accomplished editor, Ramusio. A humanist scholar with pronounced gifts in the study of the classics and especially geography, Ramusio advised such aristocratic eminences as Bembo and Fracastoro on matters of classical scholarship. He did the same for the Aldine press down to 1534 and then for that of Giunti in following years. From 1515 he served as secretary to the Venetian Senate, and after 7 July 1553 as secretary to the all important Council of Ten. In 1534–38, strongly affected by the presence of Oviedo and building upon the initial translations afforded by the now deceased Navagero, Ramusio began compiling the *Navi-*

<sup>1</sup> On the general condition of map production in the early sixteenth century, see L. Bagrow, "A Page from the History of the Distribution of Maps," *Imago mundi* 5 (1948): 53–62, especially 60–61; R. V. Tooley, "Maps in Italian Atlases of the Sixteenth Century," *Imago mundi* 3 (1964): 12–47, especially 12–13.

<sup>2</sup> On the importance of Gastaldi and the scope of his work, see Robert W. Karrow, Jr., *Mapmakers of the Sixteenth Century and Their Maps* (Chicago, 1993), pp. 216–49, especially 216, 226–27, 229.

<sup>3</sup> For Ramusio in general, but with particular reference to his social context and network of leading associates, see Massimo Donattini, "Giovanni Battista Ramusio e le sue *Navigazioni*. Appunti per una biografia," *Critica storica* 17 (1980): 55–100. For a useful biographical sketch of Ramusio, see George B. Parks, "Ramusio's Literary History," *Studies in Philology* 52 (1955): 127–48. For the most recent work on Ramusio, see the introductions and annotations of Marica Milanesi in her definitive edition of the *Navigazioni e viaggi*, 6 vols. (Turin, 1978–88); see also Milanesi, *Tolomeo sostituito. Studi di storia delle conoscenze geografiche nel XVI secolo* (Milan, 1984).

*gazoni*. His work presented for the first time a general synthesis of the experiences that had recently transformed the contours and dimensions of the earth.<sup>4</sup> Composed in the vernacular and organized spatially rather than chronologically, the work had a somewhat disjointed production: the first of three volumes, devoted to the Portuguese enterprise in Africa and in the Indian Ocean, appeared in 1550; the third volume, devoted to the Spanish conquests in South and Central America, appeared in 1556; the second volume, largely devoted to the French voyages in North America, appeared posthumously in 1559, two years after Ramusio's death.<sup>5</sup>

In 1563, when Ramusio's collaborator and printer Tommaso Giunti came to publish the second edition of volume 1, he included a prefatory letter detailing the vicissitudes that explained the delays in the publication, among them the death of his great friend Ramusio. In the course of his reflections he made a striking pronouncement worthy of some attention: in acclaiming the geographical knowledge of his day, which was unknown to the ancients, he stated that "it is clearly able to be understood that this entire earthly globe is marvelously inhabited, nor is there any part of it empty, neither by heat nor by cold deprived of inhabitants."<sup>6</sup>

The subject of the present article is the apparently modest task of trying to pick up the implications of this confident statement. Most immediately in the larger context of sixteenth-century thought, the following resonances of possible meaning present themselves from this celebratory exclamation: (1) that all the world is sufficiently temperate for sustaining human life; (2) that people know this and presumably may act upon it; (3) that all the world has become accessible to man by means of navigation and cartography; (4) that God's creation is glorified as something that has been made, according to Copernicus, on our account, for us (*propter nos*, for us Europeans?); (5) that a totally humanized (Europeanized?) world is here celebrated.<sup>7</sup>

While such immense issues redefining the *oikoumene* lurk on the sidelines, prepared to assert their claims, let us pursue a narrower analysis, addressing Ramusio and Giunti's remarkable publication and the

<sup>4</sup> Donattini, "Ramusio," pp. 81–83, 98; Parks, "History," pp. 129–38.

<sup>5</sup> Donattini, "Ramusio," pp. 58, 99.

<sup>6</sup> Ramusio, *Navigazioni e viaggi*, 1:8: "onde si può chiaramente comprendere che d'ogni intorno questo globo della terra è maravigliosamente abitato, né vi è parte alcuna vacua, né per caldo o gielo priva d'abitatori."

<sup>7</sup> For some interesting elaborations upon the theme of the Copernican *propter nos*, quite apart from the study of Ramusio itself, see Sylvia Wynter, "Columbus and the Poetics of the *Propter Nos*," *Annals of Scholarship* 8 (1991): 251–86.

prefatory letters of intent in the context of geographical knowledge at that time. Such a review reveals that the statement was somewhat premature and anticipatory so far as the experience of current exploration allowed. Exploration in their day had only provided sufficient evidence to allow one safely to assume that the Arctic was habitable; the Antarctic remained *terra australis incognita* far into the seventeenth century and even into the twentieth. Yet if America presented an epistemological and cognitive problem of the first magnitude, it was not to be resolved solely by the corrosive of Experience upon the solid block of Authority and the accumulation of navigational penetrations and cartographic precisions. Supplementing experience and emerging in the prefatory letters of Ramusio himself obtrudes a pervasive conviction based upon the deductive reasoning of Platonism: that God in his infinite potentiality had created a *plenum* that disallows any exceptional developments, making impossible any voids—metaphysical, biological, or anthropological. Essentially Brunian, this philosophical-religious assumption of a pervasive rationality completed a still experientially, empirically incomplete realization regarding the earth's total habitability in 1563.

The purpose of the present article is to address a subject that has apparently never received any sustained consideration and review in studies of the Age of Discoveries.<sup>8</sup> For whatever actual lands were discovered, the discovery that they were populated proved to be of decisive importance. This article seeks to analyze the construction of the idea of the earth's total habitability and its significance for Renaissance Europe.

The origins of Columbus's "Enterprise of the Indies" can be seen emerging in the margins of the admiral's copy of Pierre d'Ailly's *Imago mundi* (1410). In chapter 8 of that work the learned cardinal turned to the question of the extent (*quantitate*) of the habitable earth. The world that he had inherited had been perceived as spherical ever since Pythagoras, and its habitable part had been confined to something more than the *orbis terrarum*, the lands around the Mediterranean. Herodotus had introduced the significant term *oikoumene*, "ecumene" or "inhabited earth," which through the intercommunication of its inhabitants imparted the sense of "known world" or "familiar world."

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<sup>8</sup> The one possible exception is the comprehensive study of Giuliano Gliozzi, *Adamo e il nuovo mondo. La nascita dell'antropologia come ideologia coloniale dalle genealogie bibliche alle teorie razziali, 1500–1700* (Florence, 1977), which, though it exhaustively analyzes the manifestations of habitability and their implications, does not address the issue itself.

Herodotus had also gone on to question the popular Homeric notion of a circumambulate boundless ocean penning in this tiny world. In effect Herodotus's criticism opened up the ecumene from its oceanic confinement and surrounded it with "distant lands," for the present only dimly perceived but presumably capable of becoming to some degree "known."<sup>9</sup> The resulting T-O map, in which the ecumene, represented by Asia at the top, Europe and Africa, left and right, was divided by the shaft of the Mediterranean, and entirely bounded by ocean, constituted one of the two fundamental cartographic types of the medieval inheritance. The second was the zonal type, accenting climatic differentiation.<sup>10</sup>

Beginning with Aristotle and advanced by Eratosthenes in the third century B.C., Greek speculation hazarded a spherical earth divided into climatic bands, which now posited not only an ecumene in the north, constituted by Europe, Africa, and Asia, situated in the Tropic of Cancer, but also its possible mirror image in a matching ecumene stretching from the Tropic of Capricorn to the Antarctic, the two being forever separated either by an impassable torrid zone or by a vast scheme of oceanic barriers. Crates of Mallos and the Stoics reconstituted this picture into four island continents inhabited, yet lacking any communication among them.<sup>11</sup> Several major developments followed. First came the antipodes, the opposite or upside-down people revealed to Scipio Aemilianus when Cicero sent the eminent Roman general skyward, allowing him to see now four inhabited portions of the earth widely separated by ocean and without communication among the constituent parts. Pliny affirmed the possibility of the southern zone being actually inhabited. But for those of the ancients fixing upon the ecumene's oceanic rather than thermal confinement—Horace among others in the first century B.C.—it occurred as a poetic conceit that possibly new worlds of the west could be reached only by oceanic navigation. Horace endows navigation with moral import:

<sup>9</sup> James S. Romm, *The Edges of the Earth in Ancient Thought: Geography, Exploration and Fiction* (Princeton, 1992), pp. 37–38.

