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The American *De coelo* Heaven and Earth in the New World's First Printed Work on Natural Philosophy

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Abstract

The article analyses Alonso de la Vera Cruz's ideas on cosmography, including both celestial and geographical conceptions, displayed in *De coelo* from his *Physica speculatio* (1557). This book introduced in New Spain the hegemonic natural knowledge of the time as well as alternative ideas. At the same time, living for years in the New World, La Vera Cruz drew on his own experience when discussing the qualities of the Americas and their inhabitants. Unlike the imperial cosmography of the time, he valued not only the natural qualities of those lands but also their inhabitants, which had important social implications. The article also argues that La Vera Cruz reinterpreted European notions to adapt them to the Americas and, at the same time, developed a local perspective that transferred the idea of centrality from Europe to the New World. In doing so, he had to mediate with both local and transatlantic interests and visions. Reissued three more times in Salamanca since the 1569 edition, the *Physica speculatio* included references to the coasts of the American continent, which constitutes an exception to the secret nature of this kind of cosmographical information in the Ibero-American world.

Keywords: *Alonso de la Vera Cruz, American Cosmography, Commentaries on De caelo, Ibero-American Science, New World Geography*

1. *Knowledge in Motion: From the School of Salamanca to the New World Controversies*

Alonso Gutiérrez was born in 1507 in the Castilian province of Guadalajara. At that time, new explorations were changing the idea of the world, which, for the first time, could be conceptualised as a unitary whole.¹ Furthermore, early European

¹ This study is part of the UNAM project Critique of Epistemocracy, Pluralism, Epistemic Equity and Democracy.

expansion, led by Portugal and Spain, was bringing about important social changes both in the Old World and in the newly colonised lands. The traditional worldview and ideas about society and humanity were challenged. This transformation was conceptual, political and economic, and it involved lively confrontations between groups with conflicting ideas and interests about the conceptualisation and shaping of that first global world.

Alonso Gutiérrez grew up in this dynamic and conflictive context. He studied at the recently created University of Alcalá, and later at the University of Salamanca. There, he was taught by some of the most prominent members of the so-called *Escuela de Salamanca*, such as Francisco de Vitoria (1483-1546) and Domingo de Soto (1494-1560). After graduating in arts and theology, Alonso began to read courses in the faculty of arts or philosophy, i.e., logic and philosophy, at the University of Salamanca. At the same time, he was also commissioned as a paid tutor of two of the children of the fourth Duke of the Infantado. Alonso's future in Salamanca looked promising (Grijalva 1624, 23r).

However, in 1535 the Augustinian friars convinced him to work as a preceptor of arts and theology in their missions in New Spain. In 1536, Alonso set sail for the New World, along with several Augustinians who on the way persuaded him to join their order. Upon arriving at the port of Veracruz in New Spain, he took the Augustinian habit and changed his name to Alonso de la Vera Cruz (27r). At that time – fifteen years after the fall of Tenochtitlan and only one after the arrival of the first viceroy – the multicultural society of New Spain was in the process of defining itself and finding its place within the new conformation of the world.

The Augustinian order in New Spain established a province with its own government, whose members were elected in provincial chapters (Rubial 2014, 50). In 1540, the provincial chapter agreed to the creation of a College of Higher Studies in Tiripetío in Michoacán, the first of its kind in the Americas, where Alonso was appointed to teach courses on arts and theology. There he learnt the Purépecha language while teaching students such as Antonio Huitziméngari, who was the son of the last Caltzontzin – the indigenous ruler of the region (Basalenque 1673, 22v-23r). The influence of Alonso's teaching persisted in this land through the work of one of his students and co-religionist's: Juan de Medina Plaza, who wrote a *Dialogue on Nature* in Purépecha (2011).

In 1553, La Vera Cruz joined the new University of Mexico as a professor of sacred scripture and theology, even though he continued to work on philosophical topics. In 1554, he published two treatises, *Recognitio summularum* and *Dialectica resolutio*, in which he presents an overview of the logic and epistemology of his time. These texts attempted to contribute to the instruction of students of arts or philosophy at the University of Mexico, to which La Vera Cruz dedicated his treatise on dialectics. Following the example of his Salamanca teachers, he closed his annual courses with a talk or *relectio* on some controversial topics such as marriage or questions triggered by the New World. In 1554, his subject was *Dominio infidelium* (Infidels' domain), and a year later he wrote a *relectio* called *De decimis* (On tithes), where he stated that indigenous peoples should be exempt from this payment. This was a defence not only of the natives, but also of the mendicant orders in the face of the increasing power of the secular clergy; as a result, the archbishop, Alonso de Montúfar, forbade its reading. He continued working on his first *relectio* until he wrote the treatise *De dominio infidelium et iusto bello*, in which he analysed if the war of conquest had been fair.² Additionally, in 1556 he published his *Speculum coniugiorum* on indigenous marriage, based on his own observations and direct testimonies. In

