The Catholic Cosmos Made Small: Athanasius Kircher and His Museum in Rome

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If a person sought "conference [with] learned persons" while visiting mid-seventeenth- century Rome, the advice received might very well have been "See Father Kircher…" (Figure 1).[1] Father Athanasius Kircher (1602-80) of the Society of Jesus was known during his lifetime as one of the most prolific and prestigious natural-philosophers of the seventeenth century, a man so well regarded in the estimation of his contemporaries, that some of them even referred to Kircher as the "arbiter and dictator of all arts and sciences in Europe,"[2] and "Master of One Hundred Arts."[3] Working from his position as Chair of Mathematics at the Roman College of the Jesuit Order,[4] Kircher published over forty studies on subjects as varied as translations of Egyptian hieroglyphics, the secret power of magnets and magnetism, Chinese culture and language, the geologic forces underlying volcanic activity, the engineering of Noah's Ark and the mathematical impossibility of the Tower of Babel, as well as treatises on optics, fossils, the plague, music, and a form of Platonic dialectics empowering one to know everything in the universe (to name only a very few).

Despite his prodigious textual output, none of Kircher's activities played as important a role in the development of his reputation as the establishment of a museum in the Roman College, the size of which suggested the encyclopedic material reach of Jesuit global missionary activity as well as Kircher's own equally extensive, seemingly world-subsuming intellectual acumen. Certainly, the frontispiece to the museum's 1678 catalogue would have had readers imagine it that way by depicting the black-robed Kircher and his two guests as miniscule figures amidst the museum's apparently immense collection of an innumerable array of curios and a series of prominently placed model obelisks (Figure 2).

Interpretations of Kircher's museum by modern scholars have remained consistent with the impression given by the frontispiece: Paula Findlen has suggested that Kircher's museum acted as a microcosm of the known universe, with "every section of the Museum [being] a chapter in the great book of Universal Knowledge."[5] Closer inspection, however, reveals a far more subtly nuanced correspondence between collection and collector, and that, in fact, the museum could not have successfully presented its microcosmic model without Kircher's mediation, for Kircher acted as the literal (but, more importantly, as the *figurative*) gatekeeper and guide to his museum, granting access to the museum's meaning by activating its representation of terrestrial variety in a way that suggested an underlying divine unity. Because of this inseparability, Athanasius Kircher and his museum represented the conjoined, embodied center of all orthodox natural philosophy within the center of the larger incorporated body of the Roman Catholic Church. If the Church in Rome envisioned itself as the center of the globe, the Church also maintained the centrality of that very same globe in the universe with the trial and condemnation of Galileo's heretical theory of heliocentricity in 1633. Kircher's museum defended both orthodox claims by manifesting an authoritative, Catholic vision of all known scientific knowledge with Kircher, his museum, Rome, Catholicism, and the Earth forming inseparably unified, universal centers.

A member of the English Royal Society, John Evelyn, wrote the first known description of Kircher's museum as it appeared in 1644. At that time, the museum fit into the Jesuit's "own study…[wherein] he shew'd us his perpetual motions, catoptrics, magnetical experiments, models, and a thousand other crotchets and devices…."[6] This initial collection suggests quite humble beginnings for what the museum became in 1651 when the patrician Alfonso Donnino donated his large private collection of art and antiquities to the

1 Cited in Paula Findlen, "Scientific Spectacle in Baroque Rome: Athanasius Kircher and the Roman College Museum," in *Jesuit Science and the Republic of Letters*, ed. Mordechai Feingold (Cambridge, MA: MIT Press, 2003), 259.

2 Cited in Findlen, "Scientific Spectacle in Baroque Rome," 259.

3 Cited in Daniel Stolzenberg, "Introduction: Inside the Baroque Encyclopedia," in *The Great Art of Knowing: The Baroque Encyclopedia of Athanasius Kircher*, ed. Daniel Stolzenberg (Stanford, CA: Stanford University Libraries, 2001), 1; Joscelyn Godwin, *Athanasius Kircher's Theatre of the World: The Life and Work of the Last Man to Search for Universal Knowledge* (Rochester, VT: Inner Traditions, 2009), 14; Joscelyn Godwin, *Athanasius Kircher: Renaissance Man and the Quest for Lost Knowledge* (London: Thames and Hudson, 1979), 7.

