

Spanish Paracelsus Revisited and Decontaminated*

por

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I. *The State of the Question*

The first publication that treated Paracelsus (1493-1541) and Paracelsianism in Spain appeared about forty years ago.¹ The interpretation at that time held that the Inquisition prevented the development of Spanish science. However, despite the Inquisition's ban on Paracelsus' books, Paracelsians and Paracelsianism existed in Spain. While this seems like a clear contradiction—Paracelsus was censured, but Paracelsianism existed—this interpretation dominated later publications,² due, at least partially, to certain structural features of Spanish history of science.³

About a decade ago, however, the historiography began to change. Arguments now prevalent within Spanish history of science concerning Paracelsus no longer reflect

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¹ José María López Piñero, "Alquimia y medicina en la España de los siglos XIV y XVII: La influencia de Paracelso," in J. M. López Piñero, ed., *Medicina moderna y sociedad española, siglos XVI-XIX*, (Valencia: Cátedra e Instituto de Historia de la *Medicina*, 1976), 17-59.

² See, for example, José María López Piñero, "Química y medicina en la España de los siglos XVI y XVII," *Cuadernos de historia de la medicina española* 11 (1972): 17-55; José María López Piñero, "Paracelsus and His Work in 16th and 17th Century Spain," *Clio medica* 18 (1973): 113-41; and Allen G. Debus, "Paracelsus and the Delayed Scientific Revolution in Spain: A Legacy of Philip II," in Allen G. Debus and Michael T. Walton, ed., *Reading the Book of Nature: The Other Side of the Scientific Revolution* (Kirksville: Sixteenth Century Journal Publishers, 1998), 139-52.

³ Spanish history of early modern science is still a young discipline, under institutionalized within academe. It started under the dominion of the history of medicine, which hardly encouraged its development. Early modern science has also been mainly structured around two chronological periods: that of Philip II with his scientific censorship and ties to Europe and that of a century later focused on efforts by the *novatores* to overcome the supposed scientific delay occasioned in those years. Historians of early modern Spanish science have also failed thus far to carve their own niche within the international community of historians of early modern science.

a picture more assumed than documented. Whereas the former interpretation held that book censorship caused a delay in scientific transmission to Spain that then resulted in a serious retardation of science into the late seventeenth century, it is now known that the supposed Spanish censorship of Paracelsus was largely anecdotal. This new analysis, initiated by Rodríguez Guerrero, was quickly supplemented by new contributions, new considerations, and new historiographical perspectives.⁴ With the questions of censorship settled, the analysis shifted to the question of whether or not there were followers of Paracelsus in Spain analogous to those in, for example, in France.⁵ The conclusion? Paracelsianism did not exist in Spain, owing largely to the contributions medieval Spanish alchemists made to alchemy in Europe.⁶

The historical picture is thus now different from that of even fifteen years ago. Neither Paracelsus' purely medico-chemical nor his purely scientific doctrines were ever censured in Spain. Nor was there a group of physicians who could, strictly speaking, be called Paracelsians. Various factors have shaped this new interpretation. A consideration of the religious climate in Spain reveals, first, that Paracelsus was not persecuted there because of his religion, second, that science as such was not censored there by the Inquisition and, third, that Paracelsus' works were not universally banned on the peninsula. Fourth, the peninsula also supported a long tradition of "doctors of alchemy" such as Arnold of Villanova (ca. 1238-ca. 1310), (the pseudo) Ramón Llull (ca. 1232-ca. 1315), and Johannes of Rupescissa (?-1366), all of whom Paracelsus considered his teachers. Fifth, and finally, Spain maintained a tradition in distillation from at least the Middle Ages that involved the preparation of remedies as well as alchemy. This chapter will analyse how each of these research strands has reshaped our understanding of the "Spanish Paracelsians."

⁴ See José Rodríguez Guerrero, "Censura y Paracelsismo durante el reinado de Felipe II," *Azogue* 4 (2001), <http://www.revistaazogue.com/inquisicion.htm> (accessed 26 October, 2010) as well as Mar Rey Bueno, "Los paracelsistas españoles: Medicina química en la España moderna," in Víctor Navarro Brotons and William C. Eamon ed., *Beyond the Black Legend: Spain and the Scientific Revolution* (Valencia: Instituto de Historia de la Ciencia y Documentación "López-Piñero," 2007), 41-55.

⁵ Didier Kahn, *Alchimie et Paracelsisme en France (1567-1625)* (Genève: Droz, 2007).

⁶ Miguel López Pérez, "La influencia de la alquimia medieval hispana en la Europa moderna," *Asclepio* 59 (2) (2002): 215-33.

II. *The Religious Problem*

Paracelsus died neither an Anabaptist nor a Protestant, and belonging to no Central European political faction. Rather, he died a member of the Catholic Church.⁷ Although it was certainly possible for a Catholic author to be read as a Protestant heretic,⁸ the fact that Paracelsus was Catholic was not lost on various defenders of the man and his thought in Spain through the seventeenth and even well into the eighteenth century. For example, Fra Andrés de Villacastín (fl. 1680s) supported Paracelsus, acknowledging that

Aurelio Theophrasto Paracelso hizo Escuela de la Chymica, enseñándola públicamente en Alemania su patria, en la Ciudad de Basilea, el año de 1493. ... En la Chymica fue famoso, aunque le condenan quines no han visto una hoja de sus escritos tapan su ignorancia con que fue Herege, como si Hippocrates; y Galeno hubieran sido Catholicos; y siguenlos otros griegos, Arabes y de los Latinos a los Judios, como Zacuto, y otros. No está el daño en la religión que siguió cada uno de ellos. Que para ello tiene doctores la Santa Iglesia nuestra madre, y España la S. Inquisición.⁹

Similarly, Benito Feijoo (1676-1764) continued to recognize Paracelsus as a true Catholic into the first quarter of the eighteenth century. In his words:

⁷ It is well known that Paracelsus criticized Martín Luther (1483-1546), John Calvin (1509-1564), Martin Bucer (1491-1551), and Ulrich Zwingli (1484-1531). See Carlos Gilly, “‘Theophrastia sancta’: Paracelsianism As a Religion in Conflict with the Established Churches,” in Ole Peter Grell ed., *Paracelsus: The Man and His Reputation, His Ideas and Their Transformation* (Leiden-Boston-Köln: Brill, 1998), 151-86.

⁸ See *Regla 2* of the 1564 Trent Index. *Regla 3* from the 1632 Index embraces a more literal formulation regarding the pontifical model: “Prohibense los libros de los Heresiarcas, assí de los que después del dicho año [1515] o fueron Cabezas, o Caudillos de hereges. como Martín Luthero, Huldrico Zuinglio, Juan Calvino, Baltasar Pacimontano, Gaspar Schwenchfeldio, i otros semejantes de cualquier titulo, o argumento, se prohiben del todo. Mas no se prohiben los libros de católicos en que andan y están insertos fragmentos o tratados de heresiarcas, contra quien escriben.” The Index of 1640 adds: “Ni de los dichos libros y Tratados se ha de borrar el nombre de los dichos Heresiarcas, pues para refutar sus errores se permite nombrarlos, como también en los libros de Historia, lo qual se declara por evitar escrúpulos.”

⁹ “Aureolus Theophrastus Paracelsus created a chemical following, teaching it [chemistry] in his German homeland in the city of Basel in 1493. ... He [Paracelsus] was famous in chemistry although he is condemned by all who have not seen a page of his writings and [who] cloak their ignorance by saying that he was a heretic—as if Hippocrates and Galen were Catholics [as well as] those who follow the Greeks, Arabs, Latins and Jews [such] as Zacuto and others. The issue is not the religion followed by each of them, for the Holy Church has doctors, and Spain the Inquisition [to correct them]” Andrés de Villacastín, *La Chymica despreciada*, (Granada: Antonio Torrubia, 1687), 6-6v.

*“Católico fue también Paracelso, pues aunque su audaz ingenio le hizo caer en algunos errores, no fue Hereje; porque le faltó la pertinacia, y así como Católico fue enterrado en la Iglesia de S. Sebastián de la Villa de Salisburgo, donde está decorado su sepulcro con tan glorioso epitafio, que hasta ahora ningún Médico Hipocrático, o Galénico le logró tan ilustre”*¹⁰

Despite the persistence of this position, it has nevertheless been argued that the repressive monarchy of Philip II (1527-1598) sought and effected the exclusion of Paracelsus' thought from the Spanish intellectual panorama on the basis of its heretical, non-Catholic nature. This supposed cause-and-effect relationship has also been used to present Paracelsus as an innovator whose arguments were in opposition to positions held within the repressive regime.¹¹ As Allen Debus put it: *“with the attempt to prevent the importation of suspected foreign literature, the decline of universities, and an inherent resistance to innovation, it is not surprising that there were few Spanish followers of Paracelsus in this period.”* He concluded that *“it seems certain that Philip II's effort to maintain Spain as a Roman Catholic country affected the development of Spanish science.”*¹²

¹⁰ “Paracelsus was also a Catholic, and while his audacious ingenuity caused him to fall into error, he was not a heretic because he was not intransigent; and, as a Catholic, he was buried at the church of St. Sebastian, at Salisburg, where his tomb is decorated with a glorious epitaph such as no physician—Hippocrates or Galen—has achieved to this day.” Benito J. Feijoo, “Respuesta al discurso fisiológico-médico del Dr. D. Francisco Dorado por el R.P. Mro. Fr. Benito Feijoo, que la dedica a los gloriosos mártires San Julián, y Santa Basilisa,” in Benito J. Feijoo, *Justa repulsa de iniquas acusaciones* (Madrid: Pantaleón Aznar, 1727), 98. Others also defended Paracelsus as Catholic in the seventeenth and eighteenth centuries, among them, Doctor Guillén Pierres, Diego Torres de Villarroel (1693-1770), and at least some on the faculty of the Free College of Advanced Studies in Buenos Aires. See Guillén Peirres, *Sátira contra el Doctor Guillém por poner en el número de los precitos al cristiano Paracelso: Escrita por la ylustre quanto nunca bastantemente celebrada Academia de Monicongo de esta Corte*, Dresden, Sächsische Landesbibliothek, Ms. Oa 1, BL.68r-69v (reedited in Joachim Telle, *Paracelsus im Gedicht. Theophrastus von hohemheim in der Poesie des 16. bis 21. Jahrhunderts*, (Stuttgart: Guido Pressler Verlag, 2008), 89-90); Diego Torres de Villarroel, *Carta de el gran Paracelso al gran Piscator de Salamanca: Notas y advertencias a su viage fantastico, y correo del otro mundo*, (Madrid: Impr. de Bernardo Peralta, 1726); and *Colegio libre de estudios avanzados* (Free College of Advanced Studies) in Buenos Aires, Argentina where Paracelsus was applauded in 1732. See “Courses and Lectures,” vol. 5: “Because Paracelsus was a noble and good man, his life did not have another purpose, according to he declared in his testament: ‘than the cure of sick persons, and of that miserly and needy people.’”