² The controversial nature of these works prevented their publication until the twentieth century, when Ernst Burrus published them in 1967 and 1968.

all these works, La Vera Cruz reviewed assertions made by Francisco de Vitoria and Domingo de Soto, and enriched them with local controversies and encounters with the Purépecha and Mexican peoples (Cerdea 2009).

In general, La Vera Cruz expanded European conceptions to incorporate the particularities of New World societies, for instance, when he defended indigenous marriage (Medina 2009), but his defence of native societies went further. The hegemonic conception of the inhabitants of the New World, developed from the first Caribbean encounters, asserted that they were barbarian peoples lacking intellect and politics (Pagden 1982). In his *relectio De indis*, Francisco de Vitoria proposed that if it was true that the native peoples lacked the capacity for self-government, this would be a justification for Spanish dominion, but he left the question open (1975, 103-104). La Vera Cruz attempted to resolve this controversy based on his experience with Nahua and Purépecha societies, which were more complex than those of the Caribbean peoples of the first encounters. He maintained that the Native Americans were not as stupid as some claimed, but prudent people with their own laws and legitimate dominion and regimes (2004, 329 and 334). In this way, La Vera Cruz questioned the legitimacy of the war of conquest of native American societies. He stated that the indigenous peoples now under Spanish rule had their own governments and laws. To understand Alonso's ideas, it may be useful to take into account Vitoria's distinction between perfect republics – those which are independent – and imperfect ones – part of a larger republic (1975, 116). Thus, despite being part of the Spanish empire, Alonso declared that dominion belongs to the local community. Even if the community decides to transfer dominion to others they must govern for the benefit of the community (Vera Cruz 2004, 117-118 and 168). Similar ideas were developed in the manuscript *Parecer razonado sobre el problema de la Conquista* – attributed to La Vera Cruz – which argues that the only title the Spanish king had over the Indies is that the native peoples had agreed to be his vassals and, therefore, they deserved the same treatment as the Spaniards (Cuevas 1914, 179).

These ideas led Ambrosio Velasco to claim that La Vera Cruz inverts the pyramidal conception of vice-regal power – sustained by the papacy and the emperor – by developing an incipient republicanism, in which dominion rests with the community. Hence, Velasco argues that, since the beginning of the Ibero-American world, there had been a clash between local and humanist claims and imperialist and exploitative interests (2009).³ Although this confrontation is clearly visible, it is important to recognise that, ultimately, La Vera Cruz accepted the Spanish conquest as a *fait accompli* (Vera Cruz 2004, 379; Heredia 2007, 60-61). This does not mean, however, that he agreed with spoliation practices or with strictly hierarchical and absolutist politics. Quite the opposite – he argued that dominion is rooted in the community itself and that the government, even as part of an empire, must seek the welfare of the community as a whole, including that of the indigenous peoples and settlers (Velasco Gómez 2007, 71; Quijano 2017, 154-156). That is, his republicanism does not refer to a particular form of government, but to the ideal that every form of government should have the community as its beginning and end. But within the new world order, in which the Novo-Hispanic multicultural society was taking shape, conflicts between different interests and ideas – local and transatlantic – were inevitable. The thought of La Vera Cruz must therefore be studied within these complex discussions.

³ Enrique Dussel has developed similar approaches in the case of Bartolomé de las Casas (2020, 59-78).