4 Godwin, *Athanasius Kircher*, 11.

5 Paula Findlen, "Un incontro con Kircher a Roma," in *Athanasius Kircher: Il museo del mondo*, ed. Eugenio Lo Sardo (Rome: De Luca, 2001), 41-42.

6 P. Conor Reilly, S.J., *Athanasius Kircher, S.J.: Master of a Hundred Arts, 1602-1680* (Wiesbaden-Rome: Edizioni del Mondo, 1974), 148.

Roman College.[7] Henceforth, Kircher the private collector became Kircher the public impresario and essentially the official Catholic world-builder in miniature with his power of arcane, occult, and seemingly empirical sciences fused with the sanctification of the Church that supported and promoted him.

Upon arrival, visitors were announced through the use of a rudimentary form of an intercom system invented by Kircher and made of a "long brass-trumpet embedded in the wall" connecting the entrance of the College to Kircher's studio/workshop.[8] Like an occult magus, Kircher led only a chosen number of individuals through the collection's gate to be "struck by the sound of an organ that 'imitated the singing of every type of bird and the clangorous ringing of Egyptian bells.'"[9] Beyond this entrance-way, Kircher's museum consisted of a single 77 foot-long corridor set perpendicular to three smaller galleries on the third floor of the Roman College immediately adjacent to the library.[10] Within these spaces, the collection presented to the casual observer much as they might have expected of any seventeenth-century European cabinet-of-curiosity. Among other things, this included "the tail of a siren and the bones of a giant," amber-encased animals and a stuffed crocodile, works of art by Guido Reni and GianLorenzo Bernini, instruments of alchemy, Classical and Chinese statuary, fragments of ancient inscriptions, one of the most impressive displays of ethnographic materials in all of Rome, numerous portraits of generous donors or important visitors, and a "complete set of Kircher's publications."[11] Amidst this multitude, a series of four or five scale-model replicas of famous Roman obelisks (between 4.5 and 6 feet tall—with pedestals) stood at intervals along the center of the corridor and marked the visitor's progress through the museum.[12] Despite the reality of their modest size, the museum catalogue's frontispiece amplified their dimensions as part of an exaggerated perspective of the entire museum, hence suggesting the relative importance of the obelisks in the museum's imagined space.[13]

Beyond the obelisks, what distinguished Kircher's museum and impressed visitors most were those objects used and made by Kircher himself. These included many machines and instruments Kircher built for his experiments to elucidate certain ideas of natural philosophy, or simply to delight and amuse with small-scale spectacles. It was the presence of these machines and mechanical devices that led Kircher to claim in 1671 that, "No foreign visitor who has not seen the Roman College museum can claim that he has truly been in Rome."[14]

One contraption, in particular, illustrated the museum's ideologically didactic intentions with respect to cosmology, and yet it has survived in only a single description. In his 1653 description of the museum and its "artificial wonders," G.P. Harsdörffer included a brief note about some manner of machine that he had seen therein that demonstrated "How the Motions of the Planets are shown in glass spheres."[15] By itself, this bit of information would offer nothing more than another example of Kircher's penchant for entertaining devices displaying his mechanical aptitude. Yet, even though Harsdörffer did not specify whether the "Motions of the Planets" revolved around the Earth or the Sun, Kircher clearly enunciated his views on the issue a short time later in 1656 and again in 1660 with the publication of *The Ecstatic Celestial Journey*, a work that he called his "verdict and opinion about the nature, composition, and working of the celestial globes."[16]

Written in the form of a fictional dialogue between Kircher's alter-ego Theodidactus and an angel named Cosmiel, the

7 Findlen, "Scientific Spectacle in Baroque Rome," 231.

8 Ingrid Rowland, *The Ecstatic Journey: Athanasius Kircher in Baroque Rome* (Chicago: University of Chicago Press, 2000), 6; Michael John Gorman, "Between the Demonic and the Miraculous: Athanasius Kircher and the Baroque Culture of Machines," in Stolzenberg, *Great Art of Knowing* (see note 3), 61.

9 Cited in Valerio Rivosecchi, *Esotismoin roma barocca, studi sul Padre Kircher* (Rome: Bulzoni, 1982), 142. Access to the collection was not guaranteed and, as the curator of the collection related in 1716, "Only from time to time were locals…allowed in…." Cited in Findlen, "Scientific Spectacle in Baroque Rome," 260.

10 Paula Findlen, *Possessing Nature: Museums, Collecting, and Scientific Culture in Early Modern Italy* (Berkeley: University of California Press, 1994), 126-27; Findlen, "Scientific Spectacle in Baroque Rome," 227; Findlen, "Un incontro con Kircher," 41.

11 See Rivosecchi, *Esotismo in roma barocca*, 142-45; Findlen, "Un incontro con Kircher,"41; Silvio A. Bedini, "Citadels of Learning: The Museo Kircheriano and Other Seventeenth Century Italian Science Collections," in *Enciclopedism in Roma Barocca: Athanasius Kircher e il Museo del Collegio Romano tra Wunderkammer e museo scientifico*, ed. Maristella Casciato, Maria Grazia Ianniello, and Maria Vitale (Venice: Marsilio Editori S.P.A., 1986), 259-60; Rowland, *Ecstatic Journey*, 6; Reilly, *Athanasius Kircher, S.J.*, 150.

12 While Rivosecchi argues that there were five scale-model obelisks, the general consensus seems to be that there were four. See Rivosecchi, *Esotismo in roma barocca*, 147; Godwin, *Kircher's Theatre of the World*, 46; Sergio Donadoni, "I geroglifici di Athanasius Kircher," in Lo Sardo, *Athanasius Kircher* (see note 5), 102-06.

13 Bedini, "Citadels of Learning," 260.

14 "Nessun visitatore straniero che non abbia visto il Museo del Collegio Romano pù affermare di essere veramente stato a Roma." Cited in Rivosecchi, *Esotismo in roma barocca*, 141; Reilly, *Athanasius Kircher, S.J.*, 146-47; Paula Findlen, ed., *Athanasius Kircher: The Last Man Who Knew Everything* (New York: Routledge, 2004), 31.

15 "'Künstliche Wunderwerke'…'Wie der Planeten Lauff in gläsernen Kugeln zu weisen.'" Cited in John Fletcher, "Kircher and Astronomy: A Postscript," in Casciato, Grazia Ianniello, and Vitale, *Enciclopedismo in Roma Barocca* (see note 11), 134-35.

16 "'La mia sententia e opinione intorno la natura, compositione, e fabrica dei globi celesti.'" Cited in Fletcher, "Kircher and Astronomy," 134. Kircher's assistant, Gaspar Schott, explained the genesis of the work in the second, expanded edition of 1660. Despite having often declined the desires of Schott to write a cosmological text, Kircher woke one

"fictitious rapture" of *The Ecstatic Celestial Journey* examined the many proposed cosmologies used to explain the nature of the universe, from the Ptolemaic and Egyptian to those of Tycho Brahe and Copernicus.[17] Despite its overturning of many revered Aristotelian ideas and the suggestion of an infinite universe, Kircher's dream-journey seems to have been an espousal of the cosmological model established by the Danish astronomer Tycho Brahe, a system Kircher claimed "best for 'saving the appearance of the heavens'…."[18] It is this system that appears prominently in the frontispiece of Kircher's work (Figure 3). With the Tetragrammaton-form of the name of God ("*YHVH*") in Hebrew above, the Jesuit stands in his robes holding a large compass with Cosmiel beside him, both dwarfed by a depiction of the universe with the Earth at the center, the Sun circling the Earth, and the Planets circling the Sun, all circumscribed by the perimeter of Fixed Stars.

Regardless of what he personally thought, *The Ecstatic Celestial Journey* demonstrated Kircher's commitment to creating a reasoned compromise between the orthodox, geocentric cosmology of the Church and the ever more accepted Copernican heliocentricity espoused by Galileo. Anticipating the criticism that the book did receive, Kircher ended the text by saying that, "'in case we seem to assert anything contrary to the decrees and instructions of the Holy Roman Church, we declare that we deny both the idea of the mobility of the earth, and of the inhabitants of the other heavenly globes.'"[19] Kircher's museum would have been the perfect setting in which to manifest exemplifications of these kinds of orthodox statements. Hence, it is very reasonable to hypothesize that the machine seen by Harsdörffer that visualized the "Motions of the Planets" did so as an explication of a very conservative cosmology.

