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Esoteric Knowledge and the Vulgar Parallels between Newton and Maimonides

By: José Faur

The impact of Rabbinic thought in general and that of Maimonides (1135-1204) in particular on the shaping of modern Europe is yet to be systematically explored. As a result of the dispersion of Iberian Jews and conversos, rabbinic doctrines and literature were disseminated throughout Europe. An important source for the spread of Jewish ideas was the study of Jewish culture and literature by Christian scholars. The sixteenth and seventeenth centuries knew an unprecedented upsurge of first-rate Christian Hebraists, and the translation of many Jewish classics into Latin. Of momentous importance was the Latin translation of *The Guide for the Perplexed* by the renowned Hebraist Johannes Buxtorf (1599-1664), and its publication in 1629 (and to a lesser extent his translation and publication of the *Kuzari* by Yehuda ha-Levi in 1660). Many of Maimonides's doctrines were particularly important to the Christian virtuosi in England who came to believe, like Maimonides, in the harmony of Scripture and science. Essential to this belief was the thesis that there are two levels to Scripture: an exoteric level accessible to the vulgar, and an esoteric level accessible only to the elite. Without this distinction, all attempts to reconcile the Scripture with science are impossible.

Spinoza (1632-1677) rejected this distinction. In fact, Spinoza never grasped the difference between literature and geometry. The literary 'truth' must be conceived as absolute and uniform to all readers, regardless of intellectual background and circumstances, exactly as in geometry. Because he saw no cogent distinction between an object out-there in nature and a text, he rejected the whole concept of *sensus communis* or Mental Law,² required for *literary* reading and interpretation (in contradistinction to graffiti).³ This is why he would not accept Maimonides' view

¹ See José Faur, *In The Shadow of History: Jews and* Conversos *at the Dawn of Modernity* (Albany, NY: SUNY Press, 1992), pp. 29-32.

² I have touched upon this fundamental concept in Rabbinic literary tradition in several works of mine, see my *Golden Doves with Silver Dots: Semiotics and Textuality in Rabbinic Tradition* (Bloomington: Indiana University Press, 198), pp. 136-137, and cf. pp. xvii, 12; "Basic concepts in Rabbinic Hermeneutics," *Shofar* 16, (1997), pp. 1-12; "Retórica y hemenéutica: Vico y la tradición rabínica," in ed. E. Hidalgo-Serna, et al, *Pensar Para el Nuevo Siglo*, vol. 3 (Napoli: La Cittá del Sole, 2001), pp. 917-938.

³ On these two types of reading, see my Golden Doves with Silver Dots, pp. 118-123; cf. ibid. pp. 1-17.

"that each passage in Scripture {2} admits of various, nay, contrary, meanings." For Maimonides, as in modern critical theory, the linguistic and intellectual apparatus of the reading public conditions the sense of the text. An obvious consequence of this view is that the meaning (or meanings) of a text cannot be learned from the text itself, apart from the literary traditions of the reading public. Because Spinoza admitted no distinction between geometrical and literal analyses, he rejected Maimonides's view – consistent with Jewish literary tradition-- that the hermeneutics of the Scripture (as well as of all literary compositions) requires the grasping of the intellectual and cultural values of the linguistic community *outside* the text.⁵ Disapprovingly, he pointed out that Maimonides "supposes that the sense of Scripture cannot be made plain from Scripture itself," and consequently, "the true sense of Scripture cannot be made plain from itself, and must not be there sought." Therefore, he concluded, Maimonides's hermeneutics is "clearly useless: to which we may add, that it does away with all the certainty which the masses acquire by candid reading, or which is gained by any other persons in any other way. In conclusion, then, we dismiss Maimonides' theory as harmful, useless, and absurd."6

Spinoza's rejection of Maimonides's hermeneutics is essential to justify his reading of the Scripture. By denying the two levels of understanding Scripture, an exoteric level available to the vulgar and an esoteric level accessible to the elite, the Scripture becomes vulnerable to the type of Biblical criticism initiated by Spinoza.⁷

The purpose of this paper is to show that Newton (1643-1727) accepted Maimonides's distinction between the esoteric and the vulgar, concerning the understanding of both the Scripture and the laws of nature.