<sup>10</sup> Jörg-Geerd Arentzen, *Imago Mundi Cartographica: Studien zur Bildlichkeit mittelalterlicher Welt- und Ökumenekarten unter besonderer Berücksichtigung des Zusammenwirkens von Text und Bild* (Munich, 1984), pp. 320–21. On the iconic, nonrepresentational nature of the T-O map and how its misreading by the nineteenth century helped to contribute to the belief that the Middle Ages held to a flat-earth notion of the world, see the interesting analysis by Lesley B. Cormack, "Flat Earth or Round Sphere: Misconceptions of the Earth and the Fifteenth-Century Transformation of the World," *Ecumene* 1 (1995): 363–85. It is unfortunate that this spook is still pervasive in our schools and annually joins in the celebration of Columbus Day through the media.

<sup>11</sup> Romm, *Edges*, pp. 128–31.

"For no purpose did a wise god divide the lands with estranging ocean, if our impious ships nevertheless race across waters that should be left untouched." And for Seneca the Younger, gazing upon Ocean, it presented both a moral threat and an intellectual challenge.<sup>12</sup>

In the twilight of the Roman empire in the West Macrobius returned to Scipio's global vision revealed in Cicero's *De re publica* (VI.19–20) and significantly reworked its import. While Cicero's presentation of the constrictions and disconnectedness of the four continental patches (*maculas*) on the earth's surface served the younger Scipio's argument to his host, King Masinissa, as to the constrained resonance of the elder Scipio's fame, indeed its parochial confinement, Macrobius, impressed with the same continental disconnections and isolation, reset the argument in another framework. In an interesting appeal to reason that allows the other three patches to be understood as inhabited similarly to our own continental patch, Macrobius laments not the comparatively trivial issue of one man's fame being muted, but rather the veritable separation among the types of humans, the four world peoples, in that they lack the capacity for continuous, reciprocal communication and exchange (*ut a se interrupti nullam commeandi ad se habeant facultatem*).<sup>13</sup> Such partitioned confinement would appear to be the doom of the human condition.

<sup>12</sup> Romm, *Edges*, pp. 164–71; W. G. L. Randles, "Classical Models of World Geography and Their Transformation Following the Discovery of America," in *The Classical Tradition and the Americas*, vol. 1: *European Images of the Americas and the Classical Tradition*, ed. Wolfgang Haase and Meyer Reinhold (Berlin, 1994), pp. 5–76, especially 10–11 (hereafter cited as CTA).

<sup>13</sup> Cicero, *De re publica* VI.xix (Loeb edition, pp. 272–74); cf. Macrobius, *Commentarium in Somnium Scipionis libri duo* II.5 (ed. Luigi Scarpa [Padua, 1981], pp. 284–86): "Non enim adiceret: in ipsis maculis vastas solitudines interiectas, si ipsas solitudines diceret inter quas certae partes macularum instar haberentur, sed quia maculas dicit has quattuor quas in duobus Terrae hemisphaeriis binas esse ratio monstravit, bene adiecit: *interiectas solitudines*. Nam sicut pars quae habitatur a nobis multa solitudinum interiectione distinguitur, credendum est in illis quoque tribus aliis habitationibus similes esse inter deserta et culta disinctiones. Sed et quattuor habitationum incolas et relatione situs et ipsa quoque standi qualitate depinxit. Primum enim ait alios praeter nos ita incolere Terram ut a se interrupti nullam commeandi ad se habeant facultatem et verba ipsa declarant non eum de uno hominum genere loqui in hac superficiei a nobis solius torridae interiectione diviso; sic enim magis diceret: *ita interruptos ut nihil ab illis ad vos manare possit*, sed dicendo: *ita interruptos ut nihil inter ipsos ab aliis ad alios manare possit*, qualiter inter se illa hominum genera sint divisa significat. Quod autem vere ad nostram partem referretur, adiecit dicendo de illis qui et a nobis et a se in vicem divisi sunt: partim obliquos, partim transversos, *partim etiam adversos stare nobis*. Interruptio ergo non unius generis a nobis sed omnium generum a se divisorum refertur, quae ita distinguenda est. . . . Et quia non est una omnium adfinis continuatio sed interiectae sunt solitudines ex calore vel frigore mutuum negantibus commeatum, has Terrae partes, quae a quattuor hominum generibus incoluntur, *maculas* habitationum vocavit."

As a late medieval Christian, d'Ailly inherited another dimension to this geographic-ethnographic puzzle, raising the issues to a new level of complexity: namely, the Adamic-monogenetic origin of the entire human race. Indeed, the monogenetic issue had been secured by an array of Latin church fathers—Lactantius, Augustine, Isidore of Seville, and Bede—rejecting the possibility of the antipodes being inhabited. With sovereign authority Augustine himself had weighed in for the Latin church regarding the matter, and in the *City of God* (XVI.8–9), while firmly denying this other area of habitability and its Upside-down People, the great African doctor went on to admit that the human race does have monsters or physical types, but maintained that such births are not to be considered as subhuman but rather as so many occasions to extend to them our human sympathy and tolerance. Thus, for Augustine and Isidore, monstrous or divergent types—carefully, almost lovingly set forth in the *City of God* (XVI.8)—came to represent so many ornaments of God's creation and so many opportunities for relaxed, respectful, charitable treatment by others. Nevertheless the medieval church here walked the tightrope of a paradox: the affirmation of a single, common human descent required the denial of an inaccessible yet habitable antipodes, while at the same time including its imagined monstrous types within the long-known ecumene. To put it another way, charity and human tolerance required the answer to the question about the monsters to be the opposite of that regarding an inhabited antipodes. Once both questions could be answered affirmatively, the floodgates of potential intolerance and racism would be opened, sweeping away the comfortable, generous myth of a common human origin and dissolving the explicitly Christian arguments of human brotherhood insofar as they rested upon the monogenetic-Adamic origin of mankind. Fortunately for the church, however, only one direct challenge occurred before Columbus's landfall. In 748 Vergilius of Salzburg advanced the idea of a populated antipodes. In Augustinian panoply Pope Zachary easily squelched this local affair. A victory for the church and for authority to the detriment of scientific accuracy? Certainly—but also a victory for charity and for the party of humanity. Next time, in an age of greater communication by both sail and print, the outcome would be different.<sup>14</sup>

Having rehearsed the geographical-ethnographic tradition and its

<sup>14</sup> Valerie I. J. Flint, "Monsters and the Antipodes in the Early Middle Ages and Enlightenment," *Viator* 15 (1984): 65–80. On the polygenetic view of human origins and racist theories emerging in the course of the seventeenth century, see Giuliano Gliozzi, *Adamo*, pp. 331–56, 514–621.



implications received by the learned of d'Ailly's generation, we may return to the text and margins of the *Imago mundi*. Following, virtually copying, Roger Bacon's earlier *Opus maius*, the cardinal sees the issue of habitability to be a function of sun and ocean, heat and water. He refers to Ptolemy, who with respect to water in one instance gives one-sixth of the earth's surface to be habitable, in another one-fourth, extending the ecumene lengthwise from east to west above the equator. Deploying classical authorities, d'Ailly argues for the modest distance between the coast of Spain and the eastern coast of India. He advances Esdras 4 that six-sevenths of the earth is inhabited and the rest water. He concludes that the confined world of Ptolemy falls short of what is possibly inhabited.<sup>15</sup>

Excitedly, Columbus crams into the margins of d'Ailly's work the story of how he himself witnessed the return and report of Bartolomeu Dias to the king of Portugal, regarding Dias's having pressed 45° (*sic*) south beyond the equator and rounded a promontory that he had called the Cape of Good Hope. Columbus proceeds to deploy, weigh, and review the authorities mentioned in an anxious effort to expand, where possible, the land surface of the earth, stretch Asia toward Europe and concur with the cardinal that water does not cover three-quarters of the earth's surface. He emerges reassured that the sea is quite navigable everywhere (*tot navigabilem*) and that extreme heat does not prevent passage.<sup>16</sup> The problem of habitability involved at all times the problem of accessibility. Yet before the enterprise could occur, the relatively easy accessibility of communicating continents did not in itself suffice; there also had to be confidence in the uniform continuous surface of a terraqueous globe.

D'Ailly composed his *Imago mundi* in 1410. Four years before, Claudius Ptolemy's *Geography*, recovered by the Byzantines in 1295, had been rendered into Latin. Although its *editio princeps* waited until 1475 and even then lacked any maps, a new conception of the globe began to move in step with the empirical achievements of Portuguese navigation. That Ptolemy could cast a grid of mathematical coordinates over a partly spherical projection of an expanded *oikoumene* both presumed and posited a continuous and essentially uniform surface to the globe. Ptolemy effectively broke with the scholastic Aristotelian tradition of the separate spheres of the water and the earth, which reinforced the view of a habitable land mass surrounded by the great river Ocean; instead, water and earth made up a single terraque-

<sup>15</sup> Pierre d'Ailly, *Imago mundi*, ed. Edmond Buron, 3 vols. (Paris, 1930–31), 1:206–15.

