

Arnau de Vilanova (*ca.* 1238-1311) deserves a special place among the most controversial individuals all along the Middle Age. A worthy extent of his writings is of course related to different medical matters. Yet, beyond the requirements of the chosen content of every concrete work, other authors reflect some quite noticeable interest in medical subjects, as it is shown, for instance, by such an amazing lyrical poet as Ausiàs March (*ca.* 1397-1459). A slightly different case is that of the satirical author Jaume Roig, a physician himself (*ca.* 1400-1478). Both represent two opposite manners and styles, having however a common trend towards the medical language. The purpose of this paper concentrates on the Greek loanwords attested by Vilanova, March and Roig, as a way of checking the influence of both oral and written medical tradition on the Western authors.

1. *Introductory.*

Needless to point up that in the Late Middle Ages there was an intense translating activity from the Greek language towards either Latin or Arabic or Hebrew or a Romanic language. We can take as an example the so-called *Llibre dels simples*, composed in the XIIth century by the Denian physician Abul-l-Salt Umair ibn Abd-al-Aziz (1068-1134, approximately). This treatise was later on translated by Arnau de Vilanova into two different versions, into Latin as *De simplicibus*, and into Catalan as *Llibre dels medicaments simples*. Its chapters first to five present the theory of humors by means of a brief and clear report. So, the didactical aim of this text shows that Hippocratic medicine was being incorporated to the customary medical practice, first of all by the Arabic –and Hebrew- physicians and surgeons, later by the Christian professionals. This situation occurs some three centuries later after the emergence of the Salerno School, where towards the mid IXth cent. was already at work the Latin version of some among the most important Hippocratic treatises. Consequently, the Greek-Italian translation started towards the mid XIIth century ¹.

Actually, the amount of medical terms in the ancient Catalan texts has been recognised, even as something unexpected, by the most authorized scholars ². Nonetheless, we would like to underline that the influence of the Greek medical tradition on the Valencian literature was not only related to literary translation, since Catalan, Arabic and Hebrew individuals were of course in contact; moreover, most of the physicians were Muslims or Jews. Anyway, our research is severely limited by the lack of a complete, not to say exhaustive,

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¹ Cf. G. Baader, "Die Tradition des Corpus Hippocraticum im europäischen Mittelalter", in G. Baader & R. Winau (edd.), *Die Hippokratische Epidemien. Theorie-Praxis-Tradition. Verhandlungen des V Colloque International Hippocratique*, Stuttgart 1989, 409-419.

² Cf. F. Moll, "Sorpreses i problemes d'un filòleg davant la medicina medieval", *Textos i estudis medievals*, Barcelona 1982, 319-334; A. Carré, "Nova terminologia mèdica medieval", *Miscel·lània Giuseppe Tavani I. Estudis de llengua i literatura catalanes XLII*, Barcelona 2001, 9-17.

information about the Arabic & Hebrew medical tradition in the Valencian Country ³. We should need, for instance, a more trustful chronology, as well as general lexicographical databases and other more specialised, such as those related to technical words and individuals & proper names in general. But the first and biggest problem lies on the lack of any type of complete edition of these Arabic and Hebrew sources, not to say the Catalan texts. Therefore, this is an unuseful way to understand and to evaluate the reception of the Greek medical tradition within the Catalan literary and scientific authors.

There is no doubt that this medical literature was one of the best ways to incorporate Hellenic terms into the Catalan language. Hippocratic *Aphorisms* were, for instance, a capital text for the instruction of future physicians, as well as a useful *uademecum* for professionals. This can explain the origin of one of the more recently attested Hellenisms in Catalan, *pampallugues* < gr. *pompholyges*, actually appearing in *Aphorisms* VII 34. Yet there is a *décalage* between our first testimonies of the word ⁴, and the first Catalan translations of this treatise ⁵. If so, an alternative is open: either there were former manuscripts, which seems to be the most reasonable answer, or the word arrived by means of an oral tradition. To sum up, there is case enough for checking some chosen texts as a way to understand the extent of the reception of the ancient medicine.

2. Arnau de Vilanova.

The physician Arnau de Vilanova was probably born in the Vilanova quarter, close to València, towards 1238-1240, shortly after the Christian conquest; he died in 1311 ⁶. He achieved being one of the most relevant personalities of his age, as shown by the title of *major representative of the European medicine from*

³ See on this matter L. García Ballester, *La medicina a la València medieval. Medicina i societat en un país medieval mediterrani*, València 1988; R. Cardoner i Planas, *Història de la medicina a la Corona d'Aragó (1162-1479)*, Barcelona 1973.

⁴ J. Coromines, *Diccionari Etimològic i Complementari de la Llengua Catalana VI*, Barcelona 1986, s.u. The first quotation registered is dated, according with Coromines, at 1805.

⁵ There are two known manuscripts, at the Bibliothèque Municipale of Bordeaux, cod. 568 (beginnings of the XVth. cent.), and at the Biblioteca Capitular at Toledo Cathedral, cod. 96-31 (last XIVth. cent.). The French manuscript includes, besides the translation, a commentary and the seven books of the Hippocratic *Aphorisms*, the Spanish only brings the translation of the first book and a fragment of the second. It is somewhat unexpected that neither Barcelona nor València keep any manuscript containing Vilanova's texts.

See on this matter J. Mateu Ibars, "Incunables de 'Ars Medica' en la Biblioteca de la Universidad de Barcelona", *Gimbernat 19. VIIè Congrès d'Història de la Medicina Catalana*, 1993, 197-216, and A.M. Gudayol, "La col·lecció història de la secció de Medicina de la Biblioteca de la Universitat de Barcelona", *Gimbernat 20*, 1993, 115-123.

⁶ Maybe because of the controversial bias of his reception, it is hitherto unknown the exact place of his birth: there is small scope for the Provençan case, suggested by R. Verrier, *Études sur Arnaud de Villeneuve, v. 1240-1311 I*, Leiden 1947, p. 24. The Aragonese hypothesis has been proposed by J.F. Benton, "The birthplace of Arnau de Vilanova: a case for Villanueva de Jiloca near to Daroca", *Viator 13*, 1982, 245-258. On the Catalan or Valencian origin, see R. Chabàs, "¿Arnau de Vilanova, valenciano?", *Revista Valenciana de Ciències Mèdicas 3*, 1901, 2-9; Martí de Barcelona, O.M., "Nous documents per a la biografia d'Arnau de Vilanova", *Analecta Sacra Tarraconensia 11*, 1935, 85-127; i J. de Carreras & M. Batllori, "La patria y familia de Arnau de Vilanova", *Analecta Sacra Tarraconensia 20*, 1947, 5-71. M. Batllori, *Obra completa. Arnau de Vilanova i l'arnaldisme*, València 1994, pp. 23-29, concludes that Vilanova was Catalan, as the language he used is exempt of any Provençal dialectalism. Among the most ancient testimonies, that of Francesc d'Eiximenis, ed. M. Olivari, *Faules e contes*, Barcelona 1925, pp. 19-20, establishes quite clearly his Valencian origin.

*Galen until Paracelsus*⁷. Vilanova had beyond any doubt an accurate formation in both languages, Arabic and Hebrew. His biographers remark the influence he received, at the very beginning, from one of the most noteworthy members of the Dominican order, the father Ramon Martí, an expert in these languages learning them at the *schola linguarum* sited at the Santa Caterina's Abbey, in Barcelona⁸. Moreover, it goes without saying that contemporary València had to remain at a great extent an Arabic-speaking town, especially outside its walls. Yet this specific acquaintance with the Arabic language was not a target in itself, as it was for Ramon Llull and Anselm Turmeda, for instance, but just a way to obtain the requested scientific information, which in XIIIth cent. arrived to the Valencian intellectuals mostly from Arabic & Hebrew sources⁹. As quoted above on the *Llibre dels simples*, the Arabic sources were the most available in order to read the ancient authors. Afterwards, at Montpellier and towards 1260, Vilanova had to pay strong attention to the Toledo and Salerno schools, which were the most advanced in contemporary Western Europe. In fact, Vilanova devoted also his efforts to translate from their Arabic sources some works by Avicenna and Galen, in a parallel way to that of Burgundio di Pisa (1110-1193 *ca.*), Bartolomeo di Messina (XIIIth. cent.), Wilhelm van Moerbeke (1215-1286 *ca.*), Pietro d'Abano (1250-1318 *ca.*) and Niccolò da Reggio (1280 *ca.*-1350 *ca.*)¹⁰. It has been emphasized, even recently, just the Arabic & Hebrew side of Vilanova¹¹, which is only a part of the truth.

⁷ J. De Carreras i Artau, introductory note to the edition by M. Batllori, *Arnau de Vilanova. Obres Catalanes II. Escrits mèdics*, Barcelona 1947 (= 1982), pp. 9-10. J.A. Paniagua, *El maestro Arnau de Vilanova, médico*, València 1962 (= *Studia Arnaldiana. Trabajos en torno a la obra médica de Arnau de Vilanova*, , c. 1240-1311, Barcelona 1994, 49-143), p. 93, defines Vilanova as the most noteworthy physician in medieval Western Europe. A comprehensive view of Vilanova's social and cultural frame has been presented by E. Balaguer Perigüell, "Arnau de Vilanova. La medicina, la ciencia y la técnica en tiempos de Jaime II", *Anales de la Universidad de Alicante. Historia medieval* 11, Alacant 1998, 13-27.

⁸ See on this author A. Berthier, "Un maître orientaliste du XIII^e siècle: Raymond Martin O.P.", *Archivum Fratrum Predicatorum* 6, 1936, 267-311. On the Dominican school, see A. Berthier, "Les écoles de langues orientales fondées au XIII^e siècle par les Dominicains en Espagne et en Afrique", *Revue Africaine* 73, 1932, 84-103; J.M. Coll, "Escuelas de lenguas orientales en los siglos XIII y XIV (período Raymundiano)", *Analecta Sacra Tarraconensia* 17, 1944, 115-138, 18, 1945, 59-89, i 19, 1946, 217-240; and A. Cortabarría, "Originalidad y significación de los 'studia linguarum' de los dominicos españoles en los siglos XIII y XIV", *Homenaje a M. Alonso. Pensamiento* 25, 1969, 71-92. It is interesting to remark the political side of Martí, as he inspired the Catalan Crusade against North Africa. He tried to Christianize the Tunisian Soldan al-Mustansir in 1268-1269.

⁹ See A.M. Alfonso-Goldfarb & M.A. Pileggi Perassollo, "O universo cultural e científico valenciano durante os seculos XIII e XIV e a contextualização da obra de Arnaldo de Vilanova", *Historia, Ciências, Saúde-Manguinhos* II, (November 1995-February 1996), 32-43.

¹⁰ All of them, Burgundio di Pisa, diplomat travelling very often to Greece, Bartolomeo di Messina, professional translator at the court of the king Manfred of Sicily, Wilhelm van Moerbeke, bishop of Corynth, Pietro d'Abano, formerly student at Constantinople and professor at the Padua University since 1307, and Niccolò da Reggio, professional translator at the court of Naples, were of course able to translate directly from the Greek sources. As for Vilanova's translations, see L. Cifuentes, "Vernacularization as an Intellectual and Social Bridge. The Catalan Translations of Teodorico's *Chirurgia* and of Arnau de Vilanova's *Regimen sanitatis*", *Early Science and Medicine* 4, 1999, 127-148.

¹¹ See, for example, J. Millàs i Vallicrosa, "Nota bibliográfica de las relaciones entre Arnau de Vilanova y la cultura judaica", *Sefarad* 16, 1956, 149-153; M. Batllori, "Raimondo Lullo e Arnaldo da Vilanova ed i loro rapporti con la filosofia e con le scienze orientali del secolo XIII", in AA:VV, *Oriente e Occidente nel Medioevo: filosofia e scienza*, Roma 1971, 145-158; L. García Ballester, "Las influencias de la medicina islámica en la obra médica de Arnau de Vilanova", *Actes de les I Jornades de Filosofia Catalana. Estudi General* 9, 1989, 79-95; M. de Epalza, "Corrents islàmics aparents i amagats de la cultura catalana medieval", *Actes de les I Jornades de Filosofia Catalana. Estudi General* 9, 1989, 107-116; D. Urvoy, "Traces arabes dans la pensée européenne non scholastique", *Bulletin de Littérature Ecclésiastique* 101, 2000, 137-148. P. Santonja, "Arnau de Vilanova (Arnaud de Villeneuve) et la pensée islamique", *Annales du Midi* 103, 1991, 421-439; *La influencia de la cultura judía en la obra de Arnau de Vilanova (¿1238-1311?): la espiritualidad de su tiempo*, València 2001;

According to the scholarly view, Arnau de Vilanova had just a low knowledge of the Greek language¹². Yet, if we take into consideration not only the authors whose work are reflected in Vilanova's own texts, that is to say, Aristoteles, Hippocrates, Ptolemaeus and Galen, among many others, but also the methodological and epistemological bias of his medical treatises, it is clear that the Greek scientific literature was completely significant regarding his formation, his evolution and his production¹³. A first step is again related to the Dominican studies, which were firmly based on the Aristotelian theories. Further, it is sure that Vilanova had many occasions to meet Greek intellectuals and scholars –physicians, thinkers, alchemists, translators, diplomatic officials, even fortune-tellers- coming either from Southern Italy and Sicily, for both of them continued being Greek-speaking areas, or from the Byzantine empire¹⁴. Batllori had no doubt in pointing up this debt Vilanova had towards the Byzantine culture¹⁵. First of all, Vilanova's stages in Sicily, even if they are dated in the last period of his life, were organised by the king Frederic III; our physician was a royal guest and consequently benefited from a rich intellectual ambiance, constantly refreshed by the Byzantine cultural novelties. Second, the discovery of Greek translations of Vilanova's works prove that his prestige spread overseas until reaching the Byzantine culture¹⁶. This happened during his life, as proved by a fact: in 1308, two monks of the Saint Athanasius' Abbey, at the Mount Athos, in Greece, went to meet him at Marseille for asking his help against the attacks and sacks of the Catalan Army. It is reasonable to suggest that they brought with them some present, maybe not only the Evangiles and the Psalms found at Vilanova's own library.

and "La influencia del pensamiento judío en la obra de Arnau de Vilanova, médico y escritor espiritual", *Helmántica* 157, 2001, 101-129. In fact, Vilanova possibly was a Hebrew, as he never gave any good indication about his origins; on the contrary, he recognised that his family was *ex gleba ignobili et obscura*. His representative in València, Ramon Conesa, was probably member of a well-known family of Hebrew origin. Many treatises were soon translated into Hebrew, partly because of professional reasons, as many physicians were Jew, but the reasons that he was recognised as such has not to be excluded.

¹² Vilanova himself made a clear assessment on this point, but the syntax and the context are not conclusive: (...) *dicimus quia non scimus cum sint vocabula greca (De mala complexionem 58 a)*.

¹³ J. Mensa, *Arnau de Vilanova*, Barcelona 1997, pp. 52-53, even compares Vilanova with the Renaissance scholars because of his aim of restoring by philological ways the extant Galenic texts.

¹⁴ M. Batllori, "Alguns moments d'expansió de la història i de la cultura valencianes", *A través de la història i la cultura*, Barcelona 1979, 109-127, pp. 113-114: *Paral·lelament, el seu ideari espiritual arribava al món bizantí, renovat per l'hescasme, a través d'incorrectes traduccions gregues elaborades en algun monestir de la Itàlia meridional, on ell mateix havia vist coexistir grecs i llatins* (= Simultaneously, his spiritual ideas arrived to the Byzantine milieu, already renewed by the Hescasmus, by means of inaccurate Greek translations made at some monastery in Southern Italy, where he noticed by himself that Greek and Latin coexisted with each other).

¹⁵ M. Batllori, "Ramon Llull i Arnau de Vilanova en relació amb la filosofia i amb les ciències orientals del segle XIII", *A través de la història i la cultura*, 15-35 (= "Raimondo Lullo e Arnaldo da Vilanova ed i loro rapporti con la filosofia e con le scienze orientali del secolo XIII", in *Oriente e Occidente nel Medioevo: Filosofia e Scienze*, Roma 1971, 145-157), p. 30: *Pel que fa a la seva oniromància, a més de les fonts comunes als metges occidentals que han escrit tractats sobre els somnis, caldria remarcar una influència espiritualística bizantina, molt difosa des del temps de Gioacchino da Fiore entre els espirituals italians i provençals dels segles XIII i XIV* (= Regarding his oniromancy, besides the most common sources available to the Western physicians writing on the matter, it should be remarked the Byzantine spiritual influence, largely expanded after Gioacchino da Fiore among XIIIth and XIVth Italian and Provençal authors).

¹⁶ See J. de Carreras, "Una versió grega de nou escrits d'Arnau de Vilanova", *Analecta Sacra Tarraconensia* 8, 1932, 127-134; M. Batllori, "Els textos espirituals d'Arnau de Vilanova en llengua grega", *Quaderni ibero-americanis* 14, 1953, 358-361. Both papers refer to a manuscript found by Carreras at the Sant

Arnau de Vilanova profited from a continuous and fond contact with the Greek medicine, as is it proved by his works. For example, his treatise *De seu carniū* was inspired by the Hippocratic texts *On regime*, *Nutrimēt*, and *On healthy diet*. Another work, that entitled *De uigore et iectigatione et tremore et spasmo*, gives the corresponding Galen's text –*Perì trómou kaí pálmou kaí spásmou kaí rígous*– in translation from the Arabic version made in Barcelona in 1282, according to the Valencian manuscript. Later on, in 1300, he turned to another Galenic treatise, *De locis affectis* –known in the Middle Ages as *De interioribus*–, as former translations were in his opinion mistaken in several aspects, and completed a new version of its first two volumes¹⁷. A special place must be accorded to his brief comments to some Hippocratic *Aphorisms*, as a sort of handout-notes useful for didactic purposes in addressing to medicine students¹⁸, since Vilanova became professor at the Montpellier University between the years 1289-1291, and 1299-1301. The strenght he gave to the Montpellier medical studies has been stressed by the scholars¹⁹. Other comments focused the Galenic treatise *De mala complexione diuersa*. Moreover, he epitomized Hippocrates' *Prognostic* and *Regime of acute Diseases*. So, only an exhaustive research could modify the profile we can take from this activity: that the whole of Vilanova's medical production was created within the Greek tradition, albeit it seems that he only could read it in its Arabic version²⁰. His respect for the Greek legacy has been useful even as a contrasting mark to check the authorship of some texts²¹.

To the already quoted names of Hippocrates and Galen we must add at least two other names: the poet Nicander of Colophon, author of the IIIth. cent. B.C., and the interpreter of dreams Artemidorus of Ephesus, living in the II cent. A.D. The first one composed a long didactic poem entitled *Theriaká*, i.e., *Antidotes*, which was imitated by literary authors as Virgil, Ovid, Oppian, Quintus of Smyrna and Nonnos, besides many others, and simultaneously entered into the scientific literature²². Regarding this matter, it must be reminded that Arnau de Vilanova wrote a *Tractatus de dosibus theriacalibus* which of course is inspired by the Greek tradition of Nicander. As for Artemidorus, it goes without saying that he was also the main Greek authority on the matter of such a specific science as that of interpreting dreams, so that his influence can be detected even in modern authors as Freud himself. Again, also Arnau de Vilanova seems to have been the author of the treatise entitled

Petersburg's Publishnaja Bibliotheka, and recently published by J. Nadal, *Arnaldi de Villanova. Tractatus octo in graecum sermonem uersi (Petropolitanus graecus 113)*, Barcelona 2002.

¹⁷ M. McVaugh, "The Authorship of the Galenic Compendium *De interioribus 'Quoniam diuersitas'*", *Dynamis 1*, 1981, 225-229. On Vilanovan translations, see J.A. Paniagua, "Las traducciones de textos médicos hechas del árabe al latín por el Maestro Arnau de Vilanova", in *Actas del XXVIII Congreso Internacional de Historia de la Medicina*, Barcelona 1980, 321-326.

¹⁸ Actually, the influence of this Hippocratic work extends until the whole of Vilanova's production. At the opening section of the *Regimen sanitatis ad inclytum regem Aragonum directum et ordinatum*, ed. Batllori, p. 100, we can read the following introductory advice: *E per ço com la art de medicina és fort longua, e.ls savis metges entichs ho agen longuament escrit* etc. (= For the art of medicine is quite long, and the wise ancient physicians have extensively argued etc.).

¹⁹ See on this matter L. García Ballester, "Arnau de Vilanova (c. 1240-1311) y la reforma de los estudios médicos en Montpellier (1309): el Hipócrates latino y la introducción del nuevo Galeno", *Dynamis 2*, 1982, 97-158.

²⁰ J. Ziegler, *Medicine and Religion c. 1300: The Case of Arnau de Vilanova*, New York 1998 (see also Th.F. Gilck, *Speculum 76*, 2001, 548-549).

²¹ See J.A. Paniagua, "En torno a la problemática del 'corpus' científico arnaldiano", in J. Perarnau (ed.), *Actes de la I Trobada internacional d'estudis sobre Arnau de Vilanova II*, Barcelona 1995, pp. 14-15.

²² Galen himself, XIV 7, quotes other authors of *Antidotes*, all of them depending in different ways on the treatise of Nicander.

Prognosticationes uisionum quae fiunt in somniis ²³. The first part of the work deals with the science of interpreting dreams and with the seven categories of oniric visions, according with the value they have for the interpreters.

We also know that among the works used by Vilanova all along his vast activity as medical author there is at least one which belongs to the Byzantine contemporary school, the *Experimenta* of Nicolaos of Constantinoble. This treatise was widely known in Vilanova's age. Yet Vilanova's sufficient knowledge of the Greek language is something to be demonstrated. A Greek work has been attributed to Vilanova, but because of its content it can hardly be assigned to him ²⁴. So, we must look after different data. For instance, two letters at least have been transmitted in Greek version ²⁵. Furthermore, the *scriptorium* he had in Sicily probably aimed at expanding his work also in Eastern Europe, that is to say, in the area where Greek was the most significant cultural language. It is not without meaning that his personal library had some Greek books ²⁶.

Among the works of such an extensive production as Vilanova's, a first glimpse points to a result that only can be evaluated as a logical one. We will quote some examples from the treatise entitled *Regimen sanitatis ad inclytum regem Aragonum directum et ordinatum*, which was composed in Barcelona or Montpellier towards 1305-1306 and addressed to the king Jaume II. Actually, the Catalan text is just a literal translation made by a surgeon, Berenguer Sarriera ²⁷. Our choice is supported by the large echo achieved by the work, perhaps the most copied and printed Vilanova's treatise ²⁸. The first quotation is the following:

*Les fruytes qui an natura de compembre són diverses, cor algunes compremem per lur sola grosea e per greutat de lur substància, axí com avelanes cruës; alcunes compremen pel poder que tenen de constrènyer. I d'aquestes que comprimeixen à-n'i alcunes que poc costrenyen, e són apelades **stíptiques**, ço és a saber, que an natura de compembre e de estrènyer poc, axí com sarmenys e peres; altres n'i a qui an natura de costrèyer*

²³ All the extant editions recognise Arnau de Vilanova as the author of the work. Nevertheless, as his name does not appear in any manuscript, L. Thorndike, *The History of Magic and experimental Science II*, New York 1958, pp. 300-302, rejects Vilanova's authorship. As J. Carreras reminds, in his prologue in M. Batllori's edition, p. 42, at least one of the royal dreams dealt with in the work is directly connected with the personal experience Vilanova had as physician of the king Pere el Gran.

²⁴ G. Sarton, *Introduction to the History of Science II*, Londres 1921, pp. 892-900. The text, contained in a Vatican codex, presents Arnau de Vilanova as the author of the work. This should be false, as a result of the image of Vilanova as alchemist.

²⁵ See F. Tocco, "Due opuscoli inediti di Arnaldo de Villanova", *Archivio Storico Italiano* 1886, 439-460 (= *Studi Francescani*, Naples 1909, 223 ss.), about a first letter remaining in the Biblioteca Nazionale, at Florence; J. Carreras, "Les obres teològiques d'Arnau de Vilanova", *Homenatge a A. Rubió i Lluch II*, Barcelona 1936, 217-231, n. 36, about a second letter, entitled *De la humilitat i paciència de Jesucrist*, albeit only a fragment of its *incipit* is remained.

²⁶ See R. Chabàs, "Inventario de los libros, ropas y demás efectos de Arnaldo de Villanueva", *Revista de Archivos, Bibliotecas y Museos* 9, 1903, 189-203; J. Carreras, "La llibreria d'Arnau de Vilanova", *Analecta Sacra Tarraconensia* 11, 1935, 63-84.

²⁷ Other translations were made personally by Vilanova, cf. J.A. Paniagua, *El maestro Arnau de Vilanova, médico*, p. 20 (= *Studia Arnaldiana: trabajos en torno a la obra médica de Arnau de Vilanova, c. 1240-1311*, Barcelona 1994, 49-143).

²⁸ As a good introduction to this work, see J.A. Paniagua, "El 'Regimen sanitatis ad regem Aragonum' y otros presuntos 'regimina' arnaldianos", in J.A. Paniagua (ed.), *El maravilloso regimiento y el orden de vivir*, Zaragoza 1980, 31-77 (= *Studia Arnaldiana*, 335-383).

fortment, axí com codonys e serves, e aquestes són apelades pòntiques, ço és a saber, qui an natura de comprendre e de molt fortment a restrèyer ²⁹.

The adjective *stíptic*, i.e., *astringent*, transcribes the Greek term *styptikós*. The second adjective deserving our comment, *pòntiques*, must be related to the Greek term *pontikós*. A Latin, artificial coinage must be recognised, however, when using the cognate substantive *ponticitat* ³⁰. A second passage says as follows:

A second text makes clear again which sources were actually used by Vilanova:

La pólvora de què hom deu fer salça: E, per tal que pusca hom tota error esquivar, porà hom portar la pólvora següén. Recipe: gingebre ben blanch, dracmes II; ciliandre preparat, dracma I; cardemoni benalbi ana, dracma miga; rasura de vori llavada, dracmes II; giroffle, saffran, ana, dracma I; de bona canela, dracmes VI ³¹.

It seems quite reasonable to avoid any comment to the use of the term *dracma* as a currency measure in order to give the exact proportions of the recipe, even if by itself could justify the interest of the quotation ³². The main interest of this text, regarding the Greek loanwords, deals with the preposition *aná*, in a distributive function that led Vilanova to use it as an adverb ³³. Last, the phytonime *ciliandre* transcribes the Byzantine term *kelíandron* (< *kolíandron* < *koríandron*), a word which the Greek language attests from the Mycenaean tablets on ³⁴.

It is far from our reach to bring a complete list of the Greek loanwords attested in Vilanova's works. Yet some of them are very interesting, such as *epidèmia* ³⁵, which according with Coromines was registered in the second half of the XIVth cent. ³⁶ Scanty evidence can be found on rare terms as *tayl*, *alatria*, and others.

The treatise entitled *Aforismes de la conservació de la memòria*, in spite of its brevity, deserves also our comment. Greek loanwords used there are very few in number but not without interest, namely *camomilla*, *saliandre*, *màstech*, *pliris* –just transliterated into Latin, in the phrase *pliris cum musto*–, and *anacardina*. They derive from *khamómilo*, again *kelíandron*, *mastíkha* or *mastíkhi*, *plíris*, and, finally, from a composite adjective **anakárdinos* parallel to the adverb *anácarda*.

²⁹ M. Batllori, *op. cit.*, pp. 150-151. The term *estíptic* reappears again, pp. 189 and 190.

³⁰ M. Batllori, *op. cit.*, p. 153.

³¹ M. Batllori, *op. cit.*, pp. 179-180.

³² A second instance can be found at M. Batllori, *op. cit.*, p. 187.

³³ There is in this case little help in the footnote added by M. Batllori, *op. cit.*, p. 180, n. 9.

³⁴ J.L. Melena, "Coriander in Knossos Tablets", *Minos* 15, 1974, 133-163. On its applications in Vilanova's medicine, see M. McVaugh, "Coriandri bulliti in aceto et exsiccati. An Arnaldian Touchstone?", *Arxiu de Textos Catalans Antics* 21, 2002, 659-663.

³⁵ M. Batllori, *op. cit.*, p. 144.

³⁶ J. Coromines, *DELC III, s.u. democràcia*, where he gives as references the dates of 1354 and 1387.

Another interesting instance occurs when quoting some fish terms in the treatise entitled *Regimen quartane: Item pisces paruos riui et de mare magno, ut trillias, id est rogetos, auratas, ranellos, camarotas elixatas et assatas* ³⁷. The attested by-forms *trellia*, *trillia* and *trollia* show how the authors tries to adapt the Greek term *trígli* –cf. Italian *triglia*-. This ichthyonym appears in fact in many later Latin texts, but maybe Vilanova was the first in taking it from the Galenic source ³⁸. As for *camarotas*, it comes beyond any doubt from the Greek form *kammarotós*, a variant of the most common term *kámmaros* meaning *rounded* ³⁹. In this last case, the origin seems to have been not at all literary: first of all, the term *kammarotós* is a medieval one, never attested as such in the old medical tradition, so that it must have arrived to Vilanova as a contemporary borrowing to the Byzantine Greek. Second, only Occitan and Catalan seem to attest forms such as *camarota*, *carambot* and *cambarot*, and *gambarotes*, respectively ⁴⁰,

Therefore, all the quoted examples attest the high attention payed by Vilanova to the Greek medical legacy and to the Byzantine culture as well. As referred to above, one of the major problems concerning Vilanova's work arises from the lack of information enough about the authorship and chronology of many among his writings. If we take into account that the *Regimen* was composed short after 1305, we could suggest that the reception of the Hippocratic & Galenic tradition, probably supplemented with Byzantine comments, increased in the last period of Vilanova's life. It is to be reminded that Catalan medical and scientific treatises in general become more frequent just now, from the beginning of the XIVth. cent. onwards ⁴¹.

3.- Greek loanwords in Ausiàs March.

The poet Ausiàs March (ca. 1397-1459) made constant references to the subject of love as an illness, which has been recognised as one of his favourite themes. Moreover, maybe his interest for this matter made him to look after the medical science. Some years ago we published a first approach to this subject ⁴², but we did not deal with the specific question of the Greek origin of some scientific, namely medical, terms. Actually, March uses an only medical word of recent Hellenic origin, *fleuma* < gr. *phlégma*, since all the others, such as *malenconia*, as attested by Llull ⁴³, and *còlera* ⁴⁴, already attested again in Llull and also in Vilanova, were from some time before already present in the Catalan literary language at least.

³⁷ *Regimen quartane I*, pp. 269-270.

³⁸ Gal. *De alimentis III* 26, *Galení Opera VI*, ed. C.G. Kuhn, p. 715.

³⁹ See G. Babiniotis, *Lexikó tis néas Ellinikís Glóssas*, Athens 1998, s.u. E. Kriaràs, *Lexikó tis Meseonikís Ellinikís Dimódous Grammatías VI*, Thessalonica 1980, p. 308, does not give any information.

⁴⁰ Cf. J. Coromines, *op. cit. IV*, Barcelona 1984, p. 324.

S. Giralt, *Decus Arnaldi. Estudis entorn dels estudis de medicina pràctica, l'ocultisme i la pervivència del corpus atribuït a Arnau de Vilanova*, doctoral thesis, Universitat Autònoma de Barcelona 2002, pp. 150-151.

⁴¹ Cf. L. Cifuentes, "Translatar ciència en romans catalanesch. La difusió de la medicina en català a la Baixa Edat Mitjana i el Renaixement", *Llengua i Literatura* 8, 1997, 7-42.

⁴² J. Redondo, "Hipòcrates líric a l'Humanisme català", *Faentia* 18, 1996, 87-101.

⁴³ G. Colón, "La forma malenconi de Llull i els fets occitans", in J. Massot i Muntaner & M.T. Ferrer i Mallol (edd.), *Estudis de llengua i literatura en honor de Joan Veny I*, PAM 1997, 27-37.

⁴⁴ A. March XCIV 19-20 *en un sol jorn regna malenconia, / n'aquell mateix, còlera, sang e fleuma*.

It is sure that March had a certain knowledge on Hippocrates' *Aphorisms*, probably at a very limited level. He likes, for instance, the famous first aphorism: *Tot quant per Déu és jus lo cel creat / ha molt perdut de son propi cabal: / saber se perd, experiment no val, / lo viure, curt que el mig és tost passat* (Everything that God created under heaven has lost most of its wealth: knowledge is lost, experience is not valid, life is so short that a half is early spent) ⁴⁵. As usual in March's poetry, the subject comes again, even much more clearly developed: *La vida és breu e l'art se mostra longa; / l'esperiment defall en tota cosa; / l'enteniment, en lo món no reposa; / al juhí d'hom la veritat s'allonga* (Life is short and the art long; experience almost deceives; knowledge does not lay down on earth; at everybody's judgment the truth always delays) ⁴⁶. Moreover, March alludes to the signals of any illness: *Sí co el malalt que no entén los senyals / de l'accident e pensa que està bé* ⁴⁷ etc. But later on he specifies that these signals were described by Hippocrates in his *Aphorisms*: *Així com és torbat algun bon metge / com del malalt lo mal no pot conèixer / e veu bon pols e sa vida descréixer / ab bon cervell, cor, ventrell, melsa, fetge; / dels vuit senyals mortals que Hipocràs posa / no en veu algú e sa vida s'abreuja* etc. (In the same way a good physician is troubled if he cannot find the illness of his patient, and he feels a correct pulse as well as his life's decrease in spite of having good brain, good heart, good belly, spleen and liver; among the eight mortal signs Hippocrates established he recognises no one, while patient's life shortens etc.) ⁴⁸ As shown by Bohigas, nowhere in the Hippocratic writings it is said that mortal signals are eight –in IV 48 (= VII 73) there are indexed up to seven-, but it is so told, for instance, by De Beauvais in his *Speculum naturale* ⁴⁹. So, March had some experience in reading medical literature, and he even paid attention enough to its most developed theories: *Dins lo cors d'om les humors se discorden; / de temps en temps llur poder se transmuda; / en un sol jorn regna malenconia, / n aquell mateix còlera, sanch e fleuma* (within the body humours disagree with each other; from time to time their power changes; during an only day melancholy rules, as well as anger, blood, and phlegm) ⁵⁰.

The attested references of the word *flegma* or *fleuma* in the Catalan language come back to Vilanova, as he was the first in dealing with the humoral theory. All in all, as for Greek loanwords, March seems quite far from Vilanova. This means that the arriving of these technical terms was limited to the scientific authors. Anyway, March provides an interesting testimony in order to evaluate the reception of the Hippocratic and Galenic tradition.

4.- Greek loanwords in Jaume Roig's satirical poem *L'espill*.

The lyrical poet Jaume Roig (ca. 1400-1478), whose literary work is apparently limited to an only poem, was first of all physician at one among the first public hospitals in Europe, the Hospital General de València. Besides this official position, he was also charged of the medical attention to the nuns of the Santa

⁴⁵ A. March XXVI 37-40.

⁴⁶ A. March CXIII 1-4.

⁴⁷ A. March CII 177-178. This subject compares again in CXV 71-72: *Com lo malalt que la causa ignora / de l'accident e no sap lo que el mata* etc.

⁴⁸ A. March CXIX 61-66.

⁴⁹ P. Bohigas, *Ausiàs March. Poesies V*, Barcelona 1990 (= 1959), pp. 96-97.

Trinitat Abbey. As literary author, Roig made an extraordinary gift to the Catalan literature in composing the *Espill*, i.e., *Mirror*, in the tradition of a common trend in the Late Middle Age, the blame against all past, present and future women, excepting the Virgin Mary.

In spite of other interesting aspects of this matchless work, we must pay attention to the Greek loanwords attested, especially for the following two reasons: first, the high amount of these terms within a literary text, as will be remarked later; second, some of these terms -namely *caliandre*, *estiomena*, *malempoli*, *taloneu*, *timiama* and *xatxexies*, six names and a verb-, very rare indeed, are exclusively attested in Roig's work. It is to be said on this matter that the *Diccionari Etimològic i Complementari de la Llengua Catalana* notices only the word *bol*, and even reports that its written records are very scanty indeed ⁵¹. A small attention has been paid to the words quoted above: only the *Diccionari Català-Valencià-Balear* gives the most common explanation on the term *estiomena*.

To begin with, the name *timiama* ⁵² appears both in Ancient and in Medieval Greek in the form *thymíama*. It is a quite common name meaning *perfume*, *essence*, *fragrance*, explained by Almela in his Roig's edition as a *preparació odorífica* ⁵³. However, it is noticeable that Roig uses a close adaptation of the Greek term, instead of its Latinized form **thymania* or **tomania*, actually attested in Catalan under the form *tomanyí* or *tomaní* ⁵⁴. It is to be taken into account that the so-called *Bíblia de Montserrat* translates the Greek term by its corresponding Romanic terms *perfum* and *encens*. On the contrary, the text of *Lo Cartoixà*, the translated Bible requested to the Scala Dei Abbey –not far from València- by the literary author Joan Roís de Corella coincides three times with Roig in using the term *timiama* ⁵⁵. Our opinion is that Corella, being himself fond of literary games and having as well a perfect knowledge of Roig's poem, used *timiama* because of the *Espill*, but even so he was not entirely convinced, so that he added a short explanatory note ⁵⁶.

⁵⁰ A. March XCIV 17-20.

⁵¹ J. Coromines, *DELC II*, Barcelona 1980-1991, pp. 57-59, cf. p. 57: *La documentació escrita del mot no abunda gens* (...). On p. 58 he remarks that this Greek loanword was first of all borrowed by Vulgar Latin, and that only the Catalan language kept it, among the Romanic languages.

⁵² J. Roig, *Espill*, ed. Almela p. 75. The accent should be proparoxytone according with the Greek term, but it is quite reasonable that in Catalan it were from the very beginning adapted with a paroxytone accent.

⁵³ J. Roig, *Espill*, ed. Almela p. 264.

⁵⁴ J. Coromines, *DECLC II*, *ibid*.

⁵⁵ This observation has been pointed up by our generous colleague and friend Josep Guia -whose studies on the Catalan medieval literature have completely renewed some major problems-, "De *Lo Cartoixà* a l'*Espill*. Concordances textuales i dades contextuales", *Afers* 41, 2002, 151-189, p. 189: *Podem concloure, sense gaire risc, que els fragments reportats més amunt –alguns a Lo Cartoixà i només un a l'Espill- contenen les úniques documentacions catalanes conegudes del terme 'timiama' i res no fa pensar que hagi estat mai d'ús general, en català, ni al segle XV ni al XX* (= We can conclude far from any risk that the fragments quoted above, some of them from *Lo Cartoixà*, one only from the *Espill*, attest all the Catalan known registers of the term 'timiama', so that nothing allows us to hypothesize that its use were never general, in Catalan, neither in the XVth century nor in the XXth century).

⁵⁶ This gloss appears related to the second use of the term, *Primer*, capítol 4; Corella tells about *thymíama*, in order to give a suitable explanation, *que era perfum que de encens y d'altres gomes odoríferes se componia*.

The verb *estiomenar-se* ⁵⁷ is explained in Almela's glossary as *nafra pútrida* ⁵⁸, i.e. *putrid sore*, as if it were a name; yet the text says: *la nafra fresca / si li'n fan bena / o s'estiomena / o s'hi fan cucs* (the fresh plague / when being bandaged / either *s'estiomena* / or gives place to the worms) ⁵⁹. A verbal form is so to be explained. As a starting point, Alcover & Moll certainly adhere to a widely accepted Greek etymology based on the middle forms of *esthío*, *to eat*, in the meaning *to gnaw* ⁶⁰. In our opinion, however, it seems better to think of the verb *stimiázo*, a Late Koine Greek verb that replaced the Classical causative form *stimmízo* ⁶¹. The meaning of this verb, always in the middle voice, is *to paint [sc. his or her eyes] in black colour* ⁶², therefore *to turn black in colour*, which is the exact meaning registered in our text. In both cases, no matter if we take either *esthío* or *stimiázo*, the difficulty arises when deriving *estiomenar-se* from a middle participle. In our proposal, we suggest a plural neuter form of the passive perfect participle **estimoména*, later on shorted by haplology, i.e., **estimoména > *estioména*.

The term *txatxetxies* ⁶³ does not appear in Almela's glossary, but its Greek origin is beyond any doubt. It is derived from the medical term *kakhexía*, derived itself from *kakôs ékhein*, so that we can translate it as *malaise, pain* ⁶⁴. The term *taloneu* ⁶⁵ is explained by Almela as *capsa de recaptacions* ⁶⁶, i.e., *taxes box*, and it must be derived from the name *teloneíon*, *tax collector's office* –in Modern Greek the term means *customs*-. Actually, the name is used sometimes in the New Testament Greek, but our opinion is that it could arrive to Roig's knowledge with the other loanwords. The name *bol* ⁶⁷, explained by Almela as *enginy de pesca* ⁶⁸, i.e., *fishing engine*, has its origin in the Greek term *vólos*, without any semantic variation from the ancient ages until now ⁶⁹. Finally, the term *caliandre* ⁷⁰ is not included in Almela's index ⁷¹. The first one is just a variant of the most common word *celiandre*, already attested, for instance, in Vilanova, as shown before, and derived from the Greek name *kelíandron*. Many other Greek loanwords, now strictly medical terms, do indeed appear in the

⁵⁷ J. Roig, *Espill*, ed. Almela p. 146.

⁵⁸ J. Roig, *Espill*, ed. Almela p. 258.

⁵⁹ J. Roig, *Espill*, ed. Almela p. 146.

⁶⁰ A.M. Alcover & F. Moll, *Diccionari Català-Valencià-Balear, IV*, Ciutat de Mallorca 1953, p. 556, s.u. The information is provided by Guido de Cauliac, *Inventari o col·lectori en la part quirúrgical de medicina*, Montpellier 1482.

⁶¹ In the Late Koine Greek the verbs belonging to the semantic field of *painting*, which in Classical Greek used to receive the causative suffix **-áino*, cf. *leukaíno*, *erythraíno*, and in Hellenistic Greek received the suffix **-óo*, cf. *leukóo*, *xanthóo*, shift to a different formation, now by means of the dental suffixes **-ázo* and **-ízo*, cf. Mod. Gr. *mavrízo*, *kitrinízo*, etc.

⁶² Gal. 6, 439.

⁶³ J. Roig, *Espill*, ed. Almela p. 176.

⁶⁴ Hp. *Aphor.* 3, 31.

⁶⁵ J. Roig, *Espill*, ed. Almela p. 181.

⁶⁶ J. Roig, *Espill*, ed. Almela p. 263.

⁶⁷ J. Roig, *Espill*, ed. Almela p. 181.

⁶⁸ J. Roig, *Espill*, ed. Almela p. 255.

⁶⁹ N.P. Andriotis, *op. cit.*, p. 55.

⁷⁰ J. Roig, *Espill*, ed. Almela p. 147.

⁷¹ J. Almiñana, *J. Roig. Spill*, vol III, València 1990, p. 1159, suggests that *malempoli* is just *deformació vulgar de monopoli*. This interpretation does not provide any help in order to understand the exact meaning of the word, which appears two times within the text, ed. Almela, pp. 124 and 221. In our opinion, it seems preferable to suggest that this term derives from a Greek phrase, viz. *méll' empóri*, i.e. *let us have our trade*, or something of the like.

Espill, namely *artrètic*, *asma*, *astrosies*, *càncer*, *distrasies*, *eclampsia*, *epilèpsia*, *ereptiri*, *espasme*, *eticada*, *ètics*, *etiquea*, *frenètic*, *frenetiquea*, *icterícia*, *litargia*, *mal paroxismal*, *melancolia*, *migranya*, *mirargia* and *miràrgic*, *paralitiquea*, *paroxisme*, *poplexia*, *puagres* and *tisiquea*. Excepting two of them, *mirargia* and *miràrgic*, their etymology is quite clear and does not deserve, therefore, any special comment.

All the non scarce Greek loanwords attested lead to a conclusion. As most of these terms do not occur in any other literary author, we could easily infer that they have been borrowed by Roig to professional texts he had to deal with because of his medical career ⁷². If so, this should be a quite parallel case to that of Ausiàs March, since XIVth. cent. València was at the very core of an intensive effort in receiving and transmitting the ancient medical texts ⁷³. It can be considered completely normal that Roig, a master in using all the available linguistic resources, found delightful and convenient as well to include in his poetical lexis such sonorous and attractive terms, some of them probably used in daily language by merchants, travellers and fishermen. Ausiàs March indeed aims to use a 'medical' lexis ⁷⁴, but in the case of Roig literary preferences coincide with his own profession ⁷⁵. Maybe the origin of these Greek loanwords in Roig's work was the acquaintance he had with some colleague either Greek-speaking or having in his personal library Greek medical texts, in their original version or translated. It was València the city chosen to establish open centres of medical education, that is to say, high schools comparable to the extant universities –Montpelier, Lleida and Perpignan- but created beyond the control of the Church. In such a situation, Hebrew and Muslim doctors could be appointed for learning there not only students of medicine, but also Christian professionals aiming at a better formation.

⁷² On the professional career managed by Roig, see the exhaustive report provided by R. Chabàs (ed.), *Spill o Llibre de les dones per mestre Jacme Roig*, Barcelona & Madrid 1905, pp. 419-441, and M. De Riquer, *Història de la literatura catalana. Part antiga. IV*, Barcelona 1985⁴, p. 73.

⁷³ J. Redondo, "Hipòcrates líric a l'Humanisme català", *Fauntia* 18, 1996, 89-103, pp. 98-99: (...) *A Itàlia i des de mitjan segle XII s'inicia la traducció d'Hipòcrates directament del grec, i hem de parlar d'una autèntica florida dels estudis hipocràtics a la cort siciliana, una centúria més tard, quan la versió dels textos grecs (...) coneix un ambient que podem qualificar de prehumanístic. És a aquesta tradició que hem d'adscriure, un segle més tard i ja entre nosaltres, Arnau de Vilanova –traductor ell mateix de nombrosos textos àrabs-, i a ella remunta també l'ensenyament de la medicina als Estudis Generals europeus, i per tant al de Lleida. En aquest punt, però, convé de fer esment al pes importantíssim que la civilització islàmica tingué en la transmissió d'aquesta literatura tècnica, com ho demostra l'origen àrab o hebreu de molts professionals de la medicina. De fet, traduccions àrabs de comentaris de Galè, en trobem com a mínim des del segle IX, i al ser torn d'aquestes traduccions es féu no pas més tard del segle XIII la versió hebrea. La València del segle XIV hagué de conèixer tota aquesta tradició, i no només per la formació universitària dels professionals cristians de la medicina, ans també per la intensa relació amb els metges àrabs i hebreus.* On the Catalan tradition in translating technical, especially medical, texts, see Ll. Cifuentes, *op. cit.* On Jaume Roig himself, it is to be taken into account that the executors of one of his patients, Guillem Gibert, gave to him in concept of payment for his services Avicenna's *Llibre Segon*, cf. M. De Riquer, *op. cit.*, *ibid.* and n. 2.

⁷⁴ The trend is related to the historical, social and literary context. It should not be explained just a result of the influence of a special conceptual image of love, as a sensation able to rouse even physical illness in the people who experience its power, R. Cantavella, "Terapèutiques de l'amor 'heraeos' a la literatura catalana medieval", *Actes del Novè Col·loqui Internacional de Llengua i Literatura Catalanes II*, Barcelona 1993, 191-207. Besides this literary aspect, in Late Medieval Europe medicine was accorded an increasing social prestige as much as rational and humanistic thought gained influence by means of its withdrawal of any religious commitment and aiming at philosophical resources. Moreover, the horrible epidