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Arnald of Vilanova: Physician and Prophet

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In the wake of the pioneering studies of Finke and Diepgen, written in the first decade of this century, scholarly interest in Arnald of Vilanova has increased steadily. Yet this increase in scholarly inquiry, far from bringing the figure of Arnald into focus, has produced two Arnalds: Arnald the physician and Arnald the prophet. The former is a scientist known in his lifetime and long after his death as the greatest physician of his age; the latter, a seemingly separate entity, is a prophet whose apocalyptic vision influenced both royal and papal courts at the turn of the fourteenth century. What is lost in their split image is the common conviction that informed both Arnald's medicine and his theology. In the absence of a coordinating vision, Arnald is left a failed figure on both counts.

Unfortunately, the peculiar facts that surround Arnald's texts have discouraged any synthetic approach. For one thing, it was not critical practice that first divided Arnald's theological works from his medical works, but the posthumous condemnation of his theological works in 1316. The condemnation was the final result of Arnald's defense of his apocalyptic ideas against the threats of the Court of Inquisition, with whom he had been in contention since his arrest under a charge of heresy in 1299. Arnald had run afoul of the Court when, on a diplomatic mission for James II of Aragon to Philip IV of France, he presented his tract *De Tempore Adventu Antichristi* to the Doctors at the Sorbonne. In the tract Arnald announced that the appearance of the Antichrist was imminent and that the world would end

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around 1378. The Parisian theologians were not overjoyed at this news--even less at Arnald's warning that the Church, in preparation for the event, must be drastically reformed. Arnald was promptly jailed and charged with heresy. It was only through the intervention of Philip's minister and Arnald's friend, William of. Nogent, that Arnald was spared further imprisonment. 2

More insulted than intimidated, Arnald launched a vigorous campaign in defense of his theological works, a defense which he pursued until his death on September 6, 1311. In the intervening years he badgered both popes and kings in defense of his theories, in an attempt to establish for his theological notions the same credibility and high esteem his medical opinions enjoyed. The years between his arrest and his death were the years of his greatest output of apocalyptic writings, many of which he took great pains to edit and present to Pope Boniface VIII, and later Celestine V, for inclusion in the Vatican archives. He presented others to various royal and ecclesiastical libraries across Europe.

The Writ of Condemnation of the Council of Tarragon in 1316 was directed specifically against these theological works. The medical works were not condemned. On the contrary, they remained extremely important scientific documents and were collected, copied, edited, printed, excerpted, and embellished over the succeeding centuries. But the consequence of their popularity was a loss of certainty both as to their dating and to their authorship. Many of the writings included in the bibliography of Arnald's medical works published in Haureau's *Histoire litteraire de France* in 1881 have been shown to be apocryphal, or at best of doubtful authorship.3

Establishing the authorship of the many medical writings which have been published under the name of Arnald of Vilanova constitutes a principle textual problem for historians of science. Until the very recent (1985) appearance of Michael McVaugh's exten-

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sive analysis of Arnald's medical works, 4 there was, in fact, no reliable basis for accepting or rejecting texts as authentically Arnaldian. In the absence of certainty on this most sensitive point, and determined to present Arnald as a

proto-scientist standing in the line of authors whose works lead ultimately to scientific medicine, historians of science initially developed an orientation toward the historical Arnald that anticipated any subsequent proof that any particular text was apocryphal: a mixture of biography, generalization, and admiration. No small amount of hero worship graces the picture of the Arnald that historians of science have drawn from the medical works of the Great Doctor, and no small number of apologies have been concocted to cover instances in which the proto-scientist seems exceptionally unscientific.

This is not to say that their praise of Arnald is undeserved. Arnald of Vilanova was *the* outstanding physician in Europe during the thirteenth century. His translations and commentaries on the works of Galen, Avicenna, AI-Kindi, and Hippocrates helped lift European medical practice out of the realm of folk art and connect it with classical Greek and Arabic medicine. His original works represented a singular advancement in the diagnostic theory of the time. He set up the medical curriculum at Montpellier, and it was through his influence that Montpellier became the leading center for medical education in Europe in the late Middle Ages. This is the Arnald who captured the imaginations of such leading historians of science as Lynn Thorndike and George Sarton, and more recently, Michael McVaugh. But historians of science will go along with Arnald's prophetic leanings only up to a point. McVaugh will say that "Arnald's unusual attention to philosophical medicine coincided with the development of his theoretical position, and one concern may well have inspired the other." Yet he will not go so far as to give the two concerns equal weight. He refers, instead, to the "blurred dualism" of Arnald's epistemology, and concludes that "it is the

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mystical element in Arnald's thought that restricts his rationalism" (McVaugh, "Arnald of Vilanova" 291).