<sup>16</sup> D'Ailly, *Imago mundi*, 1:206–208.

ous globe with a common center of magnitude. This conceptual breakthrough would be of decisive importance for Copernicus in book 1, chapter 3 of his *De revolutionibus*, entitled “How Earth Together with Water Forms One Globe.” In that chapter Copernicus renders the earthly globe into a planet—integral, compact, perfectly spherical, capable of hurtling through space on its own.<sup>17</sup>

But before such an application to astronomy, there developed among some mathematically and geographically inclined scholars, headed by Paolo Toscanelli in Florence, an intellectual momentum that made that group hardly one step behind ongoing Portuguese discovery. Toscanelli presupposed an ocean as an integral part of the earth, inviting navigation, which made all the earth’s land formations accessible to man. When Gemistos Pletho, the great Byzantine Platonist, joined Toscanelli’s group in 1439, he intruded his own advocacy of Strabo into the heavily weighted Ptolemaic discussion, thereby undermining Ptolemy’s idea of the Indian Ocean as a landlocked sea. In the last years of his life, in a letter of 25 June 1474 to the canon of Lisbon—a copy of which would soon embolden Columbus—Toscanelli, operating within the mathematicized space of Ptolemy’s grid, plotted on his own map from Lisbon twenty-six uniform spaces of 250 miles each directly west from Lisbon to Hangzhou. Indeed, Ocean, previously seen as an impassable barrier, by the last third of the fifteenth century had become, at least in Florence, an intercontinental highway for those impious ships. More than one mind at this time saw a fourth continent as an obvious discovery waiting to be made.<sup>18</sup> The veritable opening up of the world to general accessibility would raise for a still Christian civilization the issue of rapid evangelization and universal redemption of all Antipodeans, Antoecians, and whatever else, as the oceanic barriers of the Cratesian-Macrobian world collapsed before superior European theory and navigation.

Even before the news of Columbus’s landfall resounded in Europe, Latin Christendom seems to have lost its diffidence regarding the antipodes and the problems created by their existence. Impelled by a new confidence constituted by curiosity, greed, and the evidence of a superior technology, Europe seems to have embarked on a sudden

<sup>17</sup> Thomas Goldstein, “The Renaissance Concept of the Earth in Its Influence upon Copernicus,” *Terrae incognitae* 4 (1972): 19–51, especially 36–40.

<sup>18</sup> Thomas Goldstein, “Geography in Fifteenth-Century Florence,” in *Merchants and Scholars: Essays in the History of Exploration and Trade*, ed. John Parker (Minneapolis, 1965), pp. 9–32, especially 18–25; Gabriella Moretti, “The Other World and the ‘Antipodes’: The Myth of the Unknown Countries between Antiquity and the Renaissance,” in *CTA*, 1:241–84, especially 271–75.

binge regarding the habitability of still-to-be-discovered *terra firma*. In the first construction of a globe in 1492, the Nuremberg geographer in Lisbon, Martin Behaim, depicts a world exploding beyond its Ptolemaic confines; in the inscription on this globe he describes the polar region, understood as Iceland, Norway, and Russia, as now being known to us, annually visited and attainable by ship like all the rest of the world.<sup>19</sup> In the following year, but before learning of Columbus's achievement, Hieronymus Münzer writes to the king of Portugal asking him to send his fellow Nuremberger Behaim on a venture similar to that just completed by the Genoan. In maintaining that "the habitable East is very near the habitable West" and that the king should make them known to each other, he mocks the authority of the Islamic cosmographer Alfraganus who claimed that only one-fourth of the earth was above the sea, "for in matters referring to the habitable earth, we should believe experience and trustworthy accounts rather than fantastical opinion."<sup>20</sup>

At every stage the issue of habitability involved that of accessibility, dragging with it the task of rapidly expanding and redefining a Christian ecumene that affirmed the universal redemption of the human race and effectively extended it under forced conditions to the globe. The growing recognition of the earth's universal habitability could only make more acute the problem of squaring the Adamic origin of all mankind with the swelling contours and complexity of its membership. Scraps of evidence from the early fourteenth century, especially on the part of missionaries sailing to and beyond the latitude of Madagascar, had been accumulating as to actual inhabitants of the antipodes. In an extended letter, dated 26 July 1330, to Philip VI of France, the Dominican William Adam, traveling toward the south

<sup>19</sup> E. G. Ravenstein, *Martin Behaim: His Life and His Globe* (London, 1908), p. 71: "der weiten orth der welt gegen mitternacht end tramontana über die schrift ptolemei eysland norwegen und reussen uns auch jetzt kundig ist und man jarlich dahin schiffht daran doch niemand zweifeln soll, wiewohl die welt simpel ist das man just ublich mit schiffen fahren oder gehen mag wie hie steht."

<sup>20</sup> Ravenstein, *Martin Behaim*, p. 113, where the English translation of this letter, dated 14 July 1493, figures as document IX of the appendix. Regarding Muslim thoughts on the problem of the earth's habitability, Ibn Khaldun in his *Prolegomena* betrays some uncertainty. He estimates that the dry part of the earth covers half its total surface and the inhabited part about one-quarter of this amount, the southern part having the greatest wastes. While not excluding the possibility of occasional habitation in the torrid zone, he considers that the excessive heat makes the existence of a human population there highly unlikely. Interestingly enough, however, he observes that Ibn Rushd (Averroes) believes this torrid zone to be temperate and the regions lying south of it similar to those in the north and thus likewise inhabited. See *An Arab Philosophy of History*, tran. and ed. Charles Issawi (Princeton, 1950), pp. 38–40.

pole, affirmed at one point the reality of the antipodes and stated that “we Christians are not the tenth part, not even the twentieth part [of the population of our world].” He hastened to add that although crammed into a small corner of that world, Christians were more than compensated in terms of divine grace, the operation of miracles, natural prudence, civility, military talent, good government, and *justam potentiam dominandi* [the just exercise of ruling].<sup>21</sup>

Yet only with the discovery of the West Indies did the issue of the earth’s exploding habitation become explicit. Francesco Guicciardini, the most sophisticated historian of Renaissance Europe, reflected upon the meaning of populated new continents in the course of writing book 6 of his *Storia d’Italia* (1537–40). Not only did the discoveries demonstrate that the ancients had been wrong in claiming three of the five zones to be uninhabitable, thereby delivering a body blow to the authority of classical antiquity for his humanist contemporaries, but more alarming still, the authority of Scripture, or at least its traditional interpretation, now came into question, regarding the message of the apostles having reached the corners of the earth. For it could not be credited that faith in Christ had existed in these newly discovered lands before present times nor that so vast a part of the world had ever before been discovered by men from our hemisphere.<sup>22</sup> The abrupt

<sup>21</sup> See *A Source Book in Geography*, ed. George Kish (Cambridge, Mass., 1978), pp. 249–50, which refers to C. R. Beazley’s edition of the remarkable “Directorium ad faciendum passagium transmarinum,” *American Historical Review* 12 (1907): 810–57, especially 821–22, and 13 (1908): 66–115. As my own translation of the critical passage highlights the point being made by Adam, I present the Latin original here: “Tertia quod non est friuolum neque falsum Antipodes assignare. Quarta, quae magis venit ad propositum nostrum, quod nos, qui veri sumus Christiani, non dicam decima, sed et vicesima pars non sumus. Tamen licet ita pauci simus et, ut praedicatur, quasi in angulo permodico esartati, hoc sentio hoc assero ut expertus, quod si ista nostra parua particula in una parte staterae et totus alius magnus mundus in parte altera poneret[ur], haec sicut aurum inter metalla grauior viribus et virtutibus appareret, non solum in doctrinae veritate et fidei puritate, non solum in largitione suscepta diuinae gratiae ac donorum et euidenti operatione miraculorum, quibus exclusis gentibus uniuersis quae omnibus istis carent, nos Deo speciali peculio gratos efficit et ostendit sed quantum ad prudentiam naturalem et etiam acquisitam, quantum, ad mores domesticos et ciuiles, quantum ad modum viuendi ordinatum, magnificum, et honestum, quantum ad diuitias, et maxime quoad usum qui ipsas reddit licitas atque bonas, quantum ad nobilem et prudentem usum armorum et bellandi strenuam probitatem, quantum etiam ad bonum regimen et justam potentiam dominandi, et breuiter quantum ad omnia quae conjunctini hominem honestant, nobilitant, et exornant, omnes praecellimus nationes.”