2. *On the Heavens in La Vera Cruz's Physica speculatio*

While defending his political ideas, La Vera Cruz finished the edition of his complete course of philosophy with the publication of his *Physica speculatio* in 1557. Like all his other books printed in Mexico during his lifetime, though surely edited, the licences do not appear within the texts – a common feature of printing in the New Spain at that time. In theory, books had to be licensed by the archbishop in order to be published, but it was not until 1558 that approvals were included in texts. The same was true of the instruction that all books had to be reviewed by the Council of the Indies, which did not yet apply to the works of La Vera Cruz (González 1997, 46-47). In his *Physica speculatio*, Alonso claims that ‘hanc naturalium rerum considerationem in unum congegimus’ (Romero Cora 2015, 100)⁴ so, as was usual in his time, he used physics as equivalent to natural philosophy. Hence he included books not only on physics, but also on generation and corruption, meteorology, the soul and the heavens. Accordingly, the *Physica speculatio* was not only the first text on physics, but also on natural philosophy and astronomical subjects printed in the New World. Although Alonso often followed the traditional Aristotelian Thomistic ideas, he also claimed to be ‘aliqua nova adducendo ... non excogitata neque inventa’ (Vera Cruz 1557, Prologue; Romero Cora 2015, 100).⁵

It is mainly in his book *De coelo* (On the Heavens) that La Vera Cruz deals with cosmographical issues, as he presents a general conception of the world that includes both the celestial and terrestrial spheres. Unlike Aristotle's *De caelo*, which comprises four books, Alonso's *De coelo* consists of only one. Alonso explained that this is because Aristotle studied many difficult yet unfruitful issues, whereas he only wants to deal with those of some importance. On the other hand, at the end of this book, he included the treatise *De Sphaera* written by Campanus of Novara (a thirteenth-century author) with the intention of offering some elements of astronomy – not considered by Aristotle but usually studied in the treatises on the sphere (Vera Cruz 1557, 361).

As the first American text on natural philosophy, the ideas on heavens and earth developed by La Vera Cruz were largely in line with those asserted by the scholasticism of his day. In that way, Alonso adopted the idea of a geocentric cosmos divided into two main regions: one terrestrial and the other celestial. In the terrestrial realm, bodies are composed of the four elements with opposite qualities, always in constant generation and corruption, while above the moon, the heavens remain incorruptible. But beyond these hegemonic ideas, La Vera Cruz's speculations in his *De coelo* were presented as questions in which different opinions were contrasted. In other words, he mentioned and introduced alternative ideas. For example, he referred to the opinion – without accepting it – that comets are not meteorological but celestial phenomena (244). In the case of the attached treatise on the *Sphaera*, even though Campanus followed traditional conceptions of the cosmos, he mentioned alternative ideas as well. He wrote, for instance, that there are those who think that the celestial spheres do not move, but that it is the Earth that rotates every day. Likewise, Campanus mentioned the so-called Capella system in which Venus and Mercury revolve around the Sun. The process of contrasting different opinions, weighing their respective arguments and authorities, sometimes led Alonso to settle on an alternative idea about the world, as he did, for example, with regard to the controversy over the distinction between terrestrial and celestial matter.

⁴ (we gather in one this consideration of natural things).

⁵ (presenting something new ... not imagined or discovered [by others]).

To resolve the question of whether celestial matter is different from terrestrial matter, Alonso proceeded dialectically by weighing which opinion is more ‘probable’ on the basis of the authorities and arguments put forward.⁶ While acknowledging the idea that the heavens are of a different matter has a certain ‘probability’, he claimed that it is based on one reason only: there is no corruption in the heavens. But he asserted that ‘haec ratio non convincit, nam ratio corruptionis non solum a materia est’ (Vera Cruz 1557, 366),⁷ but can also be triggered by the presence of opposing agents, by the subject’s own disposition, or by reason of its form. He concluded that the opinion attributing the same matter to the celestial and terrestrial realms seemed ‘probabilior’ (more probable). He supported this with the above arguments and by citing various authorities. He argued that this opinion was widespread before Aristotle, referring mainly to a passage from Plato’s *Timaeus* 41a-b. A similar opinion was attributed to ‘theologians’, probably a reference to some of the early fathers of the Church. Amongst others holding this view he mentions by name Bonaventure, the Augustinian Aegidius Romanus, the nominalist William of Ockham, and the Salamanca teacher Alonso Fernández de Madrigal (Vera Cruz 1557, 366). With this alternative idea, Alonso attempted to harmonise the conceptions of natural philosophy with theological ideas on creation and the end of time. His notion of a single matter in the heavens and on earth can be placed among ideas of his time in which conceptions of the celestial were being renewed before the celestial novelties of the 1570s (Lerner 2008, Ch. 1). In the spirit of Renaissance humanism, these early cosmological changes were influenced by the recovery of alternative traditions such as Platonism and the reinterpretation of biblical exegesis as in the case of La Vera Cruz.