In recent years, however, it has been just that "mystical element in Arnald's thought" that has commanded most attention from Arnaldian scholars. The major advancements in Arnaldian scholarship have come out of studies of Arnald's theological works by Church historians, especially by a growing number of historians interested in the phenomena of heresy and apocalyptic thought in the Middle Ages. We know to whom they were presented and on what occasions, although it is not always clear when they were first written. After Arnald's death in 1311 the religious writings which he had so long defended came under the shadow of the Inquisition. But they were not destroyed as the Council of Tarragon ordered. Good fortune, or perhaps some reluctance on the part of Arnald's correspondents to destroy his works, saved these texts, intact, for future study. Unlike Arnald's medical works, they were never edited for publication, never excerpted, and never embellished. Unfortunately, neither were Arnald's religious theories compared seriously with his theories of philosophic medicine with the end in view of finding the common impulse, if any, that informed both Arnald's scientific and his theological works.

The image of Arnald as apocalyptic thinker is, more often than not, interpreted in terms of "influence." Although Arnold's apocalyptic writings are admittedly outside the mainstream of thirteenth century mysticism, his name has been variously linked with that of Joachim of Fiori, 2 Joachim's follower Peter Olivi, 10 and with Abulafia, 11 a major figure in Jewish mystical thought. The question seems to be: Who influenced Arnald most intensely, and having been influenced, how well did Arnald rise to the standards of that influence? In these comparisons, Arnald almost always seems to be found wanting.

Harold Lee is convinced that Arnald's use of Joachimist themes is an indication of his commitment

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to Joachim's prophetic eschatological theories. He describes what he calls Arnald's "struggle" to "synthesize the areas of his knowledge" and his "attempts to develop an exegetical technique." Arnald, he says, "always sought to justify the Joachimist expectation" (Lee, "Scrutamini" 34). Gordon Left, harboring a similar assumption that the Joachimist "expectation" must be justified, makes the following comparison:

Thus he differed from the other main authorities of Franciscan Joachism--Olivi, Umbertino, and Angelo--as well as from Joachim himself, in not transposing the Bible into history. This affected his whole outlook. To begin with, [his writing] was essentially static and non-historical.... The effect is that Arnald's apocalyptic views became merely a series of citations rather than the unfolding of an historicism. Hence, they lack the element of excitement which was to be found in true Joachism. (Left, *Heresy* 78)

But failure to achieve "true Joachism" tells us very little of what "true Arnaldism" is about. Nor are we much more enlightened by Joaquin Carreras y Artau's notion that Arnald's writings were overwhelmingly influenced by Jewish exegetical methods though his knowledge of the works of Abraham ben Samuel Abulafia. Following I.F. Baer, 12 Artau traces a possible connection between Arnald and Abulafia, an esoteric cabbalist, who once "journeyed to Rome with the fantastic intention of converting the Pope" (Artau, "Apologista" 60), and who in 1285 wrote *Or-ha-Sekel* (*The Light of Intelligence*), which detailed the mysteries of the Tetragrammaton through an analysis of its letters, in the hope of converting Christians to Judaism. In 1292, when Arnald wrote his *Allocutio super significatione nomina Tetragrammaton*, according to Artau, "he merely inverts the proposition, intending to convert Jews to the faith of Christ" (Artau, "Apologista" 60).

On close inspection, however, Arnald's "Cab-

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balah" reveals itself as only marginally related to Abulgfia's "science of the combination of letters." For one thing, Arnald's numerology adheres to the Greek/Christian line from Pythagoras to Augustine, not the Pythagorean line as interpreted by the seventh-century Jewish mystics who framed the Cabbalah. For another, Arnald never held as his central activity the contemplation of either the letters of the alphabet or--although he did a thorough job of explicating its meanings in four languages--the *Tetragrammaton* itself. 14

The other matter of critical moment, Arnald's Joachimist leanings, is similarly tenuous. One of the primary arguments for Arnald's Joachimism is in his division of world history into three *status* and seven ages. Arnald describes the three *status* thus:

Quantum enim ad status personales ipsorum ordinauit quod essent tres principals, scilicet *conjugatorum*, per quem designatur persona Patris in deitate, propter circunstantias consonas proprietatibus, quarum una est non esse ab alio, quoniam status conjugatorum a nullo aliorum statuum sumit originem, sed alii ab eo. Alia est generare, quoniam ad generationem prolis principaliter ordinatur.