<sup>22</sup> For the passage in Guicciardini’s *Storia d’Italia*, I am indebted to my colleague Kenneth R. Bartlett, whose outstanding paper “Burckhardt’s Myopia: The Renaissance, Humanism, and the World,” delivered at the Fourth International Conference of the World History Association, quoted at length the passage found in S. Alexander’s translation, *History of Italy* (New York, 1965), p. 182. I wish to thank him for bringing this passage to my attention.

expansion of the scope of the great commission, and the need to evangelize all mankind before the world's end, placed a heavy burden on the missionary effort of the Catholic religious orders as they scrambled to effect this goal in what appeared to many as an eschatological twilight.

In the holocaust of new peoples encountered, plagued, exploited, and massacred, Rome sought to give at least formal recognition to their humanity as well as to their Adamic origin. As an explicit response of the papacy to the outrageous subjection of the Indians, the resulting bull, *Veritas ipsa* (*Sublimis Deus*), sought to cast a protective net over all the newly discovered peoples—western, southern, and others (*occidentales et meridionales Indos et alias gentes*)—coming to papal attention at this time. Rather than brute animals (*bruta animalia*) fit for servitude, they appeared as true men (*veros homines*) capable of being won to the Christian faith. To perceive them as sheep of the Lord, existing beyond the sheepfold and to be diligently incorporated into that fold (*oves gregis sui nobis commissas, quae extra eius ovile sunt, ad ipsum ovile toto nixu exquirimus*), provided the expectable but still simplistic answer to one of the supreme problems facing early modern Europe.<sup>23</sup> As a banner of Christian aspiration it was already long overdue; as an effective measure of intercession it never emerged. By its apparent intrusion upon the jurisdiction of the Council of the Indies, the papal bull suffered prompt revocation.<sup>24</sup> According to the emerging regalism of European states, Spanish Catholicism rather than its Roman papal counterpart would prevail in the Indies. If cheated in fact, however, Rome in principle would preserve and expand its own claims to universality, now conceived on a global scale in a post-Cratesian and soon post-Ptolemaic earth.

In the first flush of sixteenth-century discoveries was there ever a moment when there existed a conception, other than an ecclesiastical one, of the meaning of *ecumene*? In successive editions of Ptolemy's *Geography* after 1475, the latest geographic additions placed a strain upon the traditional framework and its *terra habitabilis*, or "ecumene." In the second Roman edition of 1508 the editor finds himself compelled to admit that besides the ecumene of Ptolemy there is a new one "deduced from more recent observations" (*ex recentioribus confecta observationibus*). With Pirckheimer's new Latin rendering and Eras-

<sup>23</sup> *America pontificia primi saeculi evangelizationis, 1493–1592*, ed. Josef Metzler, 2 vols. (Vatican City, 1991), 1:365.

<sup>24</sup> Lewis Hanke, "Pope Paul III and the American Indian," *Harvard Theological Review* 30 (1937): 65–102, especially 85–91.

mus's Basel edition of 1533, the work attained the status of a classic, a fixed monument, faced with displacement by accumulated discoveries. In fact, the Renaissance as proponent of experience and advocate of classical authority achieved the supersession of Ptolemy's *Geography*. From Venice in 1561 Girolamo Ruscelli tells his readers that the present version of Ptolemy is the most perfect possible, but the world has changed so much from what existed in his time that the greater part of particular places described by him has been as it were annulled (*ad esser come annullata*).<sup>25</sup> The total ecclesiasticization of the meaning of *ecumene*, to the apparent obliteration of any possible secular understanding of the term emergent in the new worlds encountered by Europeans, reflects the effective alignment of Rome's purposes, evinced in global missionary activities, yet channeled through the Spanish *patronato real* and its Portuguese counterpart, the *padroado real*.

For a moment we may pause to see the cartographic culture of Venice that had come to focus upon the publication of Ramusio's *Navigazioni e viaggi* as possibly adumbrating a potentially secular understanding of the ecumene. The awareness of not just new lands but also inhabited lands, new peoples on a global stage fashioned by a Platonized God, Creator rather than Redeemer, provides a brief moment when such an ecumene of many diverse peoples is perceived. Unquestionably, the total import of Ramusio's volumes served to challenge the Ptolemaic view of the earth's surface, displace it, and present "an image of the earth organized according to homogeneous areas of human occupation" now firmly linked, rather than being walled off, by areas of navigable ocean.<sup>26</sup> Is something else being said here? As one historian of Renaissance geography has observed: "In all ways it seems that the revelation of the habitability of the tropics and the antipodes had been more decisive for contemporaries than the discovery of America to which we attach retrospectively so much importance."<sup>27</sup>

In an earlier work, the "Discorso sulle spazie," written in 1547, Ramusio claimed that one of the most admirable and stupendous acts "that a great prince could perform would be to get the people [*uomini*] of our hemisphere to come to know those of the opposite hemisphere," thereby once again surpassing the ancients.<sup>28</sup> He continued: "This could easily be done by dispatching into diverse places of that hemi-

<sup>25</sup> Milanese, *Tolomeo*, pp. 13–21.

<sup>26</sup> Milanese, *Tolomeo*, p. 54.

<sup>27</sup> N. Broc, *La géographie de la Renaissance* (Paris, 1980), pp. 237–38.

<sup>28</sup> Milanese, *Tolomeo*, p. 219.

sphere colonies for living there as the Romans did in newly acquired provinces, whereby little by little those parts would come to be opened up, cultivating and introducing there civilization and thence to have preached by worthy men the faith of our Lord Jesus Christ; and for domesticating them more easily [such princes] would cause to go every year ships loaded with grain, wine, spices, sugar, and other sorts of merchandise from these our parts."<sup>29</sup> Thus this interchange of peoples would be a European initiative characterized by settlement, cultural expansion, evangelization, and commerce, with religion figuring as one among several civilizing factors.

At around the same time, in 1547–48, Ramusio entered into discussion with his close friend Gerolamo Fracastoro regarding the reason for the periodic increase of the Nile. At one point in his "Discorso," having disposed of an ancient classical argument that depended on the middle third of the earth being uninhabitable, Ramusio sweeps Fracastoro into his belief, "contrary to the ancients and their erroneous imagination concerning this globe of earth, which is now clearly known to be all inhabited, nor is there any part either hot or cold, discounting deserts and oceans, that is not full of men and animals, that everyone exists there as in a temperate region. I say temperate according to the constitution given to them by nature."<sup>30</sup>

When nine years later, in 1556, Ramusio came to publish the third volume of his *Navigazioni*, he began with a very revealing "Discorso" addressed again to his close friend Fracastoro.<sup>31</sup> After drawing extensively on the *Timaues*, he cuts through the philosophic debate on the lost Atlantis to advance a crucial argument on the basis of the Platonic principles of plenitude and sufficient reason:

To Plato—having to write regarding the structure of the universe [*fabbrica del mondo*] which he believed to have been made for human

<sup>29</sup> Ramusio, *Navigazioni*, 2:980–81: "La qual cosa potriano fare facilmente mandando in diversi luoghi del detto emispero colonie ad abitarvi, nel modo che faceano i Romani nelle provincie di nuovo acquistate, le quali a poco a poco andassero scoprendo quelle parti, coltivandole e introducendovi la civiltà, e da valenti uomini poi farvi predicar la fede di nostro Signor Giesù Cristo; e per domesticarli più facilmente vi facessero andar ogni anno delle navi cariche di farine, vini, spezie, zucchini e altre sorti di mercanzie di queste nostre parti."

<sup>30</sup> Ramusio, *Navigazioni*, 2:404–405: "per dir liberamente, tutti li moti dei cieli, con molte altre belle parti di filosofia, contra la oppenione degli antichi, è ben conveniente che anche dagli occhi ella ne debbia levar via la offuscatione di tante erronee imaginazioni che li detti fecero sopra questo globo della terra, la qual si sa ora chiaramente che è tutta abitata, né vi è parte alcuna o calda o fredda, se non sono solitudini e mari, che non sia piena di uomini e animali, che vi stanno ciascuno come in region temperata, dico temperata alla complessione data loro dalla natura."