3. *New Worlds and New Centres: The Qualitative Place of New Spain*

The revival of Ptolemy’s *Geography* in the early fifteenth century reinforced the idea of *oikoumene* – an inhabited land covering only part of the globe. This known world was limited by oceans and by climatic considerations – that is, it was restricted in the north by the coldness of the Arctic and in the south by the heat of the tropics. This meant the ecumene covered only the temperate zone of the northern hemisphere between the frigid and torrid zones. This idea was revived in the thirteenth century by Johannes of Sacrobosco in his famous treatise *On the Sphere* and prevailed until the age of the great discoveries, as can be seen in Giovanni Leardo’s map made in the mid-fifteenth century. Since classical times, it had been believed that even within the known world there were different regions with climatic and social differences. For example, Aristotle and Pliny – following Hippocratic conceptions – argued that the peoples of extreme regions had contrary qualities and while they had some virtues, they lacked others. In cold regions men were brave but not very intelligent, while in hot places (in Asia for Aristotle) men were clever but cowards. Thus, only in the balanced zone – in which Aristotle and Pliny were situated – could men enjoy a climate that combined all the good qualities. According to these ideas, the temperateness of the middle zone allowed the cultivation of any product and, in social terms, it enabled the development of the best political organisation (Pliny 1949, 321-323; Aristotle 1998, 202). Throughout medieval times, these ideas were developed by authors like Albertus Magnus (Wey 2008, 69-70 and 279-282), and they were applied again, albeit not without transformations, by the Europeans at the time of their encounter with the New World to justify their imperialism (Pagden 1982, 66; Gerbi 1985).

⁶ The notion of ‘probable’ based on authorities and argumentation is different from that which emerged in modernity linked to something measurable either statistically or as a degree of belief (see Hacking 2006).

⁷ (this reason is not convincing, because corruption is not only caused by matter).

Although the torrid zone was mostly assumed to be uninhabitable due to its extreme heat, some authors held an alternative view. Unlike Sacrobosco, some of his commentators, such as Campanus of Novara and Robertus Anglicus, embraced the possibility posed by Ptolemy that, since days and nights are equal at the equator, this zone could be quite temperate and extremely pleasant to live in. They even speculated that the earthly paradise could be located in the torrid zone (Thorndike 1948, 190-191 and 239-240; Crowther 2020, 170). However, the idea that the terrestrial paradise was situated in the east of the known world, based on *Genesis* 2:8, was more widely accepted; an instance may be seen in the above-mentioned map by Giovanni Leardo. Beyond the classical limits of the ecumene, alternative ideas about the inhabitants of unknown regions of the world, and of a temperate torrid zone, were revived at the end of the fifteenth century to encourage voyages of discovery such as the one undertaken by Columbus (Wey 2008, 232-235).



Figure 1 – Ecumene map limited by the cold areas in the North and by the hot ones in the South and with the earthly paradise in the East. The Giovanni Leardo map, 1452 or 1453.
Courtesy of American Geographical Society Library, University of Wisconsin-Milwaukee Libraries

The coincidence in time of the Renaissance and of the great discoveries allowed sailors' reports to confront the literary culture of humanism, and from the (sometimes conflicting) knowledge generated by both, a new cosmography and worldview was built. Unlike previous authors, the explorers based their ideas not only on speculative arguments, but also on their own experience, soon refuting the opinion that the torrid zone was extremely hot and uninhabitable. They highlighted the temperate nature of the discovered lands while drawing on other ideas to characterise them. On this basis, both Columbus and Vespucci speculated that, because of their agreeable qualities, the earthly paradise might be located in these new lands (Columbus 1847, 135-138; Eden 1885, 278).

At the same time, from the earliest explorers on, the idea of the wealth of the New World was often accompanied by the denigration of its inhabitants as inferior and easy to dominate. Both positions gave rise to imperialism: the exaltation of American nature made these lands attractive to Europeans, while the denigration of their people justified their conquest (Crowther 2020, 175). In other cases, inferiority was attributed not only to the natives but also to the land, since both were conceived as intertwined. In this way, the New World and its population were incorporated into traditional European views, a further instance of the world being ordered from a Eurocentric point of view that claimed to be the qualitative centre of nature, humanity and society. The newly discovered lands, though habitable, were still considered extreme and peripheral – rather hot and not as temperate and benign as in Europe. Similarly, their peoples were considered physically, intellectually and politically inferior.