¹¹ We must not forget that the figure of Paracelsus is somewhat of an historiographical construction. See Pamela H. Smith, “Paracelsus as Emblem,” *Bulletin for the History of Medicine* 68 (1994): 314-22; Gilly, “‘Theophrastia sancta,’ note 8; and Stephen Pumfrey, “The Spagyric Art; or the Impossible Work of Separating Pure from Impure Paracelsianism: A Historiographical Analysis,” in Ole Peter Grell, ed., *Paracelsus: The Man and His Reputation, His Ideas and Their Transformation* (Leiden: Brill, 1998), 21-51.

¹² Debus, “Paracelsus and the Delayed Scientific Revolution in Spain,” 149 and 160, respectively; and Allen G. Debus, “Paracelso y el retraso de la renovación científica en España: El Legado de Felipe II,” in Javier Puerto *et al.*, *Los Hijos de Hermes* (Madrid: Corona Boreales, 2001), 244 and 258. Debus

The innovations associated with the name of Paracelsus are, however, more fictitious than real. No inquisitorial trials targeted Lutherans for following Paracelsus' ideas. No one was tried in either the sixteenth or the seventeenth century for being Paracelsian and Calvinist.¹³ While some inquisitors may have held that Lutherans and Lucifer were related,¹⁴ religious persecution in Spain brought about fewer deaths than in the rest of Europe.¹⁵ Moreover, it was the Calvinist courts that first censured, and later brought about, the deaths of both Michael Servetus (1511-1553) and Sebastian Castellion (1515-1563), the latter for his defense of the freedom of conscience over spiritual coercion.¹⁶

Still, religious pressure did always go hand in hand with the politics of the Spanish Hapsburgs. Combating reformist ideas on Spanish territory became a high priority for the State, which threw all of its administrative support behind Catholic orthodoxy. For example, in a move that was both politically and theologically motivated, Philip II granted to the Holy Office of the Inquisition the necessary powers to repress all deviations from that orthodoxy as a way to maintain the geopolitical union of his territories.¹⁷

III. *The Censorship of Science and of Paracelsus in Spain*

Efforts fully to understanding the repression practiced during the reign of Philip II have naturally resulted in changing interpretations not only of the nature of scientific censorship in Spain but also of censorship more broadly speaking. New scholarship has brought a new understanding of the relationship between censorship and freedom, the

insisted on this idea a few years later in Debus, "Iatrochemistry and the Chemical Revolution," 51-66, see especially p. 57: "*In Spain foreign influences were feared by Philip II because of the spread of the religious Reformation ... The works of Paracelsus were placed on the Spanish 'Index' and medical education remained uncompromisingly Galenic.*"

¹³ Rodríguez Guerrero, "Censura y Paracelsismo durante el reinado de Felipe II."

¹⁴ For example, in 1585, Bachelor Montoya, an inquisitor from Córdoba, denounced: "Entre unos tratadillos catholicos contra Luthero halle esa epistola de Lucifer escrita a sus amigos que estan en el mundo enemistados con la fee y la Yglesia Catholica Romana." National Historical Archive (Madrid-Spain) (hereafter AHN), Inquisición, 4436, exp 37.

¹⁵ Catholicism was prohibited in England for more than a century, and Henry VIII killed more Catholics than the Spanish, German, and Italian Inquisitions combined. Compare Henry Kamen, *La Inquisición española: Una revisión histórica* (Crítica: Barcelona, 1999).

¹⁶ Stephan Zweig, *Castello contra Calvino: Conciencia contra violencia* (Barcelona: El Acantilado, 2001).

¹⁷ When his father Charles V abdicated in 1556, his kingdom was split between the Hapsburg and Spanish Empires. Philip II sought, through his alliances with the Catholic Church, to avoid a similar fate for his realm.

press, culture, and ideological control as well as new ways of contextualizing humanism in Spain.¹⁸ It is no longer possible to assert, for example, that the Inquisition brought “the definitive implantation of a series of religious, mental, and intellectual habits.”¹⁹ Moreover, and more seriously, this newer scholarship has called into question the work of earlier Spanish historians on the censorship of science in Spain. No longer can the Inquisition be blamed for all the evils visited on Spain and Spanish science.²⁰

The works of Erasmus (1466-1536) could be bought in bookstores in Barcelona in the 1590s, and it was possible to read Luther before his works were banned. Censorship simply failed to cut “communication with the different European schools of thoughts.”²¹ No country, including Spain, could completely close out the Reformation.²² Censures enacted in 1558 and 1559, for example, failed to bring about cultural isolation, as they only affected Castile, and not Valencia, Navarre, Catalonia, or Aragon.²³ Moreover, Castilian booksellers printed, bought, and freely introduced books from Toulouse and Lyon.²⁴ Despite this traffic, 90% of the books included in the sixteenth-century indexes never entered Spain, and, even if they had, they would not have been read, since only 8% of all indexed books were written in Spanish.²⁵ The censorship of printed books—ostensibly one of the ways to ensure a Catholic empire as opposed to one contaminated by Protestant heresy—thus proved ineffectual in Spain.²⁶

It is now clear that science was actually one of the cultural products that censorship affected the least, despite the fact that the earlier historiography of Spanish science had

¹⁸ See, for example, Antonio Sierra Corella, *La censura de libros y papeles en España y los índices y catálogos españoles de libros prohibidos y expurgados* (Madrid, 1947); Antonio Sierra Corella, “Aportaciones para la historia externa de los índices expurgatorios españoles,” *Hispania* 47-12 (1952): 253-300; and Antonio Sierra Corella, “Historia interna de los índices expurgatorios españoles,” *Hispania* 56-XIV (1954): 411-61.

¹⁹ Virgilio Pinto Crespo, “Thought Control in Spain,” in Stephen Haliezer, ed., *Inquisition and Society in Early Modern Europe* (London and Sydney, Croom-Helm, 1987), 171-88 on p. 185.

²⁰ Henry Kamen, “Censura y libertad: El impacto de la Inquisición sobre la cultura española,” *Revista de la Inquisición* 7 (1998): 109-17.

²¹ “la comunicación con las diferentes Corrientes europeas.” José Pardo Tomás, “Autores médicos en los índices inquisitoriales españoles del siglo XVI,” *Dynamis* 5-6 (1985/1986): 201-14 on p. 201.

²² In fact, the Protestant position of Elector Frederick in the Palatinate from 1560 was much harder. William Monter, “Controles religiosos y sociales en los países germánicos en tiempos de las Reformas,” *Revista de la Inquisición* 2 (1992): 121-33.

²³ M. J. Torquemada Sánchez, “Censura de libros y barreras aduaneras,” in *Perfiles jurídicos de la Inquisición española* (Madrid, 1992), 517-527

²⁴ General Archive of Simancas (hereafter AGS), Estado K 1502, 9 and 15.

²⁵ On these assertions, see Kamen, “Censura y libertad.” The major contributors to this new interpretation have been Professor Martínez Bujanda and his research team.

²⁶ Mar Rey Bueno, *Inferno* (Madrid: Aguilar, 2007).

portrayed a sixteenth-century Spain firmly closed to science.²⁷ First editions of practically all books printed on medicine, alchemy, astronomy, and botany were in royal (for example, El Escorial) or private libraries. Numerous books on science were also published in Spain by Spanish or foreign authors living in Spain.²⁸ Thus, books on science, while purged were not prohibited. They actually represented 7.6% of sixteenth-century printed books and 7% of those printed in the period 1684-1785.²⁹ Even books published by heretics could be read, if they were devoted to nonreligious topics such as science:

Asi mesmo se prohiben los libros y obras de otros hereges, que no son cabeças, inventores ni autores de las heregías, si de principal intento tratan de religión, aunque no contengan errores. Pero bien se permiten los libros que estos tales han compuesto de historia y otras facultades, siendo primero examinados y corregidos por el Santo Oficio³⁰

Given these realities, what role did censorship play in Spanish science in the sixteenth century? Censored texts and authors have all been enumerated;³¹ the censors

²⁷ That closure, the argument went, resulted in a stultification of Spanish science, highlighted at the end of the century by a group of *novatores* who argued urgently for a revivification of Spanish science. This fatalistic discourse suggested that science always came to Spain from the outside, that there was no science in Spain. It overlooked the fact, for example, that the steam engine had a late sixteenth-century antecedent in Philip II's Spain. It also ignored the positioning system devised by Spanish cosmographers using measurements of the same solar eclipse in America, Asia, and Madrid in conjunction with instruments of computation and correct calculations of spherical trigonometry. See Nicolás García Tapia, *Técnica y poder en Castilla durante los siglos XVI y XVII* (Valladolid: Junta de Castilla y León, 1989).

²⁸ Books on science were written by Juan Frago, Andrés Laguna, Simón Tovar, Manuel Acosta, Andrés Alcázar, Juan Plaza, López de Velasco, García de Céspedes, etc. Clusius, Vesalius, Fioravanti, and Mercator worked in Spain, and Galileo Galilei wanted to work there. See José Manuel Matilla, *El caballo de bronce: La estatua ecuestre de Felipe IV. Arte y técnica al servicio de la monarquía* (Madrid: Real Academia de Bellas Artes de San Fernando, 1999).

²⁹ See Susana Cabezas Fontanilla, "La biblioteca de libros prohibidos del Consejo de la Suprema Inquisición conservada en la Biblioteca Nacional," *Espacio, tiempo y forma* 15 (2002): 105-44.

³⁰ "Also the books and writings of heretics who are leaders, innovators, or authors of heresy are not permitted if the main topic is religion, even if they [contain] no religious errors. But the books they have written on history and other matters are allowed, if [they] are first censored and corrected by the Holy Office. Index of 1583 and 1640, rule 3; also taken from the Index of Trent of 1564. It is Rule 2 of the 1643 Index: "Books of other heretics touching religion, and its controversial points are totally banned. But [books] are permitted that do not deal with religion, being first reviewed and approved by pious and learned theologians by your command ...". Índice de 1583 y 1640, regla 3, tomada también del Índice tridentino de 1564. Es la regla 2 del índice de 1632: "Los libros de los otros Hereges que de propósito tratan de Religión, i puntos controversos della, se prohíben del todo. Mas bien se permiten los que no tratan della, siendo primero examinados y aprovados por Teologos píos y doctos, por nuestro mandato..." Nicolás de Eymerich, *Directorium inquisitorum* (Rome, 1587), 2, Cap. 4. Comm. 3, 92: "Quorundam tamen haereticorum libri qui ex professo de religione non tractant, aut conscripti sunt ab haereticis dum catholicis forent, examinati et approbati ab Inquisitoribus permittuntur, iuxta dispositionem regulae 2 indicis librorum prohibitorum. quae donec aliud satuat, tuto observare possunt inquisitores."