As the heart of efforts to create a *Catholic* empirical science, Kircher's museum would have required a greater than lesser degree of demonstrable orthodoxy because (as the example of *The Ecstatic Celestial Journey* and its tentatively corresponding machine suggests) it represented an extension of and supplement to his published texts. In this "theatre of the world," as Kircher called it, he was the main actor and omniscient narrator who animated the museum-space into a rhetorical device displaying Catholic doctrine without necessarily having or wanting to call it Catholic.[20] As Findlen has written, "It goes without saying that…protestant visitors nurtured no little skepticism in confronting the conclusions Kircher reached based upon his objects; at the same time, they demonstrated a certain curiosity concerning the efforts to which the Jesuit went to reach such conclusions."[21] It was this curiosity about Kircher and his museum that mentally disarmed skeptics and schismatics, opening them ever so subtly to the persuasive power of Kircher's displays and demonstrations of the museum's curios and contraptions, all of which sought to suggest the controlled immensity of Universal Knowledge, the language of which was as arcane and inscrutable as the Egyptian hieroglyphics.[22] If Athanasius Kircher could claim knowledge of the hieroglyphics as his own, who could doubt his potential to know everything else that he claimed intellectual dominion over?

Kircher played the symbolic role prescribed to him by the Catholic Church very well, performing as an intermediary between Earth and Heaven. The presence and placement of the previously mentioned scale-model obelisks acted in a similar fashion. What is not so obvious is that in marking a visitor's passage through the space (just as the real-life obelisks marked space throughout Rome itself), the scale-model obelisks also marked time like a series of sundials, objects that had attracted Kircher's interest from his earliest days as a member of the Jesuit Order. For example, in 1632 Kircher had built for the Jesuit College in Avignon a sundial that indicated "not only the motions of the planets and the positions of the stars, but also the time differences throughout the world,"[23] and while visiting the island of Malta in 1637 Kircher had constructed something he called the Maltese Observatory that was inscribed in twelve languages, and "contained a planisphere, kept track of the Julian and Gregorian calendars, told universal time, charted horoscopes, and condensed all important medical, botanical, alchemical, Hermetic, and magical knowledge into a cube known as the 'cabalistic mirror.'"[24]

These devices and inventions functioned not only as instruments of scientific observation, but also as iterations of Kircher's attempt to subsume larger and larger bodies of knowledge into a more compressed and thus immediately visible comprehensibility. This ambition to compile and translate into a manageable form all of the knowledge existing in the world and universe also informed Kircher's interest

day after having been particularly "affected by the harmony of three musicians" heard the night before to proclaim that he had "dreamt a remarkable dream. I saw myself led by my guardian angel to the Moon, to the Sun, to Venus, to the rest of the Planets, to the very fixed stars and the outermost boundaries of the universe, and furthermore I found everything that I have so often spoken about…." Cited in Rowland, *Ecstatic Journey*, 77.

17 Daniel Stolzenberg, "Introduction," 6-7; Reilly, *Athanasius Kircher, S.J.*, 165-66.

18 Reilly, *Athanasius Kircher, S.J.*, 166.

19 Ibid.

20 Findlen, "Scientific Spectacle in Baroque Rome," 231; Rowland, *Ecstatic Journey*, 5.

21 "Va da se che i visitatori protestanti nutrivano no poco scetticismo nei confronti delle conclusioni cui Kircher giungeva basandosi sui suoi oggetti; al contempo tuttavia, dimostravano una certa curiosita riguardo gli sforzi che il gesuita compiva per elaborare tali conclusioni." Findlen, "Un incontro con Kircher," 42.