<sup>31</sup> Milanese, *Tolomeo*, p. 58.

arrangement so that man, divine creature [*animal divino*], seeing such ornaments of stars in the heavens and the motion of so stupendous and marvelous luminaries, would know his maker and knowing him would continually praise him—to [Plato] it appeared to be a thing far beyond reason that two parts of this order would be inhabited and the other part deprived of men; and likewise the sun and the stars with their splendor would make half the course vainly and fruitlessly, leaving unilluminated seas and places deserted and deprived of animate creatures. . . . Rather the sun makes its course with such order that the inhabitants [at the north pole] live not as moles buried under the earth but as other creatures who are upon this terrestrial globe, illuminated so that they are able most profitably to maintain and provide for their livelihood. . . . Since rationally it is not able to be believed that the maker of such a beautiful and perfect structure as are the heavens, the sun, and the moon had not wanted that, this having been made with such stupendous and marvelous order, the sun illuminate but a fraction of this globe which they call earth and the rest of its course be in vain over seas, parts with diverse animals and upon the other with man, as patron and lord of all, for whose purpose it has been constructed, having endowed him with that divine and celestial part which is the soul and consequently has disposed and distributed in each place the necessary gifts for living, more or less, according to His divine providence and pleasure. . . . Now, by the matter stated above I think there can be no longer any doubt that beneath the equator and below both poles there is the same multitude of inhabitants that there are in all the other parts of the world . . . [rather than these areas] according to all the ancients . . . being uninhabited, shapeless, and wasted by extreme heat or frost.<sup>32</sup>

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<sup>32</sup> Ramusio, *Navigazioni*, 5:6–9: “Ma la verità è questa, che avendo Platone a scriver della fabrica del mondo, il qual teneva esser stato fatto per collocarvi l’uomo, animal divino, acciocché, vedendo egli tanti ornamenti di stelle nel cielo e il moto di così stupendi e maravigliosi luminari, conoscesse il suo fattore e conoscendolo di continuo lo laudasse, gli pareva cosa pur troppo fuor di ragione che due parti d’esso fossero abitate e l’altre prive d’uomini: e’l sole e le stelle con loro splendore facessero la metà del corso indarno e senza frutto non lucendo se non al mare e a’luoghi deserti e privi d’animali. . . . Ma il sole fa il suo corso con tal ordine che gli abitanti nella detta parte non come talpe vivono sepolti sotto terra, ma come l’altre creature che sono sopra questo globo terreno vengono illuminate, sì che possono benissimo sostenersi e riparar la lor vita. . . . Percioché ragionevolmente non è da credere che il fattore di così bella e perfetta fabrica come sono i cieli, il sole e la luna, non abbia voluto che, essendo ella fatta con tanto stupendo e maraviglioso ordine, il sole non illumini se non una particella di questo globo che chiamano terra, e il resto del suo corso sia in vano sopra mari, nevi e ghiacci; ma l’ha coperta in ciascuna sua parte di diversi animali, e sopra gli altri dell’uomo, come padrone e signor di tutti, per cagion del quale ella era stata fabricata, avendolo dotato di quella divina e celeste parte che è l’anima: e appresso ha disposti e in ciascun luogo compartiti i doni necessari al vivere, più e meno, secondo che alla divina sua provvidenza è piaciuto. . . . Ora, per le cose dette di sopra, penso che non ci sia più dubbio alcuno che sotto l’equinoziale e sotto ambidue i poli non si trovi la medesima multi-



Philosophically, Ramusio's remarkable argument for the earth's total habitability, by appealing to the principle of plenitude, reflects the continuity and pervasiveness of a Platonism stretching from Plotinus to Leibniz. The assumed infinity of God's productive potency, arguing for the necessary innumerability of its actual effects, moves in the Renaissance from the better known level of astronomy to that of biology and geography.<sup>33</sup> More immediately, his argument reflects the contemporary mid-sixteenth-century Venetian culture, heavily saturated with Platonism and Hermetism.<sup>34</sup> Here that great paladin of Renaissance Platonism and oracle of literary culture, Pietro Bembo, had specifically addressed the question. In the sixth book of his *Historia veneta*, composed after 1530 but first published in 1551, he had fixed upon the discovery of this other world of new regions and hitherto concealed peoples, of islands and places inhabited by men, as the greatest and most beautiful event, surpassing anything yet seen and to be reported.<sup>35</sup> Assuming the rational plenitude of a supreme architect, Bembo attacked the classical notion that only two of the five climatic zones were habitable. He credits Columbus with an address to Ferdinand and Isabella in which he asserts the Macrobian urge: "It would be necessary [to believe] God to have been almost improvident in His having so constituted the universe [*mundum*] that by far the greater part of the earth on account of excessive intemperateness be devoid of humankind and of no human use. [In fact] the globe of the earth is of such a nature that to man has been given the capacity for going through all its parts—achieving their complete accessibility."<sup>36</sup>

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tudine degli abitanti che sono in tutte l'altre parti del mondo . . . quanto tutti gli antichi filosofi con le lor sapienze e gran speculazioni si siano ingannati, pensando che la fabrica di questo mondo . . . fosse la metà sotto il mare, difforme e guasta, e per il caldo e per il gielo inhabitata."

<sup>33</sup> On the idea of the plenitude in Platonism, see the classic study by Arthur O. Lovejoy, *The Great Chain of Being* (Cambridge, Mass., 1957), pp. 52, 111–12, 116.

<sup>34</sup> Denis Cosgrove, "Mapping New Worlds: Culture and Cartography in Sixteenth-Century Venice," *Imago mundi* 44 (1992): 65–89, especially 67, 75–81.

<sup>35</sup> Pietro Bembo, *Opere del Cardinale Pietro Bembo*, 4 vols. (Venice, 1729), 1:138: "novas regiones alterumque, prope acquiri orbem gentesque abditas atque sepositas celebrari. . . quod ejus rei omnium, quas ulla aetas unquam ab hominibus effectas vidit, maxime atque pulcherrimae fuerit initium."

<sup>36</sup> Bembo, *Opere*, 1:138: "improvidum, prope necesse esse haberi Deum, si ita mundum sit fabricatus ut longe major terrarum pars propter nimiam intemperiem hominibus vacua, nullum ex se se usum praebeat, globum esse terrae hunc ejusmodi, ut commeandi per omnes ejus partes facultas hominibus ne desit." The text provides both the Italian and the earlier Latin version of his history. Here *facultas commeandi*, expressed in the Italian by *il potere di lei gire e passare*, is reminiscent of Macrobius's statement quoted in note 13 above. Only in the course of making final revisions to this article for publication did I come upon the fine contribution of D. Perocco, "Un male non pensato": Pietro Bembo e la scoperta

The Venetian resort to the Platonic argument of a divine plenitude did not exhaust itself at mid-century with Ramusio and his circle. No less a mind than Giordano Bruno made it central to a philosophy that admitted no unique intrusions or special phenomena, but sang of the infinite power of the divine. In his treatise *On the Infinite Universe and World* (1584) he fiercely rejected the notion that divine power could remain idle or its infinite amplitude frustrated.<sup>37</sup> Although applied to infinite worlds rather than to mere continents as evidence of this earth's general habitability, Bruno's assertion reminds us of the astronomical reference of geography within the comprehensive field of cosmography, while at the same time giving extreme, radical, even heretical statement to the pervasive Platonism of the day.<sup>38</sup>

Venice's leadership in European cartography and the new science of geography, already evident from Ramusio's publications and the reputation of his close colleague, the cartographer Giacomo Gastaldi, the foremost Italian cartographer, received further expression toward the end of the century with the work of the geographers Girolamo Ruscelli and Gioseppe Rosaccio. At the outset of the *Descrittione della geografia universale* they present the traditional zonal view of the earth in order to emphasize how since 1492 it had become apparent that all parts of the earth are habitable, that new habitations are found in all parts, that the frigid polar zones are habitable by people, that the torrid zone is most inhabited, where rules a perpetual spring. Rather than God, now *la benigna Natura* does nothing by chance but provides all things, constituting them according to her own essential character (*la sua qualità*).<sup>39</sup>

The Venetian geographic program, which advanced the idea of the earth's total habitability, proceeded somewhat unevenly on two legs. The first was experience and the empirical—actual navigational en-

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dell'America," in *L'Impatto della scoperta dell'America nella cultura veneziana*, ed. Angela Caracciolo Aricò (Rome, 1990), pp. 279–93, especially 292, where she notes in passing the similarity to Lovejoy's later formulation. But Perocco attributes Bembo's insight and inspiration to "models of military allocution transmitted from classical historiography constituting the real filter of the oration," placed in Columbus's mouth. If so, and if Bembo is the source for this perception, it rapidly acquired Platonic (Lovejoyan) features, as it passed through the further filter of Venetian culture at this time.

<sup>37</sup> Dorothea Waley Singer, *Giordano Bruno: His Life and Thought* with annotated translation of *On the Infinite Universe and Worlds* (New York, 1950), p. 234 (Introductory Epistle), pp. 255–60 (First Dialogue).

<sup>38</sup> Lovejoy, *Great Chain*, pp. 111, 116–21.