³¹ See Mariano and José Luís Peset Reig, "El aislamiento científico español a través de los índices del Inquisidor Quiroga de 1583 y 1584," *Anthologica annua* 16 (1968): 25-41 and José Pardo Tomás,

themselves are known; the parts of books actually censored have been determined. This, however, provides only part of the story. It has yet to be understood and explained how Philip II's imperial mandate was applied in practice. Neither is it clear what place "scientific" activities occupied in the mandate.³² Studies are also needed that deal more fully with censored books dealing with science.³³ For example, it is known that Amato Lusitano's (João Rodrigues de Castello Branco (1511-1568)) *Curationum medicinalium centuriae...*, published in 1556, was censored.³⁴ The censorship, however, only occurred in 1583, the year of the first Index penned by the Spanish General Inquisitor, Caspar de Quiroga y Sandoval (1512-1595), that is, thirty-three years after the book's publication. It also remains unknown: how many books were in Spain and for how long before being censored, how many people may have read and assimilated the ideas contained in censored books before their censure, and whether books continued to arrive in Spain after their censorship. As long as these and similar questions remain unanswered, it will be difficult to make authoritative conclusions about the effectiveness, or lack thereof, of the Inquisition's book censorship on science.

Still other factors must also be considered in order to establish a more accurate picture of scientific censorship in early modern Spain. Why, for example, were the books of the Dutch physician resident in Spain, Moïses Charas (1619-1698), widely accepted and never censored in Spain, despite the fact that he was jailed by the Inquisition and accused of purveying Calvinist propaganda while attached to the house

"Autores médicos en los índices inquisitoriales españoles del siglo XVI," *Dynamis* 5-6 (1985-1986): 201-14 on p. 202.

³² Much hard work remains to be done to establish similarities and differences between the topics of Imperial science and "secret science." See María Portuondo, *Secret Science* (Chicago: University of Chicago Press, 2009).

³³ A certain amount of research has been done on books on topics other than science. See, for example, the following works by Susana Cabezas Fontanilla: "La Biblioteca de libros prohibidos del Consejo de la Suprema Inquisición conservada en la Biblioteca Nacional"; "El Archivo del consejo de la Inquisición ultrajado por Gaspar Isidro de Argüello, secretario y compilador de las instrucciones del Santo Oficio," *Documenta & instrumenta* 2 (2004): 7-22 as well as Juan Rivera, *El origen y fundaciones de las Inquisiciones de España* (Madrid, 1652, BN Mss. 2.278); Virgilio Pinto Crespo, *Inquisición y control ideológico en la España del siglo XVI* (Madrid: UAM, 1983); Bartolomé Bennassar, *Inquisición española: Poder político y control social* (Barcelona: Crítica, 1981); and Antonio Sierra Corella, *La censura en España: Indices y catálogos de libros prohibidos* (Madrid: Cuerpo facultativo de archivos, bibliotecas y museos, 1947).

³⁴ Amato Lusitano, *Amati lusitani ... curationum medicinalium centuriae quatuor, quarum duae priores, ab auctore sunt recognitae, duae posteriores nunc primum editae, uariae omnes multiplicique rerum cognitione refertae. Quibus praemissa est commentatio de introitu medici ad aegrotantem, deque crisi & diebus decretoriis. Acc. ind. rerum memorabilium copiosissimus* (Basileae, H. Frobenius, 1556).

of the Duke of Holland?³⁵ And, what is to be made of the second opinion that Philip II gave in 1562 on the questions of the Index and book censorship or of his personal interest in buying Arabic books in 1578?³⁶ Among other things that merit study and explanation are the facts that a book by Fra Luis of Leon (1527-1591), which was prohibited by the Spanish Index, was approved in Trento in 1563; that heretical books were introduced into Spain via Catalonia in 1578; and that there was commerce in and shipment of heretical books from Spain to Genoa and to the New World in the same year.³⁷ Also worthy of further scrutiny is the fact that intense (although ultimately failed) negotiations took place between censor Benito Arias Montano (1527-1598) and author Jakob Zwinger (1569-1610) first to prevent the censorship of the latter's edition of *Theatrum* and later to publish it.³⁸ Ultimately, although one or more works of a given scientific author may have been censored, an examination of the censored paragraphs reveals that their content had little to do with science. This pattern of censorship of scientific books therefore fails to support the conclusion that science was closed out of Spain.

It is, however, true that the inquisitors had grave doubts about astrology and that they opposed alchemy as it related to astrology and religion.³⁹ As is well known, there were two types of astrology: natural astrology, which sought to understand the divine plan, and judicial astrology, which concerned the forecasting of future events through, for example, the determination of personal horoscopes. That judicial astrology was not officially condemned is reflected in the fact that both Emperor Charles V (1500-1558) and his son Philip II had their horoscopes cast.⁴⁰ In 1584, however, Ignacio de Yqueros, abbot of the monastery of Santa Real Maria of Fitero and qualifier of the Holy Office, sought a ruling on judicial astrology on the occasion of a meeting “*in the Court of His*

³⁵ For documents relating to Moïse Charas's Spanish affair, see AGS, Estado, 3988, 3 (June 8, 1687); AGS, Estado, 3988, 3 (1687-1689); AGS, Estado, 4014, 11 (13 November, 1687); AGS, Estado, 4014, 49 (March 18, 1689); and AGS, Estado, K1655, 105 (June 18, 1687).

³⁶ See AGS, Secretaría, Italia, 1477, 26, ff. 113-115, 1562 and AGS, Secretaría, Italia, 1485, 58, 1578, respectively.

³⁷ See AGS, Secretaría, Italia, 1478, 34, 1563; AGS, Secretaría, Italia, 1411, 39, ff. 49, 50, 211; and AGS, Estado, K1552, A1578, respectively.

³⁸ Montano's efforts to save Zwinger's *Theatrum* are notable, especially given that the book was put on the *Index librorum prohibitorum* of Anvers in 1570. Zwinger refused to reach an agreement with the Spanish royal censor over the substitution of some six or seven pages. For more on this story, see Carlos Gilly, *Spanien und der Basler Buchdruck bis 1600* (Basel: Helbing & Lichtenhahn, 1985); Henry Charles Lea, *A History of the Inquisition of Spain* (New York: MacMillan, 1906-1907), 3: 495; and Henry Charles Lea, *Historia de la Inquisición española*, 4 vols. (Madrid: FUE, 1983), 3: 305 passim.

³⁹ Sagrario Muñoz Calvo, *Inquisición y ciencia* (Madrid: Editora Nacional, 1978).

⁴⁰ *Horóscopo del Emperador Carlos V*, Biblioteca del Monasterio de El Escorial (hereinafter BME), n-I-13 and Archivo Histórico Nacional de Madrid (hereinafter AHN), microfilm 36, doc. 41.

Majesty The King Don Phelipe on the new catalogue ... of prohibited books."⁴¹ A physician, one Gochapay, pled strongly in favor of judicial astrology, invoking in its defense Saint Thomas, Saint Bonaventura, and even the Apostle Paul:

*“Sentencia es del Apóstol. S. Pablo que los hombres mortales no tenemos saviduria alguna de lo venidero. ... Las causas segundas dependen de las Primeras, que es la Voluntad de Dios. ... Digo que si por adivinación se entiende dezir antes las cosas que estan antes por venir como tengo dicho q es cierto y certissimo q sin fraude, dolo, engaño se puede dezir y saber ahora sea ahora naturalmente con arte dicho ... Si el médico pronostica y predize de la salud y enfermedad, accidentes, pinzias, crisis y muerte del enfermo sin q intervenga el demonio, si el astrologo la carestia, abundancia, pestes y eclipses, si el philosopo (sic) las tempestades y terremotos, no tienen juizios naturales los vientos... luego artes y naturaleza enseñan a adivinar sin obra, ayuda y consejo del demonio, no por esto digamos que el demonio no tenga sembradas muchas artes para presagiar y adivinar, pero estas son conocidas de los astrólogos cristianos. Que se separe lo que es y lo que no es”.*⁴²

Also in 1584, one Fra Hieronymite of Guzmán gave his “*approval of several books on Astrology*”⁴³, and verses appeared by a certain Juan Estadi “*on events that will be in 1588.*”⁴⁴ These nods toward judicial astrology did not, however, prevent the close scrutiny of the work of the esteemed Cornelius Agrippa (1486-1535).⁴⁵

Relative to alchemy, a review of the published Indexes reveals just a single prohibited work on the subject.⁴⁶ Why did the inquisitors seemingly not focus on such

⁴¹ AHN, Inquisición, leg. 4436, exp. 11.

⁴² “It is the Apostle Paul’s judgment that mortals have no knowledge of the future. Second causes depend on the first ones, namely, God’s will. I say that if divination is understood to predict coming things ... [and] it is really true [and] without fraud, negligence, or deceit, it can be natural and [done through] skill. [For example,] a physician predicts the health, illness, accidents, crisis, and death of an ill [person] with the Devil’s intervention; [or] the astrologer predicts shortage, abundance, plagues, and eclipses; [or] the philosopher predicts storms and earthquakes ... then skill and nature both [can] teach [one] to guess without the Devil’s workings. But we say [also] that the Devil has many ways to presage, and these are known by Christian astrologers. [One] must distinguish what is from what is not [natural]” AHN, Inquisición, 4436, exp. 11.

⁴³ AHN, Inquisición, 4436, exp. 41.

⁴⁴ *Ibíd.*

⁴⁵ *Enricus Cornelius Agrippa del. alios etiem videmus usque ad professores videam perorare ibid del. sectae monasticae*, AHN, Inquisición, 4436, exp. 15.

⁴⁶ Geber, *Gebri arabis philosophi ac alchimistae acvtissimi. De alchemia traditio summae perfectionis in dúos libros divisa. ítem: Líber investigationis magisterii eiusdem* (Argentorati: Zetner, 1598). See *Libros prohibidos por el Consejo Supremo y el Tribunal de Corte, Toledo, 1588*; AHN,

texts?⁴⁷ The *intelligentsia* may have felt an affinity towards alchemy since it was viewed as a fundamental and practical part of natural philosophy. Thus, to ignore alchemy meant to ignore a large part of natural philosophy and thereby consciously to restrict basic knowledge. Alchemy in this context may have meant its conceptual and philosophical ramifications, but alchemy's magical and hermetic applications were equally immune to the inquisitors' scrutiny as were the alchemical books of Philip II, which were purged of objectionable content on more than one occasion.⁴⁸

A review of the holdings of some of the major libraries shows, moreover, that established collections lacked neither books on alchemy nor texts on natural philosophy. Consider, for example, the general archive of the Toledo Cathedral (AGCT). By 1591, it contained alchemical books by Bartholemew the Englishman, Hermes Trismegistus, Maffeo Vegio, and Geber,⁴⁹ and these were not the library's only alchemical holdings. A note written on the back cover of *Suma del perfecto magisterio* recorded that "they took for the Inquisition the following books" and listed five books, the last of which was *Rosarium arnaldi de villa nova*, a well-known alchemical text.⁵⁰

Inquisición, lib. 30. *Lista de libros mandados recoger, prohibir y expurgar en la Inquisición de Toledo desde 1583 a 1600*; AHN, Inquisición, leg. 4426, exp. 31.

⁴⁷ Sagrario Muñoz Calvo analyzed four trials of the Inquisition against alchemists, but none of them hinged on the practice of alchemy. Alchemist Alonso de Medrano, for example, compared the theological terms *body*, *matter*, and *soul* with homonymous alchemical words. See Sagrario Muñoz Calvo, *Inquisición y ciencia* (Madrid: Editora Nacional, 1978). On the case of Giraldo París, see Mar Rey Bueno, "Mágicos prodigiosos y verdades acrisoladas: Inquisición, magia, experiencia y conocimiento en el siglo XVII español," *Colorado Review of Hispanic Studies* 7 (Fall 2009): 49-66.

⁴⁸ *Petición del prior de San Lorenzo de El Escorial, Francisco García de Santa María con la que remitió al Inquisidor General la relación de libros prohibidos que había en aquella librería, en la de los párrocos y en las particulares de los monjes y respuesta del Inquisidor*, AHN, Inquisición, leg. 4420, exp. 4. The Inquisitor answered "que se esperase la ida de Arias Montano," in *Órdenes para expurgar los libros de San Lorenzo y licencias para guardar y leer los prohibidos (1597)*, BME, H-I-11, f. 8. Philip II had the largest alchemical laboratory of his day. He also promoted an Academy of Mathematics, a Royal astronomical observatory, a scientific expedition to the New World, navigational instrument contests, and the mining industry as well as astronomy, cartography, navigation, and botany. See David C. Goodman, *Power and penury: Government, Technology and Science in Philip II's Spain* (Cambridge, CUP, 1988), and William C. Eamon, "'Nuestros males no son constitucionales, sino circunstanciales': The Black Legend and the History of Early Modern Spanish Science," *Colorado Review of Hispanic Studies* 7 (Fall 2009) 13-30.

⁴⁹ See AGCT, 96-36; 96-38; 27-8; and 96-35, respectively, and *Index librorum Bibliothecae sanctae Ecclesiae Toletanae*, 1591, Biblioteca Nacional, ms. 13830. Among the books were: *Los 19 libros sobre las propiedades de las cosas de Bartolomé el inglés* (or *The Nineteen Books on the Properties of Things by Bartholomew the Englishman*), *Tratado de la generación de la Piedra de Hermes Trismegisto* (or *Treatise on the Generation of the Stone by Hermes Trismegistus*), Vegio's *Disputatio inter terram solam et aurum* (or *Debate Among the Earth, Sun, and Gold*), and *Suma del perfecto magisterio de Geber* (or *The Highest Perfection of Geber*).

⁵⁰ "Llebaronse a la inquisición los libros siguientes." On Arnold of Villanova and the Inquisition, see Elena Cánovas, *Escritos de Arnaldo de Vilanova condenados por la Inquisición* (Madrid: Editora Nacional, 1976).

Only one known case suggests that alchemy was condemned, although not *per se* but through the existence of interpretative lacunae, as reads a handwritten note on the last page of the copy of *De Artem medicinalem* by Ioannis Argentieri (1513-1572) held at the National Library of Madrid:

*“Particularidades de los libros vedados que en el catalogo que se hizo año 1583 estan vedados por Quiroga arzobispo de Toledo. Ay una particularidad en el catalogo acerca de los libros de astrologia que dize ansi: tambien se prohiben todos los libros, tratados y escritos en la parte que tratan y dan reglas y hazen arte o ciencia pa conocer por las estrellas y sus aspectos o por las rayas de las manos... pero no por eso se prohiben las partes de la astrologia que toca al conocimiento de los tiempos y sucesos generales del mundo ni los que enseñan por el nacimiento de cada uno a conocer sus inclinaciones condiciones y calidades corporales ni lo que pertenece a la agricultura y navegación y medicina... Los libros que yo tengo sospecha y están particularmente vedados son los siguientes: A. Magno de secretis mulieri, Alchimia purgatori, Bartolomei Colictis phisiognomia et chiromancia compendium, Francisci Enzinas opera omnia, Fabrici Montani, Hermetis magi de Aristo. liber, Cornarii opera omnia”.*⁵¹

As for the works of Paracelsus, Spanish censors reacted to them only in 1583 and only following the Index of Prague. When it came, however, Spanish censure stemmed not from the scientific content of Paracelsus’ writings but from very precise and circumscribed concerns that, as José Rodríguez has argued, could in no way be attributed to a backlash against European Paracelsiansm.⁵² To be sure, Paracelsus and his work had been hotly contested long before the Spanish censors made their

⁵¹ “Particular characteristics of the banned books [are seen] in the catalogue done in 1583 by Quiroga, Archbishop of Toledo. The catalogue [notes] astrological books in particular. It states as follows: also all books, tracts, and writings are forbidden that concern and give rules, or [make up the] art or science of knowing by the stars, the times and general facts of the world, or the ones that teach that at birth [one can] know the tendencies and bodily qualities; and also everything concerning agriculture, navigation, and medicine. The books I have made suspect and banned, in particular, are: A. Magno de secretis mulieri, Alchimia purgatori, Bartolomei Colictis phisiognomia et chiromancia compendium, Francisci Enzinas opera omnia, Fabrici Montani, Hermetis magi de Aristo. liber, Cornarii opera omnia.” Ioannis Argentieri, *Ioannis Argenterii pedemontani in artem medicinalem, commentarii tres, non solum medicinae profesoribus utiles & necessarii sed etiâ philosophis & universis qui rerum scientia delectantur, a Emmanuel Philiberto Sabaydiae Ducem Iuntreali* (Monte Regalli: ex officina torrentiana, 1566). In the introduction to this book by Bersani Benexiae, Argentieri was said to have been in correspondence with Spanish colleagues: “Idem ostendunt ex Galia, Hispania, Italia & Germania literae doctissimorum multorum medicorum.” Argentieri, an Italian anti-Galenic physician, denied that secondary qualities were a mere consequence of primary qualities.

⁵² Rodríguez Guerrero, “Censura y Paracelsismo durante el Reinado de Felipe II.”

pronouncements in 1583 and long before his works appeared on the Index of Prohibited Books in 1599.

The first to criticize Paracelsus' medical practices were Conrad Gesner (1516-1565), Johannes Crato von Crafftheim (1519-1585), and Lorenz Scholtz von Rosenau (1552-1599) in Germany⁵³ and Andreas Dudith (1533-1589) in Hungary. They warned of the religious implications of his general doctrine. The fact that editions of Paracelsus' works continued to issue from presses in Basel, Cologne, and Strasbourg sparked ever more controversy about the man and his teachings, with famous orthodox physicians attacking not so much his medical arguments as their theological implications. The latter, they held, were implicitly heretical. To maintain, therefore, orthodox science as they conceived of it, it was necessary to defend it against the theological views of Paracelsus and his followers.⁵⁴ Such defenses were penned by Johannes Wier (Weyer) (1515-1588), Bartholomäus Reussner (1532-1572), Reiner Solenander (1524-1601), Gervasio Marstaller (?-1578), and Achilles Gasser (1505-1577). Later, two Reformist physicians—Bernhard Dessen von Cronenburg (1510-1574) and the Swiss Protestant theologian, Thomas Lieber (later Erastus) (1524-1583—launched the most hostile, anti-Paracelsian offensive.

In France, Jacques Gohory (1520-1576), assimilated some Paracelsian ideas at the same time that he violently rejected others and maintained controversies both with recognized Paracelsians (Adam von Bodenstein (1528-1577), Gerhard Dorn (ca. 1530-1584), Pierre Hassard (fl. 1550), Alexandre de la Tourette (fl. 1575), and others) and with classic anti-Paracelsians (Thomas Lieber (1523-1583) and Johannes Wier (1515-1588)). In 1575, Jacques Aubert (1500?-1586), a physician from Lausanne, called Paracelsians “lost people,” while the Protestants Germain Courtin (?-1597), André du Breil (fl. 1580), and Melchior de Flavin (d. ca. 1580) lashed out against Paracelsian thought even more violently than had the Catholic theologians of the Sorbonne, who, in the late 1570s, had been the first religious authorities to condemn him and his work.⁵⁵

⁵³ In 1561, Conrad Gesner said that he never had a catalogue of Paracelsus' works, since he viewed Paracelsus as an atheist and as a magician who traded with evil. Gesner also said that Paracelsus must not be included with other good writers. See Bernhart Milt, “Conrad Gesner und Paracelsus,” *Schweizerische Medizinische Wochenschrift* 59 (1929): 486-488 and 506-509.

⁵⁴ See Antonio Rotondó, “Pietro Perna e la vita culturale e religiosa di Basilea fra il 1570 e il 1580,” in Antoni. Rotondó, ed., *Studi e ricerche di storia ereticale italiana del Cinquecento* (Torino: Giappichelli, 1974), 273-392; and George Mora and Benjamin G. Kohl, *Witches, Devils and Doctors in the Renaissance: Johann Weyer, De praestigiis daemonum* (Binghamton: Medieval & Renaissance Texts & Studies, 1991).

⁵⁵ See Didier Kahn, “Cinquante-neuf thèses de Paracelse censurées par la Faculté de théologie de Paris le 9 de octobre 1578,” in Sylvain Matton, ed., *Documents oubliés sur l'alchimie, la kabbale et*

The connection between Paracelsianism and Protestantism is interesting and key to understanding the early diffusion and development of Paracelsian thought. The Council of Trent had interpreted Paracelsianism as encompassed by Neoplatonism as well as aspects of hermetic and anti-Aristotelian Renaissance philosophy. This is what resulted in 1599 in the inclusion of Paracelsus' works on the Index of Prohibited Books. Simultaneously, Paracelsus' religious ideas, although unpublished, were incorporated into Protestantism by means of their inclusion in the writings of the so-called Second Reformation German preachers. In this way, and by means of a dual process of Catholic prohibition and Protestant synthesis, Paracelsianism, a doctrine that had begun as neither Catholic nor Protestant, was transformed into a Protestant heresy.⁵⁶

The first followers and publishers of Paracelsus experienced serious difficulties as a result of this theological debate. Although they would have preferred to concentrate exclusively on Paracelsus' medical and natural philosophical thought, they found it difficult not also to consider his cosmological ideas. Moreover, given the opposition of the traditional universities, which saw their position challenged, it is easy to see why the early development of Paracelsianism took place in the courtly context. The adoption of hermetic philosophy by many German Protestants—in counterpoint to Catholic, Aristotelian philosophy—aided the development of Paracelsianism as a medical doctrine, particularly in northern German Protestant courts. They pointedly adapted their therapeutic schemes to the tantalizing chemical novelties.⁵⁷

Such was not the case in Spain, however. First, Paracelsus' collected works were never censured by the Spanish General Inquisitor Quiroga; only four of his medical works were. While Paracelsus' *Chirurgia magna* as well as Leonardo Fioravanti's *Capricci medicinali* were completely prohibited in 1583, the *Chirurgia minor* was only ordered purged in 1584. Once corrected and the corrections authorized, its publication was permitted.⁵⁸ This was the extent of the censorship and purging of Paracelsus' texts

Guillaume Postel offerts, à l'occasion de son 90e anniversaire, à François Secret par ses élèves et amis, Travaux d'Humanisme et Renaissance, vol. 353 (Genève: Droz, 2001), 161-178.

⁵⁶ Hugh Trevor-Roper, "Paracelsianism Made Political 1600-1650," in Grell ed., *Paracelsus: The Man and His Reputation*, 119-33.