Although widespread, the idea of the inferiority of the New World was not, however, universally accepted. Bartolomé de las Casas, for instance, known for his defence of the indigenous peoples, also more generally supported the qualities of the New World. Las Casas maintained that these lands were temperate like no other and most suitable for humans. He followed Columbus' conjecture that the earthly paradise could be found there (1957, 377). Las Casas also stated that its inhabitants were not only intelligent but also lively and vigorous, and that they were political peoples with well-ordered 'republics' (1909, 85 and 509). In other words, he attributed to the Americas the natural and social qualities that Europeans claimed for themselves (Wey 2008, 399).

Alonso de la Vera Cruz wrote in this controversial context. In *De coelo*, he discussed climates, questioning whether the whole Earth is inhabitable and whether the location of paradise is truly in the East. Although at some point he affirmed that paradise's location is perhaps indiscernible, in response to the question of the habitability of the world, he took a different approach. Though he affirmed that all regions of the world are habitable, his main interest was, of course, in the torrid zone and the New World. He drew on Campanus' treatise *De Sphaera*, attached to the *Physica speculatio* to support his ideas. Although the appended text was exactly the same as that written by Campanus a few centuries earlier, the notion of an inhabited torrid zone had moved from theory to the concrete reality of a whole new world. At the same time, by changing the place of enunciation to Mexico City, where *De Sphaera* was now printed, the positive qualities that Campanus had attributed to the torrid zone were ascribed to the corresponding regions of the New World. In summary, the new experiences that discoveries allowed and theoretical speculation converged and complemented each other.

On the qualities of the torrid zone and the New World, La Vera Cruz supported his ideas with reference to previous authors and through his own experience. While following Campanus' assertions, he applied them to New Spain, stating that the climate in this region was never too extreme. He argued that this land was a very suitable place, especially under the equinoctial and further likened it to the earthly paradise with perennial harvests and a balanced climate. He

borrowed the story narrated by Robertus Anglicus (without mentioning him) of an enchanter who was promised, by a demon, all year round ripe fruit in a place that was believed to be uninhabited but was most pleasant – the earthly paradise (Thorndike 1948, 191 and 239-240). Alonso claimed that the inhabitants of New Spain could confirm this as they enjoy all kinds of ripe fruits any day of the year – not only from this region but also those brought from Old Spain. Even at Christmas – the coldest time in New Spain – figs, grapes, apples and other ripe fruit can be eaten (Vera Cruz 1557, 370). As can be seen, these products are of European origin, so La Vera Cruz applied classical European ideas to the nature of the New World, reflecting not only a conceptual rethinking but also the production and consumption practices allowed by the less severe American winter in the torrid zone.

La Vera Cruz, as Las Casas before him, challenged the traditional Eurocentric concept of the New World as peripheral and its inhabitants as inferior. Unlike pro-imperial interpretations, he valued these lands and their inhabitants, which had important political implications. As he had done in his more political texts, he re-interpreted European cosmographical notions to adjust them to the Americas. He developed a local perspective that placed the interests of the community above those of the central state and, at the same time, exalted the qualities of the New World. Thus, La Vera Cruz not only inverted the ultimate foundation of government to attribute it to the community, but he also modified the hegemonic image of the world to transfer the central qualities both natural and social to the New World. For him, the American climate was the most temperate while the political agency should be held by local communities including native peoples. Although the Americas were in the process of integration within the new cosmography of the world, La Vera Cruz's vision was not aligned with the European one but was instead situated in the New World.

La Vera Cruz's appraisal of the local environment of Mexico and its government was similar to the interpretation of the city developed, more graphically, by the cartographers of the time. These representations were based on the Nuremberg map in which the central square contains an image of a sacrifice and at the edge a Hapsburg banner. But in later engravings of the city, these elements have disappeared or have been transformed. This is particularly significant in the Venetian landscapes of Tenochtitlan, where a more civic and peaceful city is seen whose order and urbanity are signs of its good government in a similar way to representations of the Republic of Venice. This is the case of Benedetto Bordone's *Isolario* (1528), whose depiction of Tenochtitlan was imitated in many engravings – with slight modifications – in the sixteenth and seventeenth centuries (Horodowich 2018, 182-189). Thus, although the most common allegory of the Americas in cosmographical works was the image of uncivilised cannibals, there was this other more positive representation of their most important cities such, as Mexico (Davies 2016, 228-230), creating a counter-narrative to imperial denigration both in discourse and in graphical depiction.