<sup>39</sup> Gioseppe Rosaccio, *Descrittione della geografia universale, libro primo*, which constitutes a supplement to *Geografia di Claudio Tolomeo Alessandrino, tradotta di greco nell'idioma volgare italiano da Girolamo Ruscelli, et hora nuovamente ampliata da Gioseffo Rosaccio* (Venice, 1598), 4<sup>v</sup>. The double-orb map is on pp. 1<sup>v</sup>–2<sup>r</sup>.

counter with new lands and peoples. The second and apparently the more powerful was philosophical and rational in its belief in a divine Maker whose construction of the world disallowed any unique or special features but promoted a fullness of species in all places. The priority of the conceptual and perceptual over the empirical, a matter familiar enough to historians of science, here needs to be noted as it plays itself out in the sixteenth century's reshaping of geography. Twenty years before Columbus sailed to his momentous landfall, more than one Florentine had posited a fourth landmass out there.<sup>40</sup> Six years before Balboa got his knees wet, and thirteen before Magellan sailed through the straits named after him, the cartographer Martin Waldseemüller in landlocked Lorraine had already envisaged for the first time a vast ocean west of the emerging American continent. Similarly it was no *mathematicus* or "scientist" but rather a poet, Bruno, who first insisted upon the reality of an infinite universe. And with his poetic vision, it is Dante, surpassing Cicero, who provides us earthlings with a breathtaking perspective, six and a half centuries before the photograph taken by our astronauts, of "that threshing floor which makes us wax so fierce."<sup>41</sup>

Yet the empirical has the capacity for checking the perceptual, defining the possible, and rendering the actual reality of things. In short, it places salutary restraints upon the flights of the imagination and the urgings of philosophy. Thus, interwoven with his Platonic argument, Ramusio introduces the evidence provided by the archbishop of Upsala, Olaus Magnus, (1539) that Finland, Lapland, and the northernmost reaches of Sweden and Norway are all bubbling with people (*tutta abitata d'infiniti popoli*).<sup>42</sup> Ramusio's commitment to the extensive habitation of Christendom's northernmost reaches (*extrema Aquiloniae christianitatis plaga*) went even further.<sup>43</sup> Since 1539 he had been aware of materials, hitherto considered dubious, but now demonstrably genuine, pertaining to the enterprises of the Zen brothers, who had explored during 1394–1401 the mid-eastern and mid-southern coast of Greenland and then south to Nova Scotia. By letter Fracastoro took note of their habitation, while Ramusio speculated as to whether Europe and America were conjoined.<sup>44</sup> He knew of these

<sup>40</sup> Goldstein, "Geography," p. 25.

<sup>41</sup> *Paradiso* 22.151 (ed. J. M. Dent [London, 1946], p. 278).

<sup>42</sup> Ramusio, *Navigazioni*, 5:8–9.

<sup>43</sup> Donattini, "Ramusio," p. 88.

<sup>44</sup> G. Padoan, "Sulla Relazione cinquecentesca dei viaggi nord-atlantici di Nicolò e Antonio Zen (1383–1403)," in *L'impatto della scoperta*, pp. 219–77, especially 235, 239, 262, 272–77. See also Ramusio, *Navigazioni*, 2:984–85.

Venetian materials and had planned to publish them, but death and the burning of Giunti's printing shop prevented their appearance until the posthumous second edition of his second volume in 1574.<sup>45</sup> Nor did Ramusio's special preoccupations with northern routes and *nostro polo* of the Arctic end here. In his "Discourse on the Spice Trade" he considered the viability of a northeast Baltic-Muscovy route to the Indies, which might displace those of the Portuguese and Castilians. Likewise he pursued with Jacques Cartier and Sebastian Cabot the possibility of a northwest passage to Cathay. In the process, whatever the obscurities, "our pole" became populated and humanized immediately below its northernmost reaches (*sotto la nostra Tramontana*).<sup>46</sup>

Ramusio never manifests the same explicit concern regarding the heat of the torrid zone, hitherto believed to constitute a great impassable and uninhabitable belt around the earth. Yet there are scattered expressions of respect and awe for the Portuguese accomplishments in pushing southward along the western coast of Africa during most of the fifteenth century, thereby penetrating to the antipodes and potentially defining a southern hemisphere.<sup>47</sup> In reporting a meeting held at Fracastoro's estate at Cafì, Ramusio speaks of a third presence there, mysterious and imposing, *grandissimo filosofo e mathematico*. It is this gentleman who gives voice to the stunning achievements of the Portuguese, while holding a sphere of the world in his hand.<sup>48</sup> Nevertheless, for an explicit recognition of the habitability of the torrid zone we must wait until the bemused reactions of that otherwise compleat Aristotelian, José de Acosta, who in experiencing the exhilarating coolness in parts of Peru, which according to tradition should have been uninhabitably hot, cannot suppress a somewhat anxious laugh in this particular instance at the Master of those who know.<sup>49</sup>

But what of the south pole? Or Antarctica, which was appearing on the maps as *Terra australis incognita* or even Magellanica? According to Giunti, had not death intervened, Ramusio was planning to produce a fourth volume that would have addressed the matter of the peoples of this great southern hemisphere and of Oceania.<sup>50</sup> To believers in the total habitability of the earth's surface, this uncharted area still re-

<sup>45</sup> Ramusio, *Navigazioni*, 4:141.

<sup>46</sup> Ramusio, *Navigazioni*, 2:981–82, 984–86; cf. 5:7.

<sup>47</sup> Ramusio, *Navigazioni*, 3:22–23.

<sup>48</sup> Ramusio, *Navigazioni*, 2:979.

<sup>49</sup> José de Acosta, *Historia natural y moral de las Indias* (Seville, 1590; reprinted Valencia, 1977), pp. 102–103, 30–33, 39–40, 86–90, 106, 110–11, wherein Acosta dwells on the newly discovered habitability of the torrid zone as *muy templada*.

<sup>50</sup> Ramusio, *Navigazioni*, 1:8.

mained to be empirically verified and defined. Recognizing this, Ramusio apostrophizes any further great prince who will undertake "the other part of the earth toward the Antarctic," hitherto unattempted: "This would truly be the greatest and most glorious enterprise that anyone would be able to imagine, thereby making his name much more eternal and immortal to all future centuries, surpassing that of so many military undertakings which continually occur in Europe among the miserable Christians."<sup>51</sup> In the articulation of this fond aspiration, he was again preceded by Bembo, who saw this task as falling to the lot of Spain and its empire.<sup>52</sup> As if in response to the groundswell of expectation, both Venetian and European, regarding the great southern continent, Rosaccio amended the plates of Ruscelli's double-orb map, appearing in the five previous editions of their work dating from 1563, in order to incorporate Magellanica for his 1598 and 1599 editions of the *Geografia*.<sup>53</sup>

The Renaissance imagination seems to have had its negative as well as positive aspects. The fiction of a great southern continent played upon some of the same urges that fashioned flying saucers in our own age: the lure of the still-to-be-explored, the desire for communication with the exotic, the possibilities for exploitation. On the basis of vague reports the great southern continent first came to be cartographically depicted in all its fictitious splendor in the map by Oronce Fine in 1531. Its acceptance by Gerhard Kremer Mercator and Abraham Ortelius (1569–70) had the effect of canonizing the fiction.<sup>54</sup> Ortelius reports on his own map that Mercator divided the earth into three continents: (1) Europe, Asia, and Africa; (2) America

<sup>51</sup> Ramusio, *Navigazioni*, 5:12: "E veramente questa sarebbe la maggiore e più gloriosa impresa che alcuno imaginar si potesse, per fare il suo nome molto più eterno e immortale a tutti i secoli futuri di quello che non faranno tanti travagli di guerra che di continuo si veggono nell'Europa fra i miseri cristiani."

<sup>52</sup> Bembo, *Opere*, 1:142.

<sup>53</sup> See the analysis of this map in Rodney W. Shirley, *The Mapping of the World: Early Printed World Maps, 1472–1700* (London, 1983), entry 110. After 1560, except for Ruscelli and G. L. d'Anania, who here follows Ruscelli, all of Venetian cartographic production to the end of the century went over to including the great southern continent, thereby reflecting the prevailing wisdom established by Mercator and Ortelius. For Venice alone on this matter, see entries 106–107, 112, 115–18, 120–21, 126–29, 152, 154–55, 160, 193–94, 199, 205, and 217. D'Anania is interesting in that his *L'universale fabrica del mondo overo cosmografia* (Venice, 1582) emphasizes the variety and complexity of the individual parts of the earth's surface rather than the overall sense of a basic uniformity suggested by the Venetian celebration. As a Calabrian, publishing his work repeatedly in Venice—in 1576, 1582, and 1596 after the Naples editio princeps of 1573—he seems oblivious to Ramusio's work. I am here using the Vatican copy of the 1582 edition of this important geographical work.