⁵⁷ The most notable cases were those in Denmark and Germany. The Danish case was analyzed by Jole Shackelford in "Paracelsianism in Denmark and Norway in the 16th and 17th Centuries" (Doctoral dissertation, University of Wisconsin, 1989). Bruce Moran analyzed the German courts, that particularly of Moritz of Hesse, in *The Alchemical World of the German Court: Occult Philosophy and Chemical Medicine in the Circle of Moritz of Hesse* (Stuttgart: Franz Steiner Verlag 1991).

⁵⁸ "Theophrasti Paracelsi, tres libri Chirurgiae suae: quam Bertheoniam intitulavit. Item, chirurgia magna eiusdem: in duos tomos digesta. Item, chirurgia minor, nisi repurgentur." Gaspar de Quiroga, *CATALOGUS librorum, qui prohibentur mandato Illustn'ssimi & Reverend. D. D. Ferdinandi de Valdes*

in sixteenth-century Spain. It is thus a serious error to cite the inclusion of Paracelsus in the Indexes of 1583 and 1584 and thereby to assert that his work and his ideas were unknown in Spain. Had Paracelsus been considered a religious reformer like Luther or Calvin, he would have been included on the Index with those who committed “a voluntary and unyielding error against any truth of faith now proved” and whose works were completely prohibited.⁵⁹ Paracelsus was on the Index only because several of his books were deemed to contain erroneous doctrines or sentences. It is thus clear that Quiroga neither considered nor suspected him of being Protestant.⁶⁰ Indeed, as a chemist, Paracelsus was within the well-established Spanish alchemical tradition.

IV. *The Alchemical Tradition in Spain: Arnold of Villanova, (Pseudo) Ramón Llull, and Johannes of Rupescissa.*

Since alchemical techniques as well as the related techniques of distillation were employed in Spain as early as the Middle Ages, it should come as no surprise that Paracelsus, known elsewhere as the father of chemical medicine, may have seemed less than novel in Spain. Similarly, metals and minerals had been used in Spanish medicine decades or even centuries before Paracelsus by Galenic physicians who accepted both as

(Pinciae: Sebastianus Martinez, 1559); *Ibid.*, INDEX et Catalogus librorum prohibitorum, mandato ac Illus. ac Reverendiss: D. D. Gasparis Quiroga (Madrita: Apud Alphonsum Gomezium, 1583), 60r; and “Theophrastus Paracelsus. Ex Theophrasti Paracelsi chirurgia minore,” in Gaspar de Quiroga, *INDEX librorum expurgatorum ac Reverendiss. D. D. Gasparis Quiroga ... iussu editus* (Madriti, apud Alphonsum Gomezium, 1584), 192v. Fioravanti was censured by the Inquisition, while living in Madrid and trying to become a member of the so-called Escorial circle. This suggests that censors focused on anything but science. William Eamon, “Masters of Fire: Italian Alchemists in the Court of Philip II,” in López Pérez, Kahn, and Rey Bueno ed., *Chymia*, 138-56.

⁵⁹ “error voluntarius, et pertinax contra aliquam veritatem fidei jam susceptae”. *Ibid.* Such was the case for other recognized Paracelsians—such as Peder Sørensen, (1542-1602), Adam de Bodenstein, Michael Hayeck, Gerhard Dorn, Bernard Penot du Port (1519-1617), Joseph Du Chesne (1544-1609), and Roch Le Baillif (1540-1598)—as well as for those who sought to reconcile Galenism and Paracelsism—like Martín Ruland “father” (1532-1602), Johannes Guenther von Andernach (1505?-1574), and Johann Albrecht Wimpinaeus. Only Johann Oporin (1507-1568) and Michael Schütz (1515-1581) were on the Index, although not because of their adherence to Paracelsianism but rather for their attacks on the Pope’s authority.

⁶⁰ Following Rodríguez Guerrero in “Censura y Paracelsismo durante el reinado de Felipe II,” Spanish censures on Paracelsus were copied from other official censures. The 1580 Index from Parma (Italy) condemned *Grosse Wundartzney* (that is, *Chirurgia magna*) printed by Pernam in 1573. The inclusion of *Chirurgia berthonia* in the Spanish Index follows logically, since this work was distributed with *Grosse Wundartzney*. As for the “Trei Tractat” (1570), this same topic purged by Quiroga appeared in one of the theses condemned by the Faculty of Theology of Paris. Nevertheless, we cannot directly link the two censures. See Kahn, “Cinquante-neuf thèses de Paracelse,” 177 (note 58). See also Jesús Martínez de Buanda *et al.*, *Index des livres interdits* (Québec: Presses Universitaires de Sherbrooke, 1984-); see vol. 9, “Index de Rome, 1590, 1593, 1596: Avec étude des index de Parme 1580 et Munich 1582.”

well as distillation in their practice of medicine.⁶¹ These are just two of the factors suggestive of why Paracelsianism failed to exist as a movement in Spain. But, why did alchemical and chemical remedies have a reception so radically different in Spain than in the rest of Europe?

As Paracelsus himself declared, he had learned from the work of such thirteenth- and fourteenth-century scholars as Arnold of Villanova, (pseudo) Ramón Llull, and Johannes of Rupescissa, three famous doctors of medieval alchemy. Curiously, these three men all issued from the region linguistically defined by Catalan and Occitan, an area that witnessed the beginnings of the pharmacological orientation of alchemy in the thirteenth and fourteenth centuries.⁶² The development and European expansion of these ideas connects both directly and indirectly to early modern chemical medicine and, therefore, to Paracelsus and others.

By the thirteenth century, Arabic influences had already been felt in this geographical region for several centuries. As John Burnam argued in the early part of the twentieth century, manuscript 19 held in the National Library of Madrid (199v-foll) represents a series of excerpts from texts of a technical, chemical nature and reflects an Eastern influence on the Latin West—probably through Syrian and Lebanese colonies in southern France and Spain—that may have predated and anticipated the great scientific influx via Arabic routes. These influences are also reflected, according to Burnam, in manuscript Lucensis 490, a text written in Visigothic cursive around the first third of the eighth century that is possibly of Catalan origin and possibly from the Monastery of Santa Maria de Ripoll. Indeed, as the use of certain Catalan words may suggest, both manuscripts could have the same origin.⁶³ Expansion from this geographic

⁶¹ Lorenzo Alderete was a physician and defender of Avicenna's medical doctrine at the University of Salamanca and chair of *Prima de Avicena* there during the first half of the sixteenth century. He advocated distillation in making medicines as evidenced by discussion of the preparation of an alembic in his "De febribus pestilencialibus" (B.N., ms 8044, 184r). See Juan Riera, "Lorenzo Alderete y el avicenismo en la Universidad de Salamanca," *Acta histórico-médica vallisoletana* 62 (2003), monographic issue.

⁶² See Michela Pereira, "Un tesoro inestimable: Elixir e prolongatio vitae nell'alchimia," *Micrologus* 1 (1993): 161-87 and "Teoria dell'elixir nell'alchimia latina medievale," *Micrologus* 3 (1995): 103-48.

⁶³ For these arguments, see John Burnam, "Recipes from Codex Matritensis A 16 (ahora 19)," *University of Cincinnati Studies*, ser. 2, vol. 8 (1) (1912): 5-47; Alejandro García Avilés, "El manuscrito 19 de la Biblioteca Nacional de Madrid: Un códice computístico de origen controvertido," *Imafronte* 10

area was to both the north and the south, that is, in the direction of both Catalonia and Valencia. The ideas of (pseudo) Arnold of Villanova, (pseudo) Ramón Llull, and Johannes de Rupescissa on chemical medicine—the same ideas that influenced Paracelsus—were thus known in Spain at least two centuries before Paracelsus' birth.⁶⁴ When his theories arrived in book form in Spain at the hands of his followers Dorn, Bodenstein, Michael Toixites (1515-1581), and others, then, it was not a matter of the assimilation of the proposed medical practice. These ideas had, in fact, made a roundtrip.⁶⁵

It is important to note, however, the differences between the thirteenth-century thought particularly of Arnold of Villanova and its fifteenth-century interpretation in the works of Paracelsus. Theological and ideological components in Paracelsus' thought shed light on his cosmological vision. Proud but also tortured and uncertain, Paracelsus maintained certain esoteric and hermetic beliefs characteristic of his historical moment and sought to link them to a scientific tradition. Nevertheless, both Arnold of Villanova and Paracelsus sought to emulate the pristine model of the "wise man." Both also embraced and exalted the authority of a revealed tradition as opposed to the ideas dominant in their respective times. And, to summon such authority, both used syncretic methods and upheld contradictory attitudes that attracted public attention, favorable and unfavorable. That said, Arnold of Villanova was one of the firmest defenders of Galen's doctrine in the French universities.

Paracelsus articulated his views on alchemy numerous times. For him, alchemy was an art for extracting the hidden parts of natural substances in order not only to manipulate them and to make better medicines but also to theorize on the foundation and origin of nature.⁶⁶ This pharmacological orientation of alchemy entailed the use of

(1994): 41-50; and José M. Millás Vallicrosa, "Nuevos estudios sobre historia de la ciencia española," *CSIC-Instituto "Luis Vives" de Filosofía* 7 (1960): 51-59.

⁶⁴ Miguel López Pérez, "Algunos rasgos sobre la relación entre el lulismo y el pseudolulismo en la edad moderna," *Dynamis* 22 (2002): 327-57. See also the Ferguson manuscripts in Spanish MS. 109: *Rosario de excellentissimo doctor Maestre Arnaldo de villanueva sobre la piedra mayor traduzido de latin en lengua castellana*. See also Lluís Cifuentes, "Les obres alquímiques 'arnaldianes' en català a finals de l'edat mitjana," in Joseph Pararnau ed., *Actes de la II Trobada internacional d'estudis sobre Arnau de Vilanova* (Barcelona: Institut d'estudis catalans, 2005), 129-50 and Barbara Spaggiari, "Due trattati alchemici in lengua d'oc: Riflessioni in margine ad una nuova edizione," in *ibid.*, 509-28.

⁶⁵ Miguel López Pérez, "La influencia de la alquimia medieval hispana en la Europa moderna," *Asclepio* LIX-2 (2002): 215-33.

⁶⁶ Paracelsus discussed these matters in "Labyrinthus medicorum errantium," "Das Buch paraganum," "Die grosse Wundarznei," and "Astronomia magna." See Paracelsus, *Sämtliche Werke, herausgegeben von Karl Sudhoff, ... [und Wilhelm Matthiessen.] I. Abteilung ; Medizinische*

minerals as well as the distillation of the fundamental elements, both very traditional components of alchemical thought in medieval Spain. Similarly, Paracelsus' contribution to the tripartite nature of matter (salt, sulphur, and mercury) and his notion of humidity were less than novel. The former derived from ideas previously articulated by Ramón Llull and Arnold of Villanova, while the latter stemmed from Arnold alone.⁶⁷

Ramón Llull's work—in manuscripts and through texts written in several languages by his followers⁶⁸—was well-known on the Iberian peninsula in the fourteenth and fifteenth centuries.⁶⁹ By 1446, he had also been translated from Castilian into Latin.⁷⁰ Even during Paracelsus' lifetime, pseudo-Llullian alchemical manuscripts written in peninsular languages and works by Johannes de Rupescissa were quite common throughout Europe. Latin versions were printed in Italy, and editions appeared in Strasbourg.⁷¹ Paracelsus could have encountered and absorbed the ideas of pseudo-Llullian alchemical texts and of Rupescissa from any and all of these sources. These

naturwissenschaftliche und philosophische Schriften..., 14 vols. (Munich – Berlín: W. Barth - R. Oldenbourg, 1922-1933) 8: 181-203; 9: 186-90; 10: 276-78; and 12: 238-41.