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Newton belonged to the small group of Christian Hebraists that flourished in Europe during the 17th century. Most of Newton's intellectual efforts were not about science but about religion, chronology and alchemy. "It is usually considered a blemish on Newton's life," remarked a historian of scientific ideas, "that he spent the last twenty years working on numerology from the Scriptures, and became impatient when people

⁴ Benedict de Spinoza, *A Theologico-Political Treatise*, trans. R. H. M. Elwes (New York: Dover Publications, 1951), VII, p. 115.

⁵ Arabic speaking Jews designated the special instruction required for reading a literary text *talqin*. See my *Homo Mysticus: A Guide to Maimonides's Guide for the Perplexed* (Syracuse: Syracuse University, 1999), p.111.

⁶A Theologico-Political Treatise, VII, pp. 117-118.

⁷ For some insights on the hermeneutical strategies of the *converso*, see my "Sánchez' Critique of *Authoritas: Converso* Skepticism and the Emergence of Radical Hermeneutics," in ed. Peter Ochs, *The Return to Scripture in Judaism and Christianity* (New York: Paulist Press, 1993), pp. 256-276.

asked him questions about physics."8 This was also true during the most productive period of his life, when he made his famous scientific discoveries. Newton's main intellectual efforts focused on the areas of religion, history, and esoteric studies. Referring to the period when he entered Cambridge until the publication of the Principia (1661-1687), the famous British economist Lord Keynes (1883-1946), who saved a large portion of Newton's papers (now at King's College, England) for posterity, wrote:

During these twenty-five years of intense study mathematics and astronomy were only one part, and perhaps not the most absorbing, of his occupations. Our record of these is almost wholly confined to the papers, which he kept and put in his box when he left Trinity for London.9

His religious views affected his scientific writings. David Castillejo (who catalogued the Newton's manuscripts in the Yahuda's collection at the Hebrew University) noted the remarkable fact that Newton used certain numerological symbolism, particularly the numbers three, seven, and ten taken from the Temple of Solomon to structure his Opticks. According to Newton, the Temple was built horizontally in units of ten, and vertically in units of three, seven and eight. His Opticks consists of seven books arranged into three parts; it opens with eight Definitions, eight Axioms, and eight Propositions, a triple row of eights. "It is likely," wrote Castillejo, "that this is only the tip of an iceberg revealing the presence of much more complicated meaning, proportion and intent in his work."10

In an earlier study I identified Isaac Newton's Hebrew teacher with R. Isaac Abendana (c. 1640-c. 1710). 11 Abendana arrived at England in 1662 and began teaching Hebrew at Cambridge in 1663 -- one year after Newton entered Trinity College. Abendana was an accomplished scholar. He was the author of the first book in English written by a Jew, Of the Polity of the Jews (1706). At the urgeing of Cambridge theologians, he translated for the first time the entire *Mishna* into Latin. ¹² Newton knew Hebrew {3} well¹³ and wrote in that language. ¹⁴ It is safe to assume

⁸ Giorgio de Santillana, "The Seventeenth-Century Legacy," in his *Reflections on Men and Ideas* (Cambridge, Mass.: The M. I. T. Press, 1968), p. 179.

Lord Keynes, "Newton, the Man," in The Royal Society Newton Trecentary Celebrations

⁽Cambridge: Cambridge University Press, 1947), p. 30. ¹⁰ David Castillejo, "A Report on the Yahuda Collection of Newton's MSS," (found in the file on Newton, at the Jewish National and University Library at Jerusalem), 8. ¹¹ José Faur, "Newton, Maimonides, and Esoteric Knowledge," *Cross Currents*, Winter 1990, pp. 527-

¹² See Israel Abrahams, "Isaac Abendana's Cambridge Mishna and Oxford Calendars," *Transactions*, Jewish Historical Society of England, 8 (1915-1917), pp. 98-117.