Alius status est *clericorum secularium*, qui carnaliter gignitur a predicto, et hanc circunstantiam personam Filii representat.

Tertius uero est status omnium regularium, qui quoniam oritur ab utroque predictorum, licet ab uno carnaliter et ab alio spiritualiter, ideo representat personam Spiritus Sancti. 15

The mark of Joachimism, says Marjorie Reeves, is the belief in a third age *in this world*. If this is so, then Arnald cannot qualify. His is a completely different arrangement of *status* and ages. For Arnald, Judgement follows immediately on Apocalypse; he makes no reference to Joachim's thousand-year reign of peace. 16 This is not to deny Arnald's obvious acceptance of a great portion of Joachimist

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thought. The question is, is acceptance equivalent to influence?

There is more than a grain of wisdom in Raoul Manselli's conclusion that "La formazione spirituale de Arnaldo none specificamente giochimitica" (Manselli, *Spirituali* 59). For reduction of Arnald's thought to influence calls up many objections, not the least of which is that reductive comparisons obscure the difference between Arnald's being "influenced" by a system--whether one devised by the cabbalists or one devised by Joachim of Fiore--and his appropriation of that system for his own ends. Moreover, there seems to be very little to recommend the assumption that certain obvious features, like Arnald's use of three *status* or his use of cabbalistic delineation, is better explained from outside Arnald's own works than from inside. Those critics who harbor such assumptions make no attempt to ascertain the function of those Joachim-like or Abulafia-like adaptations in Arnald's writings, nor do they attempt to show continuity between the various works in which we find these adaptations. Of course, they make no reference to Arnald's medical works at all.

My argument for criticism from internal evidence from both Arnald's medical and theological works is based in part on my study of Arnald's *Expositio Super Apocalypsi*, thle work which occupied the final years of one of Arnald's

greatest editors, Joaquin Carreras y Artau. Before this edition was published, only a few quotations had been printed in Finke's *Auf dem Tagen Boniface VIII* and Pou y Marti's *Visionarios, beguinos y fraticelos catalanes*. Artau's edition is one of the more recent, and consequently one of the least critically analyzed of Arnald's theological works. Early in my study I found that the *Expositio* would not yield to the usual kind of historical/cultural analysis that has been applied to Arnald's other theological works. Nor did the search for "influences" offer anything new. Not that the text did not offer opportunities to inject influence--it offered all too

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many. The *Expositio* proved to be not only typical, but hypertypical of Arnald's theological works. In it are to be found the same interpretations of Daniel:12 (*Expositio* VIII: 1, 8-10) and Matthew:24 (*Expositio* VIII: 14, 261-73) that Arnald uses in all his other tracts to measure the ages before the coming of the Antichrist. Here we also find Arnald's speculations on six-sixty-six, the number of the Antichrist (*Expositio* XIII: 18), the time of the destruction of the Antichrist (*Expositio* XIX: 19, 20, 21), the meaning of the Alpha and the Omega (*Expositio* I: 8, 365-396), the significance of the tetragrammaton (*Expositio* IX: 11, 116-18) and of the spiritual Pope (*Expositio* V: 5, 126 ff.). Here we see world history divided into three stages representing the Father, the Son, and the Holy Spirit (*Expositio* I: 11, 595-605), and meaning applied to Scripture in its threefold level levels: literal, allegorical, and moral (*Expositio* VI: 6, 171-206). In short the *Expositio* contains every element Arnald elaborates upon in every other theological work, and here each element is in its perfect scriptural order. Although Leff dismisses the *Expositio* as merely following "the accepted lines of biblical exegesis" (Leff, *Heresy* 179, n.1), it may well be that this, the exception to his "Joachimist" writings, is in reality the treatise in which the Arnaldian rules are defined.

For while the content of the *Expositio* is a compendium of propositions that Arnald explores elsewhere in his theological works, in structure it most closely resembles his medical writings--in particular his diagnostic commentaries. The controlling metaphor in the *Expositio* is the apocalypse as the course of a terminal disease. Arnald comments on John's *Apocalypse* in much the same way as he comments on classical descriptions of the course of leprosy or the onset of an epileptic seizure--as a sequence of symptoms. Unlike Olivi's commentary on the *Apocalypse*, 17 Arnald's *Expositio* is neither narrative nor historical. 18 It is tabular, point-for-point, verse-for-verse commentary on the unal-

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terable sequence of the *Apocalypse* of John. For Arnald, history is the history of the Church and the proper sequence of the apostles, the martyrs, the Church Fathers, the hermits, the saints, the pious poor, the Angelic Pope, and the Antichrist--all of whom must precede the second coming of Christ. When Arnald the Physician cast his severe and critical diagnostic eye on his own time, he had no doubt that the world had reached the stage at which the pious poor were emerging and that the Church must, if it was to escape the worst of the approaching last stages of the world's disease, institute a *regimen sanitas*, reform itself completely, or suffer the consequences.

According to Arnald's prognosis, in the near future two figures would emerge as opposing forces: an Angelic Pope and the Antichrist. 20 The former is described in Book X of the *Expositio*. It begins: "And I saw another angel.... "This angel is charged with the reform of the Church, and to this purpose promises an Angelic Pope whose character, to all intents and purposes, epitomizes the highest ideals of the Fraticelli. He is constant in his zeal because he does not seek the comforts of the flesh, nor the favor of men, nor put his hopes in worldly things. He contemplates the evangelical truths that govern the universal Church, the message of the letter of the sacred Scriptures and the prophecy of the Book of Revelations (*Expositio* X: 1).

In his commentary on the *Apocalypse*, Peter Olivi opposed the practitioners of true poverty to the corrupt administration of the Curial church, seen as the abode of the Antichrist. He did not name Boniface as the Antichrist, but his interpretation of the significance of recent events implicated Boniface all too well. Later, Benedict XI proved even more evil and threatening to the integrity of the Church than Boniface had been. From Arnald's point of view, however, neither "Antichrist" nor "Angelic Pope" was a matter of static and determined personality, but a matter of response. It was up to each Pope to choose whether he would represent the

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Antichrist or choose to be the Angelic Pope. Arnald was convinced that both would appear, but because he was not

writing history, but reading the signs as he saw them, Arnald did not take it upon himself to say who was to be the Angelic Pope any more than he would predict who would fall victim to epilepsy. His message to each of the popes was something of this nature: "Follow my prescription, and the Angelic Pope could be you." But his patients were, as patients tend to be, stubborn. Boniface told him to stick his medicine (Manselli, "Arnald ..., e i Papi" 150; McGinn, "Angel Pope" 165). When Arnald told Benedict he must reform the Church or die an ignominious death, Benedict had him arrested--and shortly afterward died an ignominious death (Manselli, "Arnald ..., e i Papi" 151-52). Arnald offered the designation "Angelic Pope" to Clement V, but Clement was "thinking about something else at the time" (Manselli, "Arnald ..., e i Papi" 153).

It is quite possible that Arnald considered himself sticking to his medicine throughout. The *Expositio* addresses theological matters, but it does so with a medical vocabulary. Arnald alludes to the *pestilentiae corporali*, that causes the corruption of the body (XXI: 21, 514): *medicos* number among the *doctores mundanos* (XVI: 4, 69). His use of words like *dorso* and *artu* (I: 11, 553, 561) and *superfluitatibus* (I: 20, 943; II: 12, 217; II: 20, 361; XXI: 4, 84)21 lend a tone of pathology to the work. Carreras y Artau reminds us, "the ends of medicine and of theology are parallel: as the doctor cares for the health of the body, the priest that of the soul. In dignity, however, medicine cedes to theology in the same way that the body is subjected to the soul" (Artau, *Obres Catalanes* II: 14). The metaphor is strong in Arnald's writings. Structural comparison of his *Expositio* and his diagnostic commentaries indicates that he approaches both medical and theological problems with the same procedure: observation of the symptoms, diagnosis of the malady, consultation with authoritative texts on the subject, prognosis, and prescription. At the con-

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clusion of the "Prima Visio" of the *Expositio*, in a manner typical of both his diagnostic and his apocalyptic writing, Arnald gives his prescription for the perfection of a corrupt church as a comprehensive list of requirements:

Sunt ergo quae requirunter ad perfectum correptorem ecclesiarum per ordinem supradicta, scilicet: ut sit similis Filio hominis, id est imitator Christi, ita scilicet, ut in vita perseveranter sit candidus per munditiam. Item quod superfluitates non solum carnales sed etiam spirituales restringat.

Item quod plenam sive magnam habeat sapientiam in notitia divinae veritatis.