<sup>54</sup> W. A. R. Richardson, "Mercator's Southern Continent: Its Origins, Influence and Gradual Demise," *Terrae incognitae* 25 (1993): 67–98, especially 72, 88.

or the West Indies; (3) the south main or Magellanica. When in 1599 Edward Wright deliberately omitted the last, the general cartographic culture of the day failed to register this advance.<sup>55</sup> Although few readers seriously believed that the new races of humankind had faces in their chests or ears the size of tarpaulins, both cartographic diletantes and scholars expected to see such depictions as proof that the authors had touched the required bases of the standard sources.<sup>56</sup> Furthermore, Mercator cannot be faulted for his massive inclusion of the southern continent; he was simply following the habit derived from Marco Polo of giving graphic expression to unknown places described.<sup>57</sup> Joseph Hall, later bishop of Exeter, parodied this widespread credulity in his satire of 1606, *Mundus alter et idem*, wherein he presented a truly upside-down world, especially in its values. Hall has his *persona* of Beroaldus express indignation with maps that sport *Terra australis incognita*. "For if they know it to be a *continent*, and a *southern* one, how can they call it unknown?"<sup>58</sup> Nevertheless they could and continued to do so—sufficiently to persuade the Vatican to create the Apostolic Prefecture of Terra Australis on 15 July 1681, although such an office quietly never materialized.<sup>59</sup> In the meanwhile, however, this fictitious space would offer generous locations for many a utopia.

One of the crowning ironies in the history of cartography and exploration stems from the Spanish participation in what turned out to be a mirage. Most Iberian cartographers relied almost exclusively on some sort of empirical evidence derived from navigators. Indeed, the instructions of the Casa de la Contratación required pilots to report "all entries made on return, but nothing should be inserted that was not properly attested or sworn to"—all in an effort to keep the modular map of the *padrón real* up to date.<sup>60</sup> Despite their native practicality and their empirical strictures, Spanish navigators carried with them more than enough mythological and biblical ballast in questing for Tarshish, Ophir, and the ultimate resort of King Solomon's ships. Thus the voyages of Alvaro de Mendaña, who located "the Solomon Islands"

<sup>55</sup> John Gillies, *Shakespeare and the Geography of Difference* (Cambridge, 1994), pp. 158, 162.

<sup>56</sup> Harry Kelsey, "The Planispheres of Sebastian Cabot and Sancho Gutiérrez," *Terrae incognitae* 19 (1987): 41–58, especially 46.

<sup>57</sup> Richardson, "Southern Continent," p. 98.

<sup>58</sup> Joseph Hall, *Another World and Yet the Same*, ed. and trans. John Millar Wands (New Haven, 1981), p. 12.

<sup>59</sup> Richardson, "Southern Continent," p. 95.

<sup>60</sup> J. B. Harley, "Silences and Secrecy: The Hidden Agenda of Cartography in Early Modern Europe," *Imago mundi* 40 (1988): 57–66, especially 62; Richardson, "Southern Continent," p. 98.

in 1567, and those of his later pilot in 1595, the Portuguese Pedro Fernández de Quirós, advanced the Spanish knowledge of their lake in the last years of the sixteenth century, but did little to establish the ever elusive southern continent. Quirós suffered from an acute Columbus complex.<sup>61</sup> He pelted Philip III of Spain with memoranda that named the new continent Austrialia in honor of the Habsburg dynasty and world order. In his *Relación* of 1610, first published in Spanish in Pamplona and in Dutch at Amsterdam two years later, he rhapsodized over the huge extent of this fifth (*sic*) part of the terrestrial globe, its riches, and of course its many inhabitants whom he apparently had seen and reported as happy and carefree, not sharing "such vexation and torment [as] we here labor to obtain."<sup>62</sup>

The spectacular frustration, disappointment, and lack of fulfillment of Quirós's last years have come to obscure the efforts of the man upon whom fell the heavy mantle of this impossible quest, and with whom our study of the sixteenth century's idea of the earth's total habitability may properly conclude. Juan de Silva belonged to a generation of Spanish leadership that saw many of its members pass from a previous military career to that of missionaries. He had served at Malta in 1565, had pursued the Turkish fleet with Don Garcia de Toledo, had fought with the duke of Alva in the Netherlands, and sailed with Medina Sidonia to England in 1588.<sup>63</sup> Turned Franciscan friar and missionary, de Silva applied his new talents for twenty years in Florida and New Spain before becoming a royal chaplain. In the numerous memoranda with which he bombarded the young king Philip III, we gain a sense of the extent to which he believed the southern continent to be not only populated but teeming with inhabitants. For he counters one objec-

<sup>61</sup> For a brief biographical sketch, see *The Voyages of Pedro Fernandez de Quiros, 1595-1606*, ed. and trans. Sir Clements Markham, 2 vols. (London, 1904), 1:xvi-xxxi, especially xviii, xxix; 2:486, 502-503.

<sup>62</sup> Stelio Cro, *The American Foundations of the Hispanic Utopia: The Literary Utopia*, 2 vols. (Tallahassee, Fla., 1994), 1:38-43, 47-49; cf. Frank Lestringant, *Mapping the Renaissance World: the Geographical Imagination in the Age of Discovery* (Cambridge, 1994), p. xi. See also the remarkable memorial of the Chilean lawyer Dr. Juan Luis Arias to Philip III shortly after 1614, where the southern hemisphere is not only astrally favored, loaded with precious metals, and possessing a most salutary climate, but also populous, if given over to Lucifer, unless the king of Spain accepts the great commission: "the crown of universal empire of the globe in His hand, ready to place it on your head, if you value, as it should be valued, this Divine commission, and execute it with that zeal and devotion which the charge enjoins . . . [to] withhold the said zeal from the undertaking, it would doubtless be the greatest disaster that could happen to this kingdom and the most certain sign that God is withdrawing His hand from us." Markham, ed., *Voyages*, 2:517-36, especially 532.

<sup>63</sup> Paulino Castañeda Delgado, *Los memoriales del Padre Silva sobre la predicación pacífica y los repartimientos* (Madrid, 1983), p. xiii.

tion by asserting that while at the convent of San Francisco in Madrid he obtained from the Franciscan vicar general an offer of a hundred religious, all preachers, to go with him for the new spiritual conquest of the Austral Lands.<sup>64</sup>

Impelled by Quirós's vision, de Silva evolved the Franciscan missionary plan (1617–27) for the conversion of the natives of the Austral Lands, now ostensibly one vast missionary preserve of the Franciscan order. Although his great memorial to the king did not appear in print until a few months after the king's death early in 1621, Philip III, who had apparently shown uncharacteristic interest in the project during the past six years, read it in manuscript in mid-May 1619. With the new reign and Spain's descent into the maelstrom of global war, the *monarquía* was otherwise engaged in fighting for its life, and de Silva turned vainly to Pope Urban VIII as a sponsor.<sup>65</sup>

The *Advertencias importantes* of Juan de Silva claims our attention. After rehearsing that his majesty has a heavier charge than other kings, indeed a twofold charge to nourish both in spiritual and in temporal matters, a Catholicity traced to Gothic origins, de Silva justifies Rome's concession of the supreme principate and *superioridad imperial* of the Indies to the Catholic kings.<sup>66</sup> As all the great doctors from Aquinas to Covarrubias show, the Indians as sons of Adam enjoy reason and participate in humanity. The king's obligation does not limit itself to simple conversion but extends to maintaining them in that conversion in such a way as to make *Christian* and *Spanish* no longer hated terms. Then de Silva turns to consider the innumerable souls in *los Reynos Australes* presently in the power of Satan.<sup>67</sup> According to the words of the Psalmist (71:8) that he shall have dominion also from sea to sea, the present king will see in his own lifetime the consummation of that evangelical preaching that will come to *toda la Gentilidad* as it came to the Mediterranean lands, to the Orient, the Occident, y *Mediodía*—in what he has referred to as *esta quinta parte del mundo*.<sup>68</sup>

This awesome responsibility of the Catholic king warrants de Silva's suggestion that the greatest charge and trust evident in Christ's *Pasce oves meas* (John 21:17), which properly pertains to the pope, has been delegated and devolved in fact upon the Spanish king, who

<sup>64</sup> Celsus Kelley, OFM, "The Franciscan Missionary Plan for the Conversion to Christianity of the Natives of the Austral Lands," *Americas* 17 (1961): 277–91, especially 284.

<sup>65</sup> Celsus Kelley, OFM, *La Australia del Espíritu Santo* (Cambridge, 1966), pp. 110–33; Geoffrey Atkinson, *Les Nouveaux horizons de la Renaissance* (Paris, 1935), p. 410.

<sup>66</sup> Castañeda Delgado, *Silva*, pp. 303–304.

<sup>67</sup> Castañeda Delgado, *Silva*, pp. 304–305.

<sup>68</sup> Castañeda Delgado, *Silva*, pp. 358–59.



among Christian princes is as Peter among the apostles. It is a trust shared with or bestowed upon no other prince. Prophecy indicates that the temple of Jerusalem has passed to Rome as head of the *pueblo Gentílico Romano*, where it will be rebuilt. All things support the Spanish king's realization of being *señor del mundo todo*.<sup>69</sup>

To some of those living at the beginning of the seventeenth century, Spain seemed about to realize the world monarchy that had eluded the Romans.<sup>70</sup> Yet the eruption of war prevented Spain's further pursuit of the "Austrian" mirage as its power began rapidly to decline in the Pacific. Consequently, except for the gradual definition of the Australian subcontinent by the Dutch, the issue of the great southern continent and its presumed habitability remained suspended until its ultimate evaporation by Captain Cook in the eighteenth century and Admiral Byrd in the twentieth. Thus, if the ancients had been surpassed, they had not been proved to be entirely wrong.

In concluding we must return once more to the weighing of Giunti's exclamation. All five of the previously defined resonances would seem to pertain. But surpassing all the rest is the last—the celebration of the totally humanized world. The awareness of the accumulated new lands and peoples on a transformed and enlarged terraqueous globe reinforces the cognitive impact of the accomplishment whereby the formerly preconceived yet formidable barriers preventing access to other continents and peoples have been dissolved by a rare combination of reason and experience, of Platonist deduction and empirical increments. Differently stated, the machine of discovery, assembled and operated by Europeans, principally Iberians, had not only produced in "America" an immense perceptual challenge and epistemological problem but also the realization of an almost totally accessible and inhabitable global arena in which to contend with this problem. Once engaged, as it was in Venice by Ramusio and his associates, the continuing reflection upon and account of this ongoing enterprise registered the increasing links of global interconnectedness as Europeans came to know this world. The first stage of this process took 500 years to play itself out, ending with the dissolution of the motor by which a confident, assertive European Christian culture had brought about the realization of a global arena. The earth's accessibility and habitability, and the understanding of both, proclaimed in Giunti's statement

<sup>69</sup> Castañeda Delgado, *Silva*, pp. 358–66, 383–86.

<sup>70</sup> James S. Romm, "New World and *Novos Orbos*: Seneca in the Renaissance Debate over Ancient Knowledge of the Americas," in *CTA*, 1:77–116, especially 92–93.

amount to nothing less than the human taking possession of the planet. Indeed the point seemed clear even in remote Wittenberg, where a Lutheran humanist, Erasmus Schmid, in making an invidious comparison with the geographical ignorance of the ancients, exclaimed in 1616 that such ignorance was not less blameworthy than the head of a household who does not know the rooms of his own home.<sup>71</sup>

Before closing we need also to reconsider the impact of these events upon the actual reality of the ecumene, so abruptly and astoundingly expanded. In the potential dissolving of boundaries with the encounters between peoples, natural reason might tentatively advance a completely new, even secularized ecumene or realized mankind, although will and deep-seated custom pulled another way. The universalizing currents traditional to the West in Stoicism and Christianity, of universal empire and universal church, could and did capitalize on this new global reality and spawned their imperialist challengers among the other nations of Europe in the competitive game of carving up the world. It is thus not surprising that there never developed in this still religious age a shared, balanced secular understanding of the ecumene. Such an understanding lacked all institutional and conceptual bases of support at the time; nevertheless, a potentially secular view of mankind present in natural law inhered in the larger theological construct of the entire human race deriving from the single Adamic source. What these relatively tiny European kingdoms lacked in size, they more than compensated for by way of pride and internal organization. Where power asserted itself, as it quickly did despite the fine ideals of formal brotherhood, all peoples might be seen as human, enjoying the common human stamp (*commun et humain*) as defined by Montaigne,<sup>72</sup> but—to employ an Orwellian twist—some were obviously more human than others.

Giunti's exclamation with its cognitive implications occurred in the first flush of European expansion and exploitation, before the shattering of the monogenetic view of human descent and well before the European motor had spent itself. The process of forging those global interconnections would reveal the ascendancy of technology, the imperatives of power and baser human interests over anthropology and human understanding. Reflecting upon the immense aggressive force

<sup>71</sup> Romm, "New World," p. 105: "fere dedecus videtur fuisse tantas terras tamdiu ignorasse; non minus atque patrifamilias turpe esset si domus suae conclave praecipuum non nosset." *Pindarou Periodos* ([Wittenberg], 1616), p. 262.

<sup>72</sup> *Les Essais de Montaigne*, ed. Pierre Villey and V.-L. Saulnier, 3 vols. (Paris, 1988), 3:13, 1116.

of the European explosion into a larger world, Ramusio ends his "Discourse on the Spice Trade" thus: "From so much variety and changes the men of our age had reasons far exceeding the ancients in enterprise for searching out the world; in not recognizing their natural fragility and weakness, as if they were immortal, they did not hesitate before any difficulty, neither the torrid zone nor the two cold, icy zones, from going forth, continually toiling, surging throughout the entire roundness of the earth in order to satiate their immense cupidity and avarice."<sup>73</sup> The European core would need to burn itself out, and with it the exclusivities of Christianity and a sense of special preeminence, before Europe and its neo-Europes of the periphery might begin the task of bringing peoples together in terms of equality and understanding rather than of superiority and exploitation. For we confront here a paradox: the Christian-European civilization that had made possible, at least technologically, a single, global world would have to suffer the displacement of its original preeminence before the harmonization of peoples and their respective cultures could be addressed on a basis of equality.

Although the process of completing the first stage would require 500 years, there were some at the inception who pointed to the adjustment required. Shortly after the initial impact of Luther's reform, the radical spiritualist Sebastian Franck compressed within a decade of his own experience the entire gamut of confessional dissent that would convulse the life of Europe for the next century. In his radical rethinking of Christian history and theology, he effectively expunged all the institutional, sacramental, and hitherto distinguishing features of the church and claimed that the church existed only in the spirit after the death of the apostles. From his remove in central Europe he devoted an entire section of his *Weltbuch* (1534) to America. After considering the slaughter, pillage, and rapine effected by the *Hauptmann* Hernán Cortés upon an entire people, he continues:

There is a small number of pious everywhere. In short what Scripture shows, all histories prove: now [God] weighs the number and variety of the world's beliefs; likewise the work of this wonderworking God disposes an impartial kindness, uniform and like-minded toward all

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<sup>73</sup> Ramusio, *Navigazioni*, 2:990: "di tante varietà e mutazioni n'erano cagione gli uomini della età nostra, molto più che gli antichi industriosi e arrisicati nel cercare il mondo, i quali, non avvegandosi della naturale lor fragilità e debolezza, come se fossero immortali, non restavano per alcuna difficoltà, né della zona torrida né delle due agghiacciate e fredde, d'andare continuamente travagliando, rivolgendosi d'intorno a tutta la rotondità della terra per saziar la loro immensa cupidità e avarizia."

peoples, without consideration of persons. For He is gracious toward all who fear, love, invoke Him among all peoples, even as his church is strewn in every corner of the world. And He has not fastened his favor upon only one people as Israel, but from the south and north poles, from the east and the west, He will seek out his elect so that the children of the Kingdom, who were considering themselves first, perhaps will [themselves] become rejected.<sup>74</sup>

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<sup>74</sup> Sebastian Franck, *Weltbuch: Spiegel und Bildtnisz des gantzen Erdbodens* (Tübingen, 1534), fols. ccxxxiv–ccxxxv. “Item das der frummen ein kleyne anzahl allenthalben ist. Summa was die schrift zeugt das beweisen alle Chronicken. Hie erwige auch die vile und manigfeltigkeyt der welt glauben etc. Item die werck des wunderwirkenden Gots / wie er ein unparteyisch güt / und gegen allen völkern eyinig und gleich gesinnet ist on ansehung [der] person / ja wie er gnädig ist / gegen allen denen die ynförschten lieben / anruffen / under allen völkern / auch wie kirch sein zerströwet sey in alle winckel der welt / und das er nit allein eins volcks wie Israels gunst gefasset hat / sunder von Austro und Aquilone / Orient unnd Occident seine ausserwölten herfür süchen wirt / so die Kinder des Reichs die sich die ersten verhoffen züsein / etwan werden aussgemustert werden.” Here I wish to thank my friend Philip L. Kintner for kindly providing me with a photocopy of the “America” section of the *Weltbuch*.