Figure 2 – *Libro di Benedetto Bordone nel qual si ragiona de tutte l'isole del mondo*. Venice, 1528.
 Courtesy of the Library of the University of Seville

4. Knowledge of the New World in the Old World

In his *De decimis*, La Vera Cruz had opposed the secular clergy obtaining tithes from indigenous peoples. As a consequence, the archbishop prevented its printing and denounced Alonso to the Inquisition and he was summoned to the Metropolis in 1561 (Grijalva 1624, 95v). For his part, Alonso had begun to make arrangements to publish his texts in the Peninsula. Although the publication of his *De decimis* was unsuccessful, his treatise on marriages and his complete course of philosophy – composed of the *Recognitio summularum*, *Dialectica resolutio* and *Physica speculatio* – fared better, as both were approved by the Castilian Council and then printed in Salamanca in 1562. In the case of the *Physica Speculatio*, the new edition is virtually the same as the first, with the exception that Campanus' treatise is omitted.

Apparently, La Vera Cruz's treatise was well received at his *alma mater*, since one more edition was released in 1569. On this occasion, the publication licences were requested by the Augustinian procurator, Vicente de Quintanilla. The Augustinian order not only supported Alonso's work but even agreed to use his texts in the order's art courses (Herrera 1652, 339). This new edition was printed by two of the most important families of printers based in Salamanca who had already published earlier texts of his. It was financed by Simón de Portonariis and printed by Juan Bautista de Terranova, which seems to indicate a larger print run. In this edition, the contents of the *Physica speculatio* were expanded, especially its book *De coelo*, in which Alonso developed in greater detail both his views on celestial and geographical questions.

La Vera Cruz described the number and constitution of the celestial spheres and their movements. He narrated how throughout history different heavens or spheres had been established on the basis of the movements observed and attributed to the stars. He said that to the already defined eight Aristotelian spheres, Hiparcus and Ptolemy introduced another one, but unlike Sacrobosco and Campanus, Alonso included one more sphere, established by Thabit ibn Qurra in the ninth century and preserved at the court of Alfonso the Wise. In this way, La Vera Cruz recognised ten celestial spheres, each one with its own movement. He assumed the idea that planetary spheres are composed of various eccentric orbs and epicycles. Although these mechanisms had already been proposed since Ptolemy and taken up by Sacrobosco, in the second half of the fifteenth century, George Peurbach offered a more systematic explanation of them in his *Theoricae Novae Planetarum*. Contrary to the interpretation that conceived celestial spheres as instruments to 'save the phenomena', Peurbach's text contributed to understanding them as real and not just as imaginary devices (Barker and Goldstein 1998; Barker 2011). Following this interpretation, La Vera Cruz believed that celestial spheres, including eccentrics and epicycles, were real (1569, 230). His case proves, contrary to what Gaukroger argues (2006, 120), that not only astronomers but at least a few natural philosophers adopted this realistic approach at the time.

La Vera Cruz also developed in more detail themes on the terrestrial sphere, mainly addressing the contours of both coasts of the American continent. He reviewed several places on the Atlantic coast, from the northern region of Labrador to the Strait of Magellan. Then he examined the South Sea, that is, the Pacific Ocean, referring to various points from the Strait of Magellan to Santa Maria in California, which he said was the end of the discovered land, without speculating on the further shape of the continent. Although it lacks a map, La Vera Cruz's account goes running through the maritime places ('per loca maritima discurrendo') of both American coasts, referring to the latitudes of different sites and the distance between them, providing valuable practical information (1569, 220-225). María Portuondo has characterised this type of data as part of the cosmographical knowledge that the Hispanic empire tried to control and keep secret (2009, 106). How can we explain the fact that there was no problem over including this information in his treatise?

It has been said that it was not until the middle of the sixteenth century that there was a renewal of interest in prose geography (Mayhew 2001, 354). The *Historia General de las Indias* of Francisco López de Gómara, which described the contours of America, was printed in 1552 and, despite being subsequently banned in Spain, it continued to be published abroad. Even though other Hispanic treatises offered some descriptions of the New World, these were rather general, as in the case of the *Fragmentos matemáticos* of Juan Pérez de Moya (1567, 325-328). A more detailed 'description' of the New World is found in Jerónimo Girava's *Cosmographia y Geographia* printed in Venice in 1570 although in Spanish. Despite censorship, there must have been a need for texts on American geography in the Hispanic milieu. For instance, both

Gómaras and Girava's descriptions were incorporated into the 1575 edition of Peter Apiano's famous *Cosmographia*, printed in Spanish in Antwerp. Moreover, the appeal of these accounts is evident from references on title pages. The 1569 edition of the *Physica speculatio*, whose cover announced that the description of the American coasts was desired (*desiderabantur*), is not an exception. That Alonso's treatise was written in Latin might have facilitated its publication since, as José Pardo has pointed out, the approval was based on elitist and discriminatory criteria that often prohibited works in contemporary Romance languages while being more tolerant of those written in Latin (2003, 15).