⁶⁷ See Michela Pereira, “Maestro di segreti o caposcuola contestato? Presenza di Arnaldo da Villanova e di temi della medicina arnaldiana in alcuni testi alchemici pseudo-lulliani,” in Pararnau ed., *Actes*, 381-412; Rémi Franckowiak, “‘I salify, therefore I can see and touch’: The Case of the Chemical Principles,” in López Pérez, Kahn, and Rey Bueno ed., *Chymia*, 279-89; Giovanna Ferrari, “Il trattato ‘De humedo radicali’ di Arnaldo da Villanova,” in Pararnau ed., *Actes*, 281-331; and Chiara Crisciani, “Aspetti del dibattito sull’umido radicale nella cultura del tardo Medioevo,” in *ibid.*, 333-80.

⁶⁸ The earliest follower of (pseudo) Llull may have been one Gallandius who lived around 1332 and who translated Llull's *Testamentum*. His work is in manuscript 208 of the Spanish section of the National Library of France. According to the end of the text, he also translated the text into English in 1332. See José R. de Luanco, *La alquimia en España* (Barcelona: Fidel Giró, 1889), 178. Around 1414, an Italian alchemist, Odoart de Nola, was following the Llullian doctrine in Majorca. In 1417, he worked on alchemy with another alchemist, Diego Garcia, sponsored by Olfo de Próxide, none other than the Governor of the Kingdom of Majorca. See Archivo Histórico de Mallorca, *Cédulas reales*, Z.54, and Bartolomé Guasp, *La vida ermitaña a Mallorca desde segle XIII a l'actualitat* (Palma: Sacrato Cors, 1946), 51-52.

⁶⁹ See *Balsamus qui in omnibus prevalet et vincit naturalem in omnibus experiētiis*, Cathedral de Toledo, ms 96-32, 77r and José M. Millás Vallicrosa, “El manuscrits lullians de la Biblioteca Capitular de Toledo,” *Estudios franciscanos* 46 (1934): 366-733.

⁷⁰ (Pseudo-) Raimundus Lull, *Theorica testamenti (De hispanica lingua in latinam)*. Anno 1446. Amsterdam, Bibliothéque Philosophique Hermétique, ms. 16.

⁷¹ For the manuscripts, see (Pseudo-) Raimundus Lull and Johannes de Rupescissa, St. Gall, Vadiana, Ms. 388 (1525): *De consideracione alcemie*, 32-39v; *El Rosario de Maestro Ramon*, 40-55v; *Comienza el libro llamado Speculum alkimie Magistri Ray. Lulli*, 56-60; *Apertorio M. R[aymundi]* 60v-63; *Tractatus de levissima elixiriarum*, 63v-67v; *Testamentum*, 115-116; *Llibre de fer los mercuris et elixirs de aquells*, 116v-130v; and *Comença lo llibre apellat magica de Mestre Ramon Llul*, 188-203. See also St. Gall, Vadiana Ms. 423: *Comensa el libro lamado speculum alkimie Magistri Raymundi Lull*, 40-44, 16th century; St. Gall, Vadiana, Ms. 391: *Aquesta es la medicina de Galien* (81v), 16th century. For the Latin translations, see (Pseudo-) Raimundus Lull, *De secretis naturae* (Venice: Georgium Arrivebenium, 1514); *Liber de secretis naturae seu de quinta essentia* (Venice: Siegmund Ggrimm, 1516; *Liber de secretis naturae seu de quinta essentia* (Venice: Lucc'Antonio Giunta, 1521); and *Liber de secretis naturae seu de quinta essentia* (Argentorati: Baltasar Beck, 1541, and Argentorati: publicata sunt per M. Gualtherium H. Riff argentinensem medicum, 1541).

antecedents would thus have rendered his ideas less than fresh and innovative in Spain following their reintroduction in the sixteenth century.

V. *Distillation, Medicine, and Alchemy in Spain before Paracelsus*

If an alchemical tradition manifested itself in Spain as early as the thirteenth century, the use of metals—such as lead, silver, copper, alum, arsenic, and tar—in the preparation of medicines occurred in Arab Andalusia even earlier, that is, in the tenth century.⁷² By the eleventh century, ammonia, aluminium, iron, cinnabar, and quicksilver had also been incorporated into the pharmacopeia.⁷³ These components were frequently used— first in the Valencian Arab region, then among Christians in Valencia, and later among the *moriscos*—throughout the sixteenth and into the early seventeenth century.⁷⁴ In 1417, King Alfonso III of Aragon, dubbed “the Magnanimous,” held court in Valencia, where arsenic and sublimate quicksilver could be sold to Christian *especieros*. These products, however, needed to be kept under lock and key.⁷⁵ A few years later on 20 March, 1441, the College of Apothecaries in Valencia prohibited druggists from buying, even from another druggist, oils and distilled waters, except for waters of orange blossom, waters of eufrasia, and *aqua ardens*. This prohibition, with additional decrees, was ratified again in 1443. In the mid-1400s, distillation was also regulated, although more than a century earlier in 1323, the Valencian druggist Arnaldo Torrella had made professional use of alembics and crucibles, and instructions for making *aqua ardens* by alembic were also known.⁷⁶

⁷² Luisa M. Arvide Cambra, “Un ejemplo de medicina práctica en al-Andalus: El Tratado XIX del Kit.ab al-taerif de Ab.u-l-Q.asim al-Zahr.awi (c. 936-c. 1013),” *Dynamics* 21 (2001): 73-91.

⁷³ Luisa M. Arvide Cambra, “Un ejemplo de medicina práctica en al-Andalus: El Kztab Mujarrabat al-Jawag de Abü-l- 'Ala' Zuhr (c. 1060- 1131),” *Dynamis* 7-8 (1987-88): 295-346.

⁷⁴ See Ana Labarta, “Textos para el estudio de la terapéutica entre los moriscos valencianos,” *Dynamis* 1 (1981): 275-310 and Ana Labarta and Carmen Barceló, “Nuevas recetas médicas de moriscos valencianos,” *Dynamis* 7-8 (1987-88): 347-54.

⁷⁵ *Fori regni valentiae* (Valentia : Arte ac industria experti viri Ioannis de Mey Flandri, 1547), 249.

⁷⁶ Specifically, Archivo del Reino de Valencia, *Inventario* of dated 1462. On this, see Luís García Ballester, *La búsqueda de la salud: Sanadores y enfermos en la España medieval* (Barcelona: Editorial Península, 2001), 561-644. See also *Les virtuts del aygua ardent*, B.N., ms. 105, in catalan language, 14th century. María P. Hitos Natera, *Índice de manuscritos existentes en la Biblioteca Nacional de Madrid, de interés a la historia de la farmacia y ciencias afines, con breves comentarios de su contenido* (Madrid, 1970), 35.

As Mar Rey Bueno has shown, “*the distillatory practices, developed throughout the thirteenth and fourteenth centuries, were incorporated into the technical activities of Spanish druggists from the beginning of the Renaissance.*”⁷⁷ In fact, remedies made by distillation—the famous distilled waters—have come down to us in early medieval recipe books.⁷⁸ Widely used in antiquity, pharmacological distillation techniques were also regularly employed in the sixteenth and seventeenth centuries, owing primarily to the publication of works specifically devoted to them. Distillation was considered new, despite the fact that its practice had long been incorporated into alchemy and directed toward the preparation of specific medicines. Conrad Gesner (1516-1565), author of one of the most renowned treatises on the art of distillation, had this to say about the practice in his *De remediis secretis*:

Some attribute the origin of extracting waters (as they call them), liquors, and the oils of simple medicines by the force of the fire to Hieronymus de Brunschwig, who, for about seventy years, practiced medicine in Strasbourg. But, in this, they are completely deceived. That art was not invented by him, but he was the first to write on the subject in our German language.⁷⁹

A similar statement could be made about Paracelsus. The Galenic system had already been discredited before he wrote;⁸⁰ the use of distillation in pharmacology and

⁷⁷“Las prácticas destilatorias, desarrolladas a lo largo de los siglos XIII y XIV, se incorporaron al elenco de actividades técnicas propias de un boticario español desde comienzos del Renacimiento.” Mar Rey Bueno, “El informe Valles: Los desdibujados límites del arte de boticarios a finales del siglo XVI (1589-1594),” *Asclepio* 56 (2004): 243-68 on p. 257. In 1521, for example, Catalan druggist, Pere Benet Mateu, said that distillation, as much as sublimation, served to extract subtle virtues for medicines. See his *Liber in examen apothecariorum quam etiam adolescentium eruditionem a filio eiusdem predicti Petri Benedicti Mathei in lucem traditus incipit* (Barchinone: Iohannis Rosembach, 1521), fol. 67: “Destillatio sive sublimatio est per quam extrallitur virtus subtilis medicinarum.”

⁷⁸ Such as *Recetario de Alba*, a collection of recipes of the House of the Duke of Alba, or *Recetario de Enrique IV*, a large collection of receipts prescribed to King Henry IV, his family, and royal household by his royal physicians and dated 1462. On this, see Ballester, *La búsqueda de la salud*, 561-644.

⁷⁹ “Sunt quid ad Hieronymum Brunsuicensim, qui ante annis circiter septuaginta medicinam Argentorati factitavit, aguas, ut vocant, & liquores, & olea è medicamentis simplicibus vi ignis eliciendi originem referant: & illi multum falluntur, non enim ab illo inventa haec ars est, sed lingus nostra Germanica conscripto & evulgata primum.” Conrad Gesner, *De remediis secretis, liber physicus, medicus et partiam chymicus et economicus...* (Zurich, 1569 or Zurich: A. Gessner, F. & R. Vuysenbachium, 1552), Praefatio, 3-4: “Sunt quid ad Hieronymum Brunsuicensim, qui ante annis circiter septuaginta medicinam Argentorati factitavit, aguas, ut vocant, & liquores, & olea è medicamentis simplicibus vi ignis eliciendi originem referant: & illi multum falluntur, non enim ab illo inventa haec ars est, sed lingus nostra Germanica conscripto & evulgata primum.”

⁸⁰ Oswei Temkin, *Galenism: Rise and Decline of a Medical Philosophy* (Ithaca and London: Cornell Univ. Press, 1972), 9; Grafton and Siraisi ed., *Natural Particulars*; Nancy Siraisi, “Medicine and the Renaissance World of Learning”; and Jean Paul Pittion, “Scepticism and Medicine in the Renaissance,” in Richard H. Popkin and Charles B. Schmitt ed., *Scepticism from the Renaissance to the Enlightenment* (Wiesbaden: O. Harrassowitz, 1997), 103-32.

in alchemy preceded his teachings; the pharmacological use of metals and minerals predated his writings as well.