¹³ See Louis Trenchard More, *Isaac Newton: A Biography* (New York: Dover Publications, 1962), p. 39. Although More did not know a word of Hebrew, characteristically, he regarded Newton's knowledge of Hebrew as minimal. For a better evaluation, see Gale E. Christianson, In the Presence of the Creator: Isaac Newton and His Times (New York: The Free Press, 1984), p.49.

¹⁴ See Ms. Yah. 13.2, pp. 5b, 17a-b, 18a, 19a, 22b; Ms. Kaynes 2, p. 17a.

that Abendana was also the teacher who introduced Newton to the subtleties of rabbinic thought and texts. Newton's knowledge of rabbinics was extensive and highly specialized. To illustrate, when expounding the apocalyptic conflict of Gog and Magog, Newton refers to the Targum or Aramaic Version to Esther (2: 12), as well as to *Vayvigra Rabba*, and the commentaries of Se'adya Ga'on and Ibn 'Ezra. 15 In the analysis of a rabbinic passage, Newton records the view of R. Aharon ha-Levi (13th century), the supposed author of Sefer ha-Hinnukh¹⁶ and his disagreement with Rashi. He also refers to the Rabbinic work Sifra, and the interpretation made by R. Aharon ibn Hayyim (b. ca. 1560), the author of *Qorban Aharon* (Venice, 5369/1609). Tater on, he discusses the Seder Ma'amadot (the participation of the Israelites in the daily sacrifices) and quotes the opinion of Bertinoro on the Mishna Yoma (7:1). 18 There are extensive copies of passages from the Babylonian and Palestinian Talmud in Latin in Newton's own hand writting. 19 No Jew in England, with the exception of R. David Nieto (1654-1728), had this mastery of rabbinic literature.

Newton was essentially and fundamentally a Maimonidean. His interest in Maimonides is well documented. In addition to four books of Maimonides Legal Code in Latin,²⁰ as well as Pococke, *Porta Mosis* (1655) in Hebrew and Latin found in his library,²¹ there are long excerpts of the Latin translation of Maimonides' *De Cultu Divino* in Newton's own hand,²² as well as thousands of words copied by Newton from other works of Maimonides legal writings in Latin.²³ His interest in Maimonides transcended the realm of the purely intellectual and scholarly; Maimonidean views and ideologies helped shaped his deepest personal beliefs and historiography. This matter was investigated by Lord Keynes. After a close study of Newton's writing in his possession, Lord Keynes concluded:

¹⁵ See H. McLachlan, Sir Isaac Newton Theological Manuscripts (Liverpool: University Press, 1950),

p. 135.

There is a book by Johann Heinrich Hottinger, *Juris Hebraerorum* (Zurich, 1655), based on this

¹⁷ See Yah. Ms. 13.2, 21b-22a. ¹⁸ Yah. Ms. 13.2, 22b.

¹⁹ See A Catalogue of the Portsmouth Collection of Books and Papers written by or belonging to Sir Isaac Newton, prepared by H. R. Leard, G. G. Stokes, G. C. Adams, G. D. Liveing (Cambridge: Cambridge University Press, 1888), p. 29 #2; Yah. Ms. Var. 13.2, 18a-22b. On the Latin translations of the Talmud, see Erich Bischoff, Kritische Geschichte der Talmud-Ubersetzunger (Frankfort: J.

Kauffmann, 1899).
²⁰ See A Catalogue of the Portsmouth Collection of Books and Papers written by or belonging to Sir Isaac Newton, p. 85.

21 See A Catalogue of the Portsmouth Collection of Books and Papers written by or belonging to Sir

Isaac Newton,, p. 91.

²² See note below.

²³ See, for example, A Catalogue of the Portsmouth Collection of Books and Papers written by or belonging to Sir Isaac Newton, p. 29 #2, and p. 30 #16; Yah. Ms. 13.2, 1a-18a. Cf. Theological Manuscripts, p. 16. He seems to have used the translation of Ludovicus de Compiegne Veille, De Cultu Divino (Paris?), cf. Newton, "The Language of the Prophets," Keynes Ms. 5, chapter 2, pp. 9, 10. On the translations of Maimonides' Mishne Tora in Latin, see Aaron L. Katchen, Christian Hebraists and Dutch Rabbis (Cambridge, Mass.: Harvard University Press, 1984).

Very early in life Newton abandoned orthodox belief in Trinity.... It may be that Newton fell under Socinian influences, but I think not. He was rather a Judaic monotheist of the school of Maimonides. He arrived at this conclusion, not on so-to-speak rational or sceptical grounds, but entirely on the interpretation of ancient authority. He was persuaded that the revealed documents give no support to the Trinitarian doctrines, which were due to late falsification. The revealed God was one God.²⁴

We can understand now why such a deeply religious man as Newton did not attend Church.²⁵ In fact, because of his religious beliefs he declined the position of Master of Trinity College at Cambridge; instead he came to London to take the position of Warden (1696) and then Post Master (1699) of the mint. As noted by Keynes:

Newton's proverbial fear of controversy, his suspicious attitude and neurotic behavior, his obsession with secrecy, and his eventual departure from Cambridge to an administrative position in London --all this, become perfectly clear in light of the dreadful secret he had to hide all his life. But this was a dreadful secret which Newton was at desperate pains to conceal all his life. It was the reason why he refused Holy Orders, and therefore had to obtain a special dispensation {4} to hold his Fellowship and Lucasian Chair and could not be Master of Trinity. ²⁶

The distinction between an exoteric level of understanding the Scripture, accessible to the masses, and an esoteric level reserved for the intellectual elite, is the corner stone of Maimonides's hermeneutics. According to Maimonides, the Scripture and Rabbis encoded both the esoteric aspects of nature and the divine, in riddles and metaphors.²⁷ The reason for encoding esoteric knowledge is that the Tora was designed for all, included the vulgar and uneducated. Esoteric knowledge, however, requires intense preparation and high sophistication. To expose the *sodot* ("secrets")²⁸ and *sitre tora* ("cryptograms of the Tora")²⁹ encoded in Prophetic and Rabbinic literature to the

²⁴ See Richard de Villamil, *Newton: The Man* (Reprint of the 1931 edition, New York: Johnson Reprint Coporation, 1927), p. 30.

²⁵ See Gale E. Christianson, In the Presence of the Creator: Isaac Newton and His Times (New York: The Free Press, 1984), pp. 257-258.

²⁶ Lord Keynes, "Newton, the Man," pp. 30-31.

Moses Maimonides, *The Guide for the Perplexed* (henceforth: *Guide*), "Introduction," p. 3; ll. 18-23; I, 35, p. 54, Il. 20-28. All quotations proceed from the Arabic text, Dalalat al-Ha'irin, edited with variant readings by Issachar Joel (Jerusalem: J. Junovitch, 5691 [1930/31]); the translations are mine. Subsequent references are given in the text according to section, chapter, page and line. ²⁸ *Guide*, "Introduction," p. 2, ll. 16-29.