Item quod in zelo custodiendi et promovendi veritatem divinam et in contemplatione ipsius ferveat perspicaciter. Item quod in operibus exempltitiis rutilet caritate. Item quod in doctrina sit efficax ad fecundandum animas er mundandum.

Item quod habeat auctoritatem spiritualem.

Item quod per judicialem sententiam resecet utriusque superflua. Item quod in conversatione cum aliis fulgeat imitatione Christi et apostolorum. Item quod praecones veritatis mittat cum auctoritate spirituali. Item quod eos animet sive ad constantiam praedicationis confortet. Item quod aenigmata vel dubia sacrae veritatis exponat sive declaret eis. (*Expositio* I: 20, 939-60)

Arnald's works are replete with such comprehensive lists and systematic categorizations in which he finds correspondence between the elements of abstract or occult constructs and categories in the material world. While the most widely discussed of these constructs are the Cabbalah, Joachim's *status*, numerology, and the progressive symbols of John's *Apocalypse*, the underlying metaphor that informs

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both Arnald's medical and his theological works is astrology. It is important to remember that in the thirteenth century astrology was an art dominated by physicians. Although it would be popularized in the later Renaissance and used as a means of mundane prediction, before the fifteenth century the use of astrology was primarily medical and only fully acceptable in that capacity. Arnald dared to extend his astrological diagnoses into the theological realm. He was one of the earliest writers to transpose astrological categories from their correspondence to the course of disease in the human body to a perceived correspondence to the course of human history. When Henry of Harclay at Oxford attacked Arnald's *De tempore adventus Antichrist et fine mundi*, his argument was not that astrology was a spurious science, but that the predictions of astrology could not be made precise enough to pinpoint the coming of the end of the world. 22

Arnald's extension of the astrological metaphor from medicine to the wider context of the theological speculation indicates more a widening of his field of interest than a break in his career. The latest scholarship shows that not only was his theological output greater after the incident in Paris, but his medical output increased as well (McVaugh, *Opera Medica* xv). If, as Raoul Manselli maintains, the *Expositio*, clearly one of Arnald's most important theological works, is also an early work, Arnald's medical and theological development may have held a parallel course for much longer than has hitherto been suspected (Manselli, *Spirituali* 59 n. 1).

I began this paper with a lament that textual circumstances and historical studies had produced two, if not contradictory, at least conflicting images of Arnald of Vilanova. My suggestion, now that the evidence is in, is a different kind of study, one that allows some reconciliation of the opposites—a specifically literary study of Arnald's works aimed at determining the one impulse that manifests in these apparently exclusive activities.

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The complexity of Arnald of Vilanova's thought, the coexistence within it of empiricism and mysticism, has been obscured both by traditional scholarly procedures and by textual difficulties. This makes the task of the critic more demanding, but certainly not impossible. Only by understanding the reciprocal influences of medicine and theology on Arnald's thought will we grasp both the personality of Arnald of Vilanova and the significance of his vision of the world.

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Notes

1. Heinrich Finke, Aus den Tagen Bonifaz VIII (Munster: Druck und Verlag der Aschendorffschen Buchhandlung, 1902); P. Diepgen, Arnold von Vilanova als Politiker und Laientheologe (Berlin-Leipzig: Abhandlungen zur mittleren und neuren Geschichte, 1909). Important works include M. Mendenez Pelayo, Historia de los Heterodoxos Espanoles (Madrid: 2nd ed., 1918), 179-225; Jose M. Pou y Marti, Visionarios, Beguinos, y Fratricelos in Archivo Ibero-Americano 6 (1919): 143-221. See also the various publications of J. Carreras Artau and M. Battlori, editors of Arnald of Vilanova's Obres Catalanes, 2 vols. (Barcelona: Editorial Barcino, 1947). Important bibliographic information may be found in R. Verrier, Estudes sur Arnaud de Vilenueve. 2 vols. (Leiden, 1947), which offers a glimpse of the culture of Arnald's time. The articles of Raoul Manselli have added a new dimension to Arnaldian studies. See especially "Un Compagno di Strada: Arnaldo da Vilanova" in Spirituali e Beghini in Provenza, Instituto Storico Italiano per il Medio Evo (Rome, 1959), and his La Religioso di Arnaldo da Vilanova in Bulletino dell'Instituto Storico Italiano per il Medio Evo ed Archivo Muratoriano, 63 (1951): 1-100. And finally, Lynn Thorndike, A History of Magic and Experimental page 42

Science, III (New York, 1934): 52-85; George Sarton, Introduction to the History of Science (London, 1931), II: 2, 892-900; Michael McVaugh, "Arnald of Vilanova and Bradwardine's Law," Isis, 58 (1967).