Alonso's retrieval of other recent geographic reports may also have helped him to circumvent censorship. Among these reports is that of the explorations led by Miguel López de Legazpi in the Philippines, from which Andrés de Urdaneta discovered the route back across the Pacific Ocean. More importantly, La Vera Cruz mentioned the measurements carried out by Urdaneta and Martín de Rada, another Augustinian, for determining the longitude of the Philippines. This was a long controversial issue between the Spanish and Portuguese. At that time, it was discussed at the Madrid court by authors like Alonso de Santa Cruz and Urdaneta, for instance, at a meeting of cosmographers in 1567 at which Alonso was present. In his book, he reminded the reader that his coreligionists had established that the Philippines were, according to the Treaty of Tordesillas, under Spanish jurisdiction. He specifically mentioned the measurements made by Martín de Rada on the Cebu Island using the Alphonsine Tables and, moreover, the Prutenic Tables of Erasmus Reinhold – in accordance with the Neoteric Copernicus ('iuxta Neotericum Copernicum', Vera Cruz 1569, 224 and 234). Reinhold belonged to a group of Wittenberg authors who used Copernicus' calculus – because of its greater precision and simplicity – but did not adopt his system. Rada's use of Copernicus, on the other hand, was not only theoretical but also had important practical and political implications. His measurements determining the Spanish jurisdiction over the Philippines were very valuable for the Crown, which most probably welcomed the fact that these ideas were elaborated in Alonso's book.

In addition to the Hispanic expansion in Asia, La Vera Cruz also referred to the situation in North America, more specifically to the expulsion of the French settlers from Florida by Pedro Menéndez (1569, 220-223 and 234). In these cases, unlike his *relectio* on just war, he supported the papal division of the new lands between the Spanish and Portuguese – within the geopolitical chessboard of his time, he was obviously on the Hispanic side. The Metropolitan government was almost certainly interested in spreading the news about the expansion of its empire and the work of La Vera Cruz could serve this end. Although it contained information considered secret, the fact that most of its geographical references were attributed to the Spaniards could be seen as a declaration that these territories belonged to the Crown of Castile. As has previously been pointed out, Alonso was not against Spanish expansion per se, but against its despotic character. Thus, his cosmographical reports were not so far removed from the view of the world that the Metropolis intended to impose.

Another factor that may have helped La Vera Cruz's treatise to be approved is the author's links with writers, such as Bartolomé de las Casas, Luis de León and Jerónimo Román, who had previously crossed the limits of orthodoxy, and with others connected with revising of books, such as Arias Montano and Juan de Ovando, the main promoter of the reforms of the time (Adorno 1993, 277). In fact, the *Physica speculatio* was the first scientific treatise printed in Salamanca to be revised by the Council of Castile, according to the pragmatics of 1558 (Ezquerro 2014, 298). It was also printed at a time when the Crown's need for a better understanding of the Hispanic Indies was evident, but before the reforms established by Juan de Ovando (Portuondo 2009, 115-118). As well as encountering no problems with

publication, the 1569 edition of the *Physica speculatio* probably circulated more widely than the earlier edition due to the lack of geographical information about the Americas in the Hispanic world.

In 1573, La Vera Cruz's complete philosophy course was printed once again in Salamanca. In this new edition, the *Physica speculatio* treatise is practically the same as that of 1569, except for minor additions. Despite being printed in Salamanca three times, we still do not know the impact of Alonso's work on the European intellectual milieu, but we can speculate on its possible influence on the ideas of his time. The theory that celestial matter is not different from terrestrial matter may have influenced some authors who were beginning to break with the sharp division between the two regions, such as the Salamanca professor Jerónimo Muñoz or the Augustinian Diego de Zuñiga. His geographical references may have been useful for practical matters and for the dissemination of Spanish colonisation. Conversely, his positive assessment of the indigenous peoples may have helped to counteract the hegemonic cosmographical view that the natives were inferior to Europeans. For instance, the Augustinian Jerónimo Román, in his *Repúblicas del Mundo*, affirms that the indigenous government in the Americas was 'in no way different from a very good republic' (Vera Cruz 1575, 385v).