²⁹ *Guide*, "Introduction," p. 5, ll. 16-17.

unlearned would be as harmful as feeding a baby "wheat-bread, meat, and wine." To resolve this quandary the Tora formulated the esoteric material in equivocal language that the vulgar would understand at the exoteric level, while communicating at the same time an esoteric wisdom that only the elite could detect and properly decode.³¹

On the basis of the Rabbinic doctrine that the "Tora expresses itself in the language of man,"³² Maimonides taught that the Scripture describes the Deity in anthropomorphic terms, to accommodate itself to the ways of humankind.33 Accordingly, these passages must be understood allegorically. 34 The anthropomorphic expression used in the Scripture about God, such as 'hearing,' 'seeing,' 'speaking,' 'acting,' 'living,' etc., were designed to accommodate the opinion of the vulgar. Newton held a similar view:

But, by way of allegory, God is said to see, to speak, to laugh, to love, to hate, to desire, to give, to receive, to rejoice, to be angry, to fight, to frame, to work, to build; for all our notions of God are taken from the ways of mankind by a certain similitude, which, though not perfect, has some likeness, however.³⁶

When asked to reconcile the account of creation with science, Newton answered that it was "artificially adapted to the sense of the vulgar." In his characterization of nature. Moses did not intend "to correct the vulgar notions...but to adapt a description of the creation as handsomely as he could to the sense and capacity of the vulgar." ³⁷ Because Moses was addressing the vulgar, he had to use "figurative expression," such as "windows or floodgates of heaven" (Gen 7: 11; 8: 2) that must not be taken literally:

For Moses, accommodating his words to the gross conceptions of the vulgar, describes things much after the manner as one of the vulgar would have been inclined to do had he lived and seen the whole series of what Moses describes.³⁸

Newton recognized that there are elements pertaining to creation that the vulgar could not grasp, but that Moses could not have omitted. On the one hand, these elements

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³⁰ Guide, I, 33, p. 48, II. 1-9. For the qualifications of the chosen elite, see Guide, "Introduction," p. 2, ll. 14-24; I, 34, p. 52, l. 6, p. 53, l. 19.

31 *Guide*, "Introduction," p. 5, ll. 15-18; I, 33, p. 48, ll. 9-12. See *Homo Mysticus*, pp. 165-167.

³² Berakhot 31b; cf. Abot de-R.Natan XXXIX.

³³ Mishne Tora, Yesode ha-Tora I, 9; Guide, I, 26, 29, 59; see Golden Doves, p. 151 n. 54; Homo Mysticus, p. 167.

³⁴ Mishne Tora, Yesode ha-Tora I, 9.

³⁵ See *Guide*, I, 46; and 51, 53, 55, 57, 60, etc.

³⁶ Principia, trans. by A. Motte and ed. by Florian Cajori (Berekely: University of California Press,

³⁷Cited in Sir David Brewster, *Memoirs of the Life, Writings, and Discoveries of Sir Isaac Newton*, vol. 2 (Edinburgh: Thomas Constable and Co., 1855), p. 450.

³⁸ *Memoirs*, vol. 2, p. 453.

could not be exposed to the vulgar, simply, because the vulgar would not be able to grasp them. On the other hand, Moses could not have omitted them, as his account of creation would then appear faulty. Considering this specific predicament, Moses' account of creation is indeed remarkable:

Omit them he could not without rendering his description of the creation imperfect in the judgment of the vulgar. To describe them as they were in themselves would have made the narration tedious and confused, amused the vulgar, and become a philosopher more than a prophet. He mentions them, therefore, only so far as the vulgar had a notion of them.... Consider, therefore, whether anyone who understood the process of the creation and designed to accommodate to the vulgar not an ideal or poetical but a true description of it, as succinctly and theologically as Moses has done, without omitting anything material which the vulgar have a notion of or describing any being further than the vulgar have a notion of it, could mend that description which Moses has given us.