22 I.e., *scientia universalis*.

23 Findlen, *Athanasius Kircher*, 12.

24 Rowland, *Ecstatic Journey*, 10; Findlen, *Athanasius Kircher*, 20.

in discovering a universal language for conveying universal principles across linguistic divisions, a process that suggested the way in which this very same universal language carried with it universal knowledge.[25]

Kircher's interest in creating a universal language intersected with his interpretation of Egyptian hieroglyphics. In his opinion, the Egyptian hieroglyphics represented the earliest form of a symbolic universal language formed "not by…the assembling of verbs or nouns, but by marks and figures" that communicated the ancient Egyptian's understanding of universal knowledge since the hieroglyphs "conceal the full meaning of the highest mysteries of nature and Divinity."[26] Because of their polyvalence, Kircher read the hieroglyphics as a system of "historical, physical, ethical, and metaphysical/theological" levels of interpretation that allowed him to condemn the idolatry of the ancient Egyptians while also arguing for an Egyptian, pre-Christian Trinity with Osiris, Isis-Typhon, and Amon equivalent to the Father, Son, and Holy Spirit.[27] In this intellectual context, Kircher could argue that the Egyptian obelisks of Rome, his models of them, and their original or invented hieroglyphics indicated the existence of pre-Christian thought in ancient Egypt, hence making it permissible for a Christian appropriation of ancient Egyptian wisdom. The densely packed surfaces of the obelisks pointed beyond their own physicality with each hieroglyph being a part of a universal knowledge that had been lost but by Kircher recovered for the sake of the Catholic Church's claims upon universality and the possession of universal truth.

Kircher's attempt to represent these systems of universal language and knowledge found visible form in his Roman museum. Here, the abstract signs and symbols provisionally found in Kircher's many texts became physically manifested in the museum's collection, the contents of which provided the informed visitor with a countless array of productive juxtapositions communicating encoded associations and meanings.[28] In this way, entrance into the museum could be a form of transcendence from physical variety into metaphysical unity, if and only if the visitor knew how to read the signs properly. While the placement of the collection's objects may have changed periodically, the position of five frescoed roundels on the ceiling did not. And even if they appear out of order in the museum catalogue frontispiece, it is to the ceiling's roundels that the obelisks point directly in the museum catalogue's frontispiece as they lead the eye and the mind from earth to the heavens.

It is this implied correspondence between heaven and earth that each of the ceiling's five ovoid images depicted, using different occult or hermetic iconography, and with at least four of the images referring obliquely to Kircher as ultimate authority on interpreting the museum as a scale model of universal knowledge. The roundel closest to the entrance, for example, showed a salamander amidst flames and surrounded by inscriptions that read, "There is no realm, nor anything, nor any place or region in which is not found written the Tetragrammaton, name of God, down to the last bit of human body and soul" and "Whoever will know the bond by which the lower is united with the upper world will discover the mysteries of nature and will become the author of miracles."[29] It is Kircher who is impervious to the flames (in this context) of "arduous study" and also the symbolic guide for those visitors wishing to learn of the mysterious chain linking the lower and upper worlds.[30] For as Cosmiel had been a cosmic guide to Kircher, so did Kircher become a guide for visitors of his implicitly cosmological museum.

Similarly, from the second roundel dangled an embalmed flying-fish (referred to as a "sea swallow") surrounded by inscriptions that read, "Wisdom is a unique treasure, whoever finds it is blessed and the friend of God, so that even if only human they demonstrate here below that divine resemblance" and "There is Heaven above and

25 This informed two of Kircher's publications in particular. In 1663, Kircher published "The New and Universal Polygraphy" (*Polygraphia Nova et Universalis*) in which he developed a universal language based upon the principles (after Raymond Llull and Giordano Bruno) of a highly sophisticated mnemonic system he called his "combinatory art" (*ars combinatoria*), the theory of which he slightly reformulated for the publication of "The Great Art of Knowing" (*Ars magna sciendi*) in 1669. Both of these works consisted of and promoted methods of combining a specific set of symbols signifying universal principles; doing so allowed the user to communicate across linguistic divisions, a process that suggested the way in which this very same universal language carried with it universal knowledge, based as it was on "universal categories in which all reality (both physical and abstract) could be classified" and combined using a synthesis of these Lullist categories with "icons from Kircher's interpretations of hieroglyphs." See Nick Wilding, "'If you have a secret, either keep it, or reveal it': Cryptography and Universal Language," in Stolzenberg, *Great Art of Knowing* (see note 3), 96-98.