5. *Back to a New World Perspective*

During his return to the Iberian Peninsula, La Vera Cruz continued his defence of the indigenous peoples and religious orders. He supported the ideas of Bartolomé de las Casas while defending the indigenous exception to tithes (Quijano 2017, 118). This was related to his opposition to the growing power of the secular clergy in the New World at the expense of the mendicant orders. Although La Vera Cruz recognised Spanish rule, he continued to uphold local governments against centralised powers. This judgement is reflected in his writings, but also in his actions within the different government structures. For example, within the reforms promoted by Juan de Ovando for the government of the Indies, La Vera Cruz was invited to stay in the court as General Commissioner of New Spain, Peru and the Philippines. Yet he declined the offer, as well as offers of a bishopric. Alonso's resistance to these assignments contrasts with his constant participation in the direction of the Augustinian province of New Spain and his role as prior in the convent of San Felipe el Real in Madrid (Basalenque 1673, 38v). This seems to indicate that his opposition was not to the administration's work, but to the government of New Spain, Peru and the Philippines being directed hierarchically and centrally from the Metropolis.

Alonso's preference for locally directed government can be confirmed, paradoxically, by the posts he held when he finally returned to the New World in 1573. He was Augustinian Vicar General of New Spain, Peru and the Philippines, and he was also Visitor – that is, he had the role of carrying out visits to supervise the administrations of those provinces. But La Vera Cruz himself said he accepted this position – which he held until the end of his life – with the intention of never using its prerogatives so that no one else would be able to do so. He took the view that it was conducive to the preservation of these provinces that there should be no visitors (Grijalva 1624, 189r). He believed that a locally run administration without centralised inquisitorial supervision was more desirable, which is consistent with his statement that dominion and government rest ultimately with the community.

When Alonso returned to New Spain, he was accompanied by seventeen friars whose work was that of evangelisation. He also brought with him sixty crates of books, among which was probably the most recent edition of his philosophy course. In 1575, Alonso was elected for the fourth time as Augustinian Provincial and, in the same year, he founded the Augustinian convent

of San Pablo in Mexico City. There, he built a rich library with the books he had brought from the Old World, which he complemented with maps, celestial and terrestrial globes, astrolabes, planispheres and other instruments (Grijalva 1624, 153v-154r). Until the end of his life, while living in Mexico City, La Vera Cruz exchanged letters and ideas with the Augustinian missionaries of the Philippines. One of them was Martín de Rada, with whom he exchanged information on evangelisation and on geographic and social matters in general. In his letters, Alonso asked for Rada's cosmographical texts while Rada requested mathematical books. They also discussed political issues, in the course of which Rada adopted La Vera Cruz's view that although the conquest had been illicit, it was not convenient to abandon the indigenous peoples at that moment (Folch 2021, 175-176 and 200-201). Like Alonso in New Spain, the Augustinians in the Philippines often defended the natives from the settlers' abuses (Li 2016, 244).

In the last years of his life, La Vera Cruz was concerned not only with the affairs of New Spain but also with evangelisation in the Philippines. Thus, the controversies of his first years in the New World were recreated on the other side of the Pacific Ocean. If earlier he had focused on the legitimacy of local indigenous governments, now the central role of New Spain as a link and intermediary between the Metropolis and the Philippines became equally important. Once again, neither the idea of the new world order nor the practical interests of La Vera Cruz coincided with the hegemonic view.

6. *Concluding Remarks*

Throughout this article, we have tried to highlight some of La Vera Cruz's ideas that went beyond the hegemonic thought of his time. Relying on alternative traditions and on his own experience in New Spain, Alonso not only incorporated the new lands into European frameworks, but he also developed a local perspective. He transferred to the New World the natural and social values that Europe claimed for itself, giving a central place to the Americas and their societies. This can be seen in his defence of the qualities of the Americas and their inhabitants as well as in his political ideas, particularly the idea that every government must have the community as its foundation and purpose. He defended both indigenous government and the local administration of his order, promoting the interests of the local communities as a whole, including Europeans and indigenous peoples. Thus, La Vera Cruz developed a counter-narrative to imperial claims and the prevailing cosmography of the time and, in doing so, offered an alternative way of conceiving the emerging new world in which the central and positive qualities are attributed to the New World and its local communities. His thoughts on the Americas and the world were situated in the midst of the disputes between local and Metropolitan visions and interests and in the tensions between them.

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