One of the most important doctrines taught by Maimonides is that God is not affected by outside perceptions as {5}humans are. God's knowledge and His perception of things external to Him, are categorically different than human's. Therefore all such attributes in Scripture must be interpreted allegorically. Newton, too, rejected the attribution of human perceptions or actions to God. God's perceptions and actions are dissimilar from those of man:

Whence also he is all similar, all eye, all ear, all brain, all arm, all power to perceive, to understand, and to act; but in a manner not at all human, in a manner not at all corporeal, in a manner utterly unknown to us. As a blind man has no idea of colors, so have we no idea of the manner by which the allwise God perceives and understands all things. He is utterly void of all body and bodily figure, and can therefore neither be seen nor heard nor touched; nor ought he to be worshiped under the representation of any corporeal thing. We have ideas of his attributes, but what the real substance of anything is we know not...much less, then, have we any idea of the substance of God.⁴¹

Since God's existence is categorically different than anything else, Maimonides maintained that He couldn't be known directly, 42 but only indirectly through His acts and creations. 43 Similarly, Newton maintained that, "We know him only by his most wise and excellent contrivances of things, and final causes." 44 Thus, Newton

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³⁹ *Memoirs*, vol. 2, pp. 452-453.

⁴⁰ See Guide III, 20-21; Mishne Tora, Teshuba V, 5; cf. Mishne Tora, Yesode ha-Tora II,10.

⁴¹ *Principia*, pp. 545-546.

⁴² Guide I, 57-58; III, 20, p. 348, ll. 20-21.

⁴³ Guide I, 34, p. 50, ll. 8-9; cf. 71, p. 126, ll. 27-28.

⁴⁴ Principia, p. 546.

concurred with Maimonides that although it is impossible to have an immediate knowledge of God, one could draw near Him through understanding His creations.⁴⁵

Because God's knowledge and presence are categorically different than human's, Maimonides argued that His omniscience and omnipresence do not interfere with human's knowledge and freedom. A similar point was made by Newton: God suffers nothing from the motion of bodies; bodies find no resistance from the omnipresence of God.

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Scholars have overlooked the fact that according to Maimonides not only the study of Scripture, but also of nature involves two distinct levels of comprehension: an exoteric level accessible to all and an esoteric level accessible only to the elite. There are scientific studies, such as those involved in medicine and geometry, that are accessible to all; unlike the esoteric aspects of the laws of physic and astronomy that are beyond the intellectual scope of the vulgar. 48 Concerning the esoteric aspects of nature, Maimonides wrote, "it is impossible to expound some of its premises as they really are." Indeed, there are things in nature of which "only a single aspect could be apprehended, while [all] other aspects remain unknown. It does not necessarily follow that since [an aspect of something] could be perceived, that then it could be known in its totality."50 Anticipating a view presently acknowledged by leading scientists, Maimonides pointed out that physical reality cannot be expressed in common speech; one is forced to speak about these subjects in "metaphors and riddles." ⁵¹ Maimonides regarded the esoteric aspects of the physical universe as "great mysteries," ⁵² and identified them with what the Rabbis call ma'ase bereshit, "the procedure of Creation."53 Thus, some aspects of nature are not revealed but only encoded in 'riddles' and 'cryptograms' that only the elite could detect and decode. This knowledge is conducive to, but not identical with, the ultimate knowledge of the divine, designated by the Rabbis ma'ase merkaba "the procedure of the Chariot." 54

⁴⁵ See the quotation in *Newton's Philosophy of Nature*, ed. H. S. Thayer (London: Hafner Press, 1974), p. 156.

⁴⁶ See Mishne Tora, Teshuba V, 5; Guide, III, 20, pp. 349, 1. 2-350, 1. 1.

⁴⁷ Principia, p. 545. Cf. Homo Mysticus, pp. 13-14.

⁴⁸ *Guide*, I, 34, p. 52, ll. 10-11. See below n. 56.

⁴⁹ *Guide*, "Introduction," p. 3, ll. 17-18; cf. ibid. I, 31-32.

⁵⁰ *Guide*, I, 31, p. 44, II. 1-2. Hence the basic skepticism fundamental to scientific knowledge and methodology, in contradistinction to mythical knowledge, cf. *Homo Mysticus*, pp. 102-105 and 225 n.

⁵¹ Guide, "Introduction," p. 4, ll. 18-19; 26-28.

⁵² *Guide*, "Introduction," p. 3, ll. 16-24.

⁵³ *Guide*, "Introduction," p. 3, l. 8; p. 5, ll. 7-8. For some insights on the concept of *ma 'ase bereshit* in Rabbinic literature, see *Golden Doves*, p. 36; *Homo Mysticus*, pp. 115-119.

⁵⁴ *Guide*, III, 51, p. 455, l. 28; p. 456, l. 5. For some insights on the concept of *ma'ase merkaba* in Rabbinic literature, see *Golden Doves*, p. 36; *Homo Mysticus*, pp. 25, 125.

Newton, too, believed that there is an esoteric aspect to the laws of nature not accessible to the vulgar. As with Scripture, there is an exoteric aspect to nature accessible to all, included the vulgar. At the same time, there is an esoteric aspect to that God did not *reveal* but *encoded* (in a Maimonidean style) in 'riddles' and 'cryptograms' that He had laid about in the universe, which the elite could decode. This is how Lord Keynes described Newton's outlook of the universe, as reflected in his papers:

...he [Newton] looked on the whole universe and all that is in it as a riddle, as a secret which could be read by applying pure thought to certain evidence, certain mystic clues which God had laid about the world to allow a sort of philosopher's treasure hunt to esoteric brotherhood. He believed that these clues were to be found partly in evidence of the heavens and in the constitution of elements (and that is what {6} gives the false suggestion of his being an experimental natural philosopher), but also partly in certain papers and traditions handed down by the brethren in an unbroken chain back to the original cryptic revelation in Babylonia. He regarded the universe as a cryptogram set by the Almighty -- just as he himself wrapt the discovery of the calculus in a cryptogram when he communicated with Leibniz. By pure thought, by concentration of the mind, the riddle, he believed, would be revealed to the initiate. He did read the riddle of the heavens. And he believed that by the same powers of his introspective imagination he would read the riddle of the Godhead, the riddle of past and future events divinely foreordained, the riddle of the elements and their constitution from an original undifferentiated first matter, the riddle of health and of immortality.⁵⁵

It seems, that Newton regarded the description of the universe in the *Principia* as accessible to all, and therefore, pertaining to the realm of the exoteric. Concerning this fundamental point, he remarked "that he first proved his inventions by geometry and only made use of experiments to make them intelligible, and to convince the vulgar." The meaning of this statement is that geometry --and by implication Spinoza's Cartesian and scientific methodologies-- pertain to the exoteric. Beyond the world of mechanics and mathematics, however, lay a vast, oceanic realm, which should not be sought in the *Principia* and *Opticks*. Not long before his death, Newton said:

I do not know what I may appear to the world; but to myself I seem to have been only like a boy, playing on the seashore, and diverting myself, in now and then finding a smoother pebble or a prettier shell than ordinary, while the great ocean of truth lay all undiscovered before me. ⁵⁷

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^{55 &}quot;Newton, the Man," p. 29.

⁵⁶ Quoted in *Isaac Newton: A Biography*, p. 610. For the reason that Maimonides regarded math and geometry as exoteric and therefore accessible to the vulgar, see *Homo Mysticus*, p. 225 n. 77.

⁵⁷ Quoted in Edward Neville da Costa Andrade, "Newton," *The Royal Society Newton Treentary Celebrations* (Cambridge: Cambridge University Press, 1947), p. 18.

Only the chasm between the realm of the exoteric and that of the esoteric, could explain how a man of such profound religious feelings as Newton, had omitted from the first edition of the *Principia* and the *Opticks* (1704), all mention of God, exposing himself to the charge of atheism. It seems that Newton understood that at the level of scientific analysis, God's active participation must remain indiscernible. Thus concurring with Maimonides that God's presence is fully perceived only by those able to decode the divine cryptograms laying about the realm of the esoteric.

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⁵⁸ See Cajori's valuable comment in the Appendix to the *Principia*, note 52, pp. 668-670; and E. W. Strong, "Newton and God," *Journal of the History of Ideas*, 13 (1952), pp. 148-150.