As early as 1440, Queen Doña María (1401-1458) questioned how extensively alchemical remedies were being used. She named special judges in a lawsuit brought in Valencia between the druggist Juan Fuster and the merchant Martín Ruiz concerning the preparation of a *medicína auri*, that is, a potable gold. Three more suits followed during her reign with one more in 1445 transmitted from Italy by her husband, King Alfonso V (1396-1458).⁸¹ A spectacular fifteenth-century manuscript, entitled *Ymagen de la vida sacado de los secretos de los filosofos sobre el arte de alquimia* contains within its first two pages a recipe for preparing potable gold.⁸² The text's anonymous author—who wrote in Catalan but who was clearly familiar with the language of Valencia—followed that with a formula for making the philosopher's stone. While clearly distinguishing the two preparations, he nevertheless suggested the pharmacological applicability of both chemical remedies. As this and other evidence makes clear, distillation techniques and other alchemical preparations were being debated and used for pharmacological purposes in Spain well before Paracelsus was born in 1493.

VI. Spanish Paracelsianism?

In light of the evidence that new research like that sketched above has brought to light, it is perhaps appropriate to reexamine the notion of Spanish Paracelsianism. The older historiographical tradition, as represented in the work, for example, of López Piñero, tended to use the term “Paracelsianism” rather loosely.⁸³ As José Rodríguez has correctly noted, López Piñero sometimes used the word as synonymous with the “production of chemical medicines.” Given such usage, López Piñero labeled as Paracelsians both the distiller, Diego of Santiago (??-1599),⁸⁴ and the professor of

⁸¹ Chronologically, Archivo del Reino de Valencia (ARV), *Comunes de la Reyna Doña María*, book 3, f. 177, and book 4, f. 22; *Comunes del Rey don Juan*, book 3, f. 171; *Communium*, book 1, f. 88v.

⁸² This text on *Images of the Sacred Life of the Secrets of the Philosophers' Stone and the Art of Alchemy* is B.N., ms 10163. See José Rodríguez Mourelo, “Manuscrito de alquimia del siglo XV perteneciente a la B.N.” *RABM* III (1899): 75-98.

⁸³ Recall the references in notes 1 and 2 above.

⁸⁴ On Diego de Santiago, see Miguel López Pérez, *Asclepio renovado* (Madrid, Corona Borealis, 2003), 124-31.

secrets, Leonardo Fioravanti (1517-1588).⁸⁵ This same vagueness of meaning may also be found in the work of José Pardo Tomás, Francisco Javier Puerto, and others.

Moreover, some were called “Paracelsians” by later historians simply because they made favorable mention of Paracelsus in their work. Until recently, the first mention of Paracelsus in a text printed in Spain was thought to have been by the surgeon, Juan Frago (1530-1597), in 1581:

“...tratando los días pasados un caballero humanista de estos avisos quirúrgicos y de las novedades que contienen, le oí dezir una cosa que me cuadró mucho y fue que eran tomados de Teofrasto Paracelso, el qual se aparta del camino ordinario de la doctrina antigua de todos los sabios [...] Y porque es cosa de perpetuar que se sepa la vida de aquel autor tan peregrino y extraño en las obras, dire lo que escribe del Conrado Gesnero...”⁸⁶

Five years later in the revised edition of his text, Frago mentioned actually having consulted both Paracelsus’ *Chirurgia magna* and his *Chirurgia parva*, declaring that “[a]fter writing this, I had in my hands the *Chirurgia magna* and *parva* of this Theophrastus Paracelsus (purged according to the new catalogue ... of the Holy Office by Doctor Juan del Llano in 1573.”⁸⁷ At least three others, one earlier and two later, also made anecdotal reference to Paracelsus: Bernardino Gómez Miedes (1520-1589) in his *Commentariolum* of 1579; Bartolomé Hidalgo de Agüero (1530-1597), professor at the University of Seville in 1584; and Francisco Diaz (1525-1590), Philip II’s Chamber physician, four years later in 1588.⁸⁸

⁸⁵ José Rodríguez Guerrero and Pedro Rojas García, “La *Chymica* de Richard Stanihurst en la corte de Felipe II,” *Azogue* 4 (2001), see <http://www.revistaazogue.com/stanihurst>.

⁸⁶ “[I have been] dealing the past days with a humanist gentleman on these surgical notes and on the novelties they contain. I heard him say something which I found very agreeable. It was taken from Theophrastus Paracelsus, who took a stand against the current [medical] path [based on] the ancient doctrine of the sages. Because the life of this pilgrim and rare writer [Paracelsus] ought to be perpetuated in books, I shall say what Conrad Gesner wrote of him ...” Juan Frago, *Chirurgia universal* (Madrid: Viuda de Alonso Gómez, 1581).

⁸⁷ “Después de escribir esto yo tuve en mis manos la *Chirurgia Magna* y la *Parva* de este Teophrasto Paracelso (expurgado según el nuevo catálogo del Santo Oficio del Doctor Juan del Llano en 1573.” Juan Frago, *Cirurgia universal* (Madrid, Vda de A. Gómez, 1586), 72.

⁸⁸ Bernardino Gómez Miedes, *Commentariolum de sale libri V* (Valencia: Pedro Huete, 1579), 172-73, in which Gómez Miedes is actually quite critical of Paracelsus, placing him in the ranks of falsifiers and charlatans; Bartolomé Hidalgo de Agüero, *Thesoro de la verdadera cirugia y via particular contra la comun, compuesto por el Doctor Bartolome Hidalgo de Agüero* (Sevilla: Francisco Pérez, 1604); and Francisco Diaz, *Tratado nuevamente impresso, de todas las enfermedades de los riñones, vexiga, y carnosidades de la verga, y vrina, dividido en tres libros: Compuesto por Francisco Diaz Do[c]tor en Medicina... dirigido al Do[c]tor Valles, Protomedico del Rey nuestro Señor... 2 vols.* (Madrid: Francisco Sánchez, 1588).

By 1591, the first European university chair actually devoted to chemical medicine had been created at the University of Valencia. Called the chair “De remediis secretis” after Conrad Gesner’s book of the same title, its first incumbent was the physician, Llorenç Coçar (ca. 1540-1592). Two years before in 1589, Coçar, a self-proclaimed Paracelsian, had published his *Dialogus*, an exposition of his vision of medicine.⁸⁹ Traditionally portrayed by historians of science as the leader of Spanish Paracelsianism, that portrayal, too, now merits reconsideration.⁹⁰

First, as noted by José Rodríguez,⁹¹ Coçar presented a new medical theory based on his reading of Paracelsus’ *Das Buch paragranum*. There, Paracelsus had argued for a theory grounded in philosophy, astronomy, alchemy, and what he termed the physician’s virtue.⁹² According to Rodríguez, General Inquisitor Gaspar de Quiroga proposed Coçar as the physician of the Inquisition at Valencia in 1584, a post accompanied by economic privileges, fiscal advantages, shelter from the Court of Justice, and remarkable professional recognition.⁹³ When the inquisitors of Valencia tried to place one of their minions in the post instead, it ultimately went unfilled. Of interest here, however, is the fact that Coçar’s Paracelsianism was never at issue. As Pardo Tomás put it: “we find the position untenable that the Valencian inquisitors’ attitude toward Coçar was guided by distrust of his opinions on scientific matters. No document supports this. The Inquisition did not act against the book that Coçar published ... Nor was mention made, in the documents we have seen, of his scientific opinions and positions.”⁹⁴

And, Coçar’s case was not unique during the reign of Philip II; those of Richard Stanihurst (1547-1618), Ernesto de Wittelsbach (1554-1612), and Antoine Perrenot de Granvelle (1517-1586) were similar. Although they embraced various aspects of

⁸⁹ Llorenç Coçar, *Dialogus veros medicinae fontes indicans, auctore Laurentio Coçar, Valentino Doctore Medico* (Valencia: apud Petrum Patricium, Valencia, 1589).

⁹⁰ José María López Piñero, *El Dialogus (1589) del paracelsista Llorenç Coçar y la cátedra de medicamentos químicos de la Universidad de Valencia (1591)* (Valencia: Cátedra e Instituto de Historia de la Medicina, 1977). Mariluz López Terrada, “Llorenç Coçar: Protomédico de Felipe II y médico paracelsista en la Valencia del siglo XVI,” *Cronos* 8-1 (2005): 31-66.

⁹¹ José Rodríguez Guerrero, “Censura y Paracelsismo durante el reinado de Felipe II,” *Azogue* 4 (2001), <http://www.revistaazogue.com/inquisicion.htm>, accessed 26 October, 2010.

⁹² See Paracelsus, *Sämtliche Werke*, 8: 54: “Ich setz’ meinen Grund auf vier Säulen, als in die Philosopheri, die Astronomiei, die Alchemie und die Tugend.”

⁹³ Madrid, AHN. Inquisición, leg. 505-1, f. 28r.

⁹⁴ “Creemos que debe descartarse que la actitud de los inquisidores frente a Coçar estuviera guiada por una desconfianza hacia sus opiniones en materia científica. Téngase en cuenta que el Santo Oficio no actuó contra el libro que Coçar había publicado. Tampoco hay ni una sola mención a sus opiniones y posturas científicas en la documentación que hemos revisado.” José Pardo Tomás, “Llorenç Coçar y la Inquisición valenciana,” in *Homenatge al doctor Sebastià Garcia Martínez* (Valencia: Ed. Generalitat Valenciana, 1988), 1: 363-73 on p. 371-2.

Paracelsian thought, they faced repercussions neither from fervent defenders of the Counter Reformation nor from orthodox followers of Catholicism. Objections, when they were raised, stemmed from other aspects of their thought. For example, while Stanihurst registered his surprise in two separate letters at the hostile attitude toward him of some of Philip II's Chamber physicians, it was clear that it was the completely independent character of the work he carried out at the distillation laboratory at El Escorial, not his medical ideas, that bothered them. Royal distillers and "distilling technicians" were under the aegis of the *protomédicos*, while Stanihurst dealt directly with the King.⁹⁵ Criticisms were also lodged against Ernesto de Wittelsbach. In an interchange between Granvelle, a leading minister of the Spanish Hapsburgs, and his confidant Maximilien Morillon (d. 1586), Wittelsbach was faulted not for being a Paracelsian but because he spent more time in alchemical laboratories than in fulfilling his ecclesiastical obligations.⁹⁶ Granvelle had first been exposed to Paracelsianism at least as early as 1565 when Gerhard Dorn sent him an autographed copy of his *Clavis totius philosophiae chymisticae*.⁹⁷ Two years later, as evidenced by a manuscript in the Besançon Library, he compiled a collection of prescriptions and commentaries that included extracts of a Paracelsian "Compendium" translated by Jacques Gohory. In the early 1570s, Granvelle also sponsored the alchemical activities of Nicholas Guibert (1547?-1620).⁹⁸

While these examples may indicate a certain openness to aspects of Paracelsian thought, did Spanish medicine in the last half of the sixteenth century actually embrace Paracelsian *medical doctrine*? To explore this, it is necessary to note first that sixteenth-century Spanish medicine was not only heavily Galenic but also a haven for Arabicized Galenism, despite the fact that traditional historiography situated Spain within the so-called medical humanist movement only at the start of the seventeenth century. The strength of Galenism in Spain, then, could be seen as a deterrent to the arrival and reception of Paracelsus' ideas in the mid-sixteenth century. Moreover, it could also be

⁹⁵ Rodríguez Guerrero and Rojas García, "La *Chymica* de Richard Stanihurst en la corte de Felipe II."