26 According to the generally held belief that Kircher also upheld, the Egyptians concealed in their hieroglyphics four levels of meaning so that exegesis fundamentally depended upon the knowledge and intent of the individual: for the illiterate and ignorant, the most basic interpretation of the hieroglyphics suggested superficial fables and a form of literal history; only those at the beginning of their search for wisdom will be able to delve into the second, slightly deeper level of meaning, where the hieroglyphics communicate a form of mysticism; for those who learn to see into the third level of meaning, the hieroglyphics communicate a more symbolic, ethical message; for those wisest of men who know how to look to the deepest most profound underlying meaning, the Egyptian hieroglyphs communicate the Sublime, the "stories of the gods…which concern the intelligible world of archetypes." Daniel Stolzenberg, "Kircher's Egypt," in Stolzenberg, *Great Art of Knowing* (see note 3), 121-22.

27 Ibid., 122.

28 Rowland, *Ecstatic Journey*, 81-83.

29 "Non vi è Regno, ne alcuna cosa, ne alcun luogo o regione, in cui non si trovi scritto il tetragramma, nome di Dio, fino alle ultime fibre dell'anima e del corpo umano," "Chiunque conoscerà la catena con la quale il mondo inferiore è unito al superiore scoprirà i misteri della natura e diverrà autore di miracoli." Cited in Rivosecchi, *Esotismo in roma barocca*, 146.

30 "Ardua studia." Cited in ibid.

there is Heaven below; everything is above and below, understand this and you will succeed."[31] These inscriptions urge the visitor to consider Kircher as that blessed friend of God who, like the flying-fish, passed from one element to another, while concurrently pointing directly to the museum as the Catholic cosmos made small, the place where Kircher had gathered everything terrestrial as an imagined resemblance to everything celestial and divinely unified. If the first roundel portrayed Kircher as guide to his museum, the second roundel provided the reason for trusting in his judgment and sagacity.

The fourth roundel strengthened this suggestion by depicting a young man pouring flowers from a cornucopia surrounded by an inscription that read, "Only he who contemplates the hand of God in the works of Art and Nature can truly say to have entered into the office of Wisdom and Virtue."[32] Kircher was that man who, after having contemplated all that the hand of God had produced (and as found in the museum) would, like the water-carrier, willingly pour his boundless knowledge of the terra-firma and the firmament into the minds of those sufficiently prepared and open to receive it.[33]

Examined together, Athanasius Kircher intended for these images and their corresponding inscriptions to be understood as a form of neo-hieroglyphs; intellectually accessible on various levels of meaning depending upon the viewer's knowledge and experience.[34] Essentially, then, the obelisks marked terrestrial passage through Kircher's museum while pointing towards the heavens where the roundels functioned as a series of puzzles or tests of hermetic knowledge to distinguish those who knew from those who did not. Like initiates, the learned passed from fresco to fresco as if through a series of gates of initiation, each granting ever-higher levels of perceived truth or explication from Kircher himself as hierophant. For the less learned, the frescos might have simply delighted with their fanciful images while also deepening appreciation for Kircher's intellect, so immense was the wisdom apparently at his command and implied by the near indecipherability of his museum.

It was because of the prominent inclusion of this form of iconography that Kircher's museum became inseparably identifiable with Kircher the man. Hence, because of the presence of the curator, the collection appeared before the eyes and minds of visitors from "all the nations of the world" less as a physical edifice and more as an intellectual construct whose scale was both universal and human.[35] It was because of the person of Athanasius Kircher that visitors could experience the museum as a collection of universal proportions that seemed to teach progressive, scientific thought while overlooking the actuality. This is to say that, trusting in the person of Athanasius Kircher allowed visitors to trust in the museum even though its prime directive was to propagate the fundamentally conservative geocentric belief-system of the Catholic Church. Acting upon this cognitive dissonance, the Church deployed Kircher as its designated guide to an intellectual edifice that promoted the Church as the arbiter of a cosmos-encompassing, scientific truth.

Yet, Kircher's promotion of analytical observation subverted the museum's instantiation of Catholic ideology as bounded visualization of all things mundane and ineffable.[36] For if the roundels on the museum's ceiling could be believed, Father Athanasius Kircher had transcended the blind faith of orthodoxy through his empiricism into a form of unbounded consciousness of the relationships between heaven and earth, a sublimity of thought and knowledge that Kircher alone had seemed to achieve and that placed him beyond circumscription or regulation by the Church. This seems most appropriate, given that in Greek the name *Athanasius* means "immortal."[37]

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31 "La Sapienza è un Tesoro ineguagliabile, chiunque la trova è beato: l'amico di Dio, anche se di aspetto umano, mostra sotto di esso sembianze divine," "Vi è cielo in alto, vi è cielo in basso, tutto è sopra e tutto è sotto, comprendi questo e riuscirai." Cited in ibid.

32 "Solo chi nelle opera dell'Arte e della Natura contempla la mano di Dio può veramente dirsi entrato nell'officina della Sapienza e della Virtù." The other inscription reads, "Nulla è piu dolce che sapere tutto." Cited in ibid., 147.

33 The fifth and final roundel departs slightly from the iconography of the preceding four by representing three signs of the Zodiac: Pisces, Aries, and Taurus, all Spring 'signs' whose visibility and orientation suggest an imprecise date between late-February and early-May (in the Ptolemaic Tropical Zodiacal system). That these signs slightly correspond to the season of Kircher's birth must remain hypothetical; and yet, if Kircher used the Sidereal Zodiacal system, his portrayal as a water-carrier would make more sense since his sign would then be Aquarius, the Water-Bearer. Cited in ibid.

34 This could be likened to Kircher's explanation of the Pythagoreans, who "conveyed their teachings that their Master had learned from the Egyptians through riddles and symbols, reckoning that naked and open exposition was inimical to God and Nature…God [having] withdr[awn] himself from the senses of common, profane humanity, hiding understanding and knowledge beneath likenesses and parables of various sorts…[and yet] it would be welcome and acceptable to Him that those genuinely desirous of true wisdom should investigate his hidden mysteries along secret paths, and proceed to uncover the secret sacraments of His holy doctrine by this underground way." Cited in Rowland, *Ecstatic Journey*, 16.

35 John Fletcher, "Kircher and Duke August of Wolfenbüttel: Museal Thoughts," in Casciato, Grazia Ianniello, and Vitale, *Enciclopedismo in Roma Barocca* (see note 11), 285; Findlen, "Scientific Spectacle in Baroque Rome," 233.

36 The inscriptions in the fifth roundel specifically exhort viewers to seek knowledge, stating that, "Impara la Sapienza, figlio mio, essa infatti è preferibile allo scettro dei re e riempie gli uomini di tutto il bene che possono desiderare," since, "Chiunque, arriverà alla radice dell'ordine superiore e inferiore, non avrà più segreti sulla terra," as if "Nel cielo vi è il fiume Gehon, ad esso corrisponde Gehon, il Nilo: se scoprirai il suo mistero potrai realizzare ogni desiderio della tua vita." Cited in Rivosecchi, *Esotismo in roma barocca*, 147.

37 Rowland, *Ecstatic Journey*, 3.

Kircheriana Domus naturæ artisq; theatrum
Par cui vix alibi cernere posse datur.

AMSTELODAMI.
Ex officina Janssonio-Waesbergiana Anno MDCLXXVIII.

Figure 2. Georgius de Sepibus, *Romani collegii Societatus Jesu musæum celeberrimum*, 1678, page 1, Amsterdam, Ex officina Janssonio - Waesbergiana, courtesy of the University of Chicago Library, Special Collections Research Center.

[*facing page*] Figure 1. Georgius de Sepibus, *Romani collegii Societatus Jesu musæum celeberrimum*, 1678, frontispiece, Amsterdam, Ex officina Janssonio - Waesbergiana, courtesy of the University of Chicago Library, Special Collections Research Center.

[*right*] Figure 3. *Iter extaticum coeleste*, 1660, frontispiece, Würzburg, Sumptibus Joh. Andr & Wolffg. Jun. Endterorum hæredibus, courtesy of the University of Chicago Library, Special Collections Research Center.