- **2.** Franz Pelster, "Die Questio Heinrichs von Harclay ueber die Zweite Ankunft Christi und Die Erwartung des Baldigen Weltendes zu Anfang des XIV Jahrhunderts," in *Archivo Italiano per la Storia della Pieta*, 1 (1951): 25-82. Pelster's account of Arnald's arrest is to be found on pp. 32-37.
- **3.** Michael McVaugh, "Arnald of Vilanova," in *Dictionary of Scientific Biography*, ed. in chief Charles Coulston Gillespie (New York: Charles Scribner's Sons, 1976), 291.
- 4. Michael McVaugh, Arnaldia di Vilanova Opera Omnia (Granada: Seminarium Historiae Medicae Granatensis, 1985).
- 5. Joachim Carreras y Artau, "Proleg," Les Obres Mediques D'Arnau de Vilanova (Barcelona: Editorial Barcino, 1947), 11.
- **6.** See note 1 for references to works by Thorndike, Sarton, and McVaugh. The most recent major work on Arnald's medical writings is McVaugh's edition *Arnaldia de Vilanova Opera Medica Omnia*.
- 7. The number and extent of recent bibliographies on these subjects are some indication of current interest in heresy and apocalyptic thought in the Middle Ages. See Bernard McGinn, "Awaiting an End," *Medievalia et Humanistica* (1983); Carl T. Berkhout and Jeffery B. Russell, *Medieval Heresies: A Bibliography 1960-1979* (Toronto: 1979); or Hillel Schwartz, "The End of the Beginning: Millennian Studies, 1969-1975," *Religious Studies Review*, 2 (1976): 1-15.
- **8.** Carreras y Artau, *Obres Catalanes*, vol. I, includes a bibliography of Arnald's theological works in Catalan and a commentary on the tentative nature of their dating.
- **9.** Harold Lee, "Scrutamini Scripturas: Joachimist Themes and Figurae in the Early Religious Writing of Arnald of Viianova," in *Journal of the Warburg and Courtauld Institutes*, 37 (1974): 33-56. Manselli,

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Spirituali e Beghini, 59.

- **10.** Pou y Marti, *Visionarios*, 171-73, 200-203. Gordon Leff, *Heresy in the Later Middle Ages* 2 vols. (Manchester: Manchester University Press, 1967), 1: 178 ff. compares Arnald's writing style with that of Olivi.
- 11. Joaquin Carreras y Artau, "Arnaldo de Vilanova, Apologista Antijudaico," in Sefarad, 7 (1947): 49-61.
- 12. Carreras y Artau cites Baer's Historia de los judios in la Espana christiana, 1: 345, n. 70, in "... Apologista Antijudaico," 61.
- 13. Gershom Scholem, Major Trends in Mysticism (London: 1955), 133 (qtd. in Lee 55).
- 14. Joaquin Carreras y Artau, "La 'Allocutio Super Tetragrammaton' de Arnaldo de Vilanova," Sefarad, 9 (1949): 75-105.
- 15. Arnald of Vilanova, Expositio Super Apocalypsi, ed. Joaquin Carreras y Artau (Barcelona: Institut D'Estudis Catalans, 1971), I: 11, 595-605.
- **16.** As Leff rightly points out, Joachimist belief in a thousand-year reign of peace on earth before the Last Judgement is not repeated in Arnald's theory. For him the seventh age leads directly to the Last Judgement. See Leff, *Heresy*, 179, n. 1. This point is also studied by E. Benz, "Die Geschichtetheologie der Franziskanerspiritualen des 13 und 14 Jahrhunderts," *Zeitschrift fur Kirchengeschichte*, LII (1932): 108-10.
- 17. Bernard McGinn, "Angel Pope and Papal Antichrist" in Church History, 47 (1978): 165.
- **18.** A point made by Leff in *Heresy*, 178.
- **19.** Arnald's reforming impulse is described in Raoul Manselli, "Arnald da Vilanova e i Papi di suo Tempo tra Religione e Politica," in *Studi Romani* VII (1959): 146-61.
- **20.** Bernard McGinn explores the notion of these opposing forces in "Angel Pope," pp. 155-73.
- **21.** Carreras y Artau, Praefatio xvii, n.3.
- 22. See Pelster on this point.