⁹⁶ Charles Piot and Edmund Poulet, *Correspondance du Cardinal de Granvelle, 1565-1586*, 12 vols. (Brussels: F. Havez, 1877-1896), 8: 404 and José Rodríguez Guerrero, "Censura y Paracelsismo durante el Reinado de Felipe II," *Azogue* 4 (2001), <http://www.revistaazogue.com/inquisicion.htm> (accessed 26 October, 2010).

⁹⁷ Didier Kahn, "Le début de Gérard Dorn d'après le manuscrit autographe de sa *Clavis totius Philosophiae Chymisticae* (1565)," in Joachim Telle ed., *Analecta Paracelsica* (Stuttgart: F. Steiner, 1994), 59-126.

⁹⁸ Miguel López Pérez, "Alquimia, terapéutica y sanidad en la de los Austrias menores" (Doctoral thesis, Universidad Complutense de Madrid, 2001), 698.

argued that Galenism, as complementary to Catholicism, formed an impenetrable block for Paracelsianism, alchemy, and chemical medicine, given Paracelsianism's association with Protestantism. This was not the case, either.

Consider the case of Luis Lobera de Avila (1480?-1551), physician at the Court of Charles V. Lobera, a pediatrician and an adherent of an Arabicized Galenism, was renowned throughout Charles's domain for his deep knowledge not only of pharmacy but also of alchemy.⁹⁹ In his *Libro de experiencia en medicina*, for example, he discussed the "radical humidity";¹⁰⁰ referred to sublimated mercury as "solimán," a name by which it subsequently became well-known; used antimony (also in the form of ointments or "waters") and quicksilver in various preparations; and distinguished explicitly between *elixir vitae* and "potable gold."¹⁰¹ Another famous Galenic physician, the late-sixteenth-century Juan Bravo de Piedrahita (1527-1610), also described and defended various chemical distillations in his *De simplicium medicamentorum*.¹⁰² As these examples make clear, Spanish physicians in the late sixteenth century considered Paracelsus just another physician and quite naturally included some of his preparations in their pharmacopeia. This did not, however, make them in any broader, philosophical sense "Spanish Paracelsians."

By the seventeenth and eighteenth centuries, Paracelsus was viewed in essentially three different ways in Spain: as a thinker praised and renowned, as a thinker roundly criticized, and as any other physician, that is, with some aspects of his thought incorporated into medical practice and other aspects ignored. Among the seventeenth-century defenders of Paracelsus' medical and alchemical thought were: Gaspar Bravo of Sobremonte (1603-1683), who, in 1674, argued for the inclusion of Paracelsian

⁹⁹ Luis Lobera de Avila studied in France, practiced in Ariza, was in Bologna in 1530, and later traveled to Tunisia, Sicily, Naples, Milan, Genoa, and elsewhere. He showed great intellectual curiosity and pursued anatomy under Bertucio. Among his works are: *Libro del régimen de la salud y de la esterilidad de los hombres y de las mujeres y de las enfermedades de los niños y otras cosas utilissimas* (Madrid: Julio Cosano, 1923) and *Vanquete de nobles caballeros* (Augsburg: Henricum Stainern, 1530) with later printings in 1531, 1551, and 1556. Lobera devoted the third part of his *Remedio de los cuerpos humanos y silva de experiencias y otras cosas utilissimas* (Valencia: Juan de Brocar, 1542) to all manner of medical recipes. His *Libro de experiencia en medicina y muy aprouado por sus efectos, ansi en nuestra España como fuera della* (Toledo: Iuan de Ayala, 1544) contained some three hundred recipes.

¹⁰⁰ *Libro de experiencia en medicina*, fol. III.

¹⁰¹ *Ibid.*, fol. XXXI.

¹⁰² Juan Bravo de Piedrahita, *De simplicium medicamentorum* (Salamanca: Juan Bautista de Terranova, 1592), 102: "Ignis destillationibus convenient. Qua de causa distillatio quae a putredine sit, vel simi equini vel alterius cuius piâ rei vel calce paulitum irrigata & saepe muta etiam si chymistis in multis fuerit ex usu medico tamen recibenda non est praeservatis si intra corpus res distillata est suscipiendi nâ admovêdorû mima (milma) habetur cura. Alambica etiâ quae distillationes vasa habêtur multi generis existût, cuprea, sicticia, vitrea, atq plûbea."

spagyric in medicine; Gerónimo de la Fuente Piérola (1599-ca. 1671), who made the same kind of argument in 1683; and the mysterious H.O.D.B., who wrote an impressive manuscript on alchemy devoted to Paracelsus in 1678.¹⁰³ Relative to distillation, in particular, problems of a pharmacological nature had already resulted in the appearance of at least one regulatory text as early as the late sixteenth century.¹⁰⁴ Others felt that such attempts to bring order into pharmacology had failed and wrote their own accounts. For example, the distiller Juan de Castro y Medinilla (fl. 1600) wrote corrections in 1619 to such official texts as Francisco Valles's *Discurso sobre el verdadero modo de destilar*¹⁰⁵ based on his own expertise in distillation as well as on his reading of the works of Arnold of de Villanova, Albert the Great, Conrad Gesner, Leon Fiorabanto, Ramón Llull, and Paracelsus.

Others criticized Paracelsus. Juan Eusebio Nieremberg (S.I.) (1595-1658), for example, distinguished the *chimicos* (or alchemists) from the Paracelsians. Although he accepted the elements like the seven metals, he did so in anti-Paracelsian terms:

*“La massa y barro del mundo es la materia primera bien a propósito para hacer las formas. Después los elementos serán siete, si queremos hazer caso de los chimicos y concertarlos con los Filósofos. Digo esto por la secta que ha corrido originada de Paracelso y Livabio, que han trastocado y dado en tierra con la Filosofía Antigua. Dizen algunos paracelsistas que los principios o elementos son tres, y ninguno señalan de los conocidos. Palmario se ríe de ellos. Eliseo Roslin y otros hazen más peso [...] Se podían concertar los filosofos y los chimicos con poner siete elementos, quatro primeros y tres segundos; los quatro de los filosofos primeros y los tres de los chimicos segundos”.*¹⁰⁶

¹⁰³ See Gaspar Bravo de Sobremonte, *Resoluciones de consultationes medicae* (Colonia: Johann Wilhelm Friessen, 1674), 122: “Quod dogmatica Medicina tenetur amplecti Spagyrica medicamenta.” Gaspar Bravo de Sobremonte, *Operum medicinalium* (Lugduni: Laurenti Arnaud, 1674), 178: “Paracelsi spagyria admitenda a Medicina Dogmatica”; Gerónimo de la Fuente Piérola, *Tyrocinio pharmacoepo...* (Madrid: Antonio Zafra, 1683), 177: “De Emplastro alio fodicorum, es Theophrasto Paracelso, de bermibus ... R. Galbani. Oppoponacis, ana. Unc, 1. Ammoniacy, edelij, ana, unc.2”; and H.O.D.B., *Paracelsica admirable de la piedra philosophal, cuya materia es el mercurio, fundada sobre el número ternario*, BN, ms. 8336, 130 ff. (in quarto and in Spanish dated 1678).

¹⁰⁴ Francisco Vallés, *Tratado de las aguas destiladas, pesos y medidas* (Madrid: Luís Sánchez, 1592). On distillation in sixteenth-century Spain, see Mar Rey Bueno, “El informe Vallés,” in Francisco Javier Campos and Fernández de Sevilla, ed., *La ciencia en el Monasterio del Escorial: Actas del simposium, 1/4-IX-1993*, vol. 1 (El Escorial: EDES, 1993), 559-84.

¹⁰⁵ This text, *Discourse on the True Method of Distillation*, is BN, ms. 4250.

¹⁰⁶ “The mass and mud of the world is the first matter, [it is] suited to make all forms. Later, there were seven elements, if we follow the chemists and combine [them] with the philosophers, [that is, considering] the sect arising from Paracelsus and [the ideas of] Libavius, who recoiled [from Paracelsus]

Paracelsus was also criticized by Gregorio García in the seventeenth century and by Manuel Gutiérrez de los Ríos and José Santos, among others, in the eighteenth.¹⁰⁷

Finally, others merely considered Paracelsus just another physician whose ideas—whether on remedies or on medical chemical theory—were there to be embraced or rejected as one saw fit. Among those in this camp were the eighteenth-century physicians, Félix Palacios, Francisco Suárez de Ribera, Felipe Borbón, and Martín Martínez.¹⁰⁸

VII. Conclusion

As should now be evident, what historians call Paracelsianism today was largely absent in early modern Spain. This likely owed, as argued here, to a deep knowledge in Spain of the alchemical texts of Arnold of Villanova, (pseudo) Ramón Llull, and Johannes de Rupescissa, to the pharmacological orientation of alchemy there dating from the Middle Ages, to a long Spanish tradition of distillation, and to the gradual introduction of metals and minerals into the Spanish pharmacopeia. For all of these reasons, Paracelsian thought failed to be construed as radical in early modern Spain. There was thus no impetus in Spain for the formation of a Paracelsian movement.

and grounded himself on ancient philosophy. Some Paracelsians say that there are three principles or elements, but none of them cites the [four] known ones. Palmarius laughs at them. Elise Rosbir and others do more [than that]. Philosophers and chemists could agree to seven elements—four first ones and three second ones—the four of the philosophers first and the three of the chemists second.” Juan Eusebio Nieremberg, *Curiosa y oculta philosophia* (Madrid: Imprenta del Reyno, 1629), Book II, Chap. 1 “*Del artificio de la Naturaleza: De que manera son siete los elementos*” 319-320. Nieremberg says that there are three elements—earth, air, and water—as well as three principles—Mercury, Sulphur, and Salt. Elements are reduced to a celestial substance, which is not the fifth, but the fourth, essence called fire.

¹⁰⁷ See Manuel Gutiérrez de los Ríos, *Juicio que sobre la methodo controvertida de curar los morbos con el uso de ...* (Madrid: Imprenta de Música, 1753); Gregorio García, *Origen de los indios de el Nuevo Mundo, e Indias Occidentales* (Valencia: Pedro Patricio Mey, 1607), 248; and José Santos, *Índice general alfabético de las cosas notables que contienen todas...* (Madrid: Antonio de Sancha, 1774), 174.

¹⁰⁸ See Félix Palacios, *Palestra pharmaceutica* (Madrid: Juan García Infanzón, 1706); Francisco Suárez de Ribera, *Cirurgía metódica chymica reformada* (Madrid: Francisco Lasso, 1722), 117 and 139; Felipe Borbón, *Medicina y cirugía domestica*, (Valencia: Antonio Juan de Villafranca & Tomás Montes, 1705), 346; and Martín Martínez, *Philosophia sceptica* (Madrid, 1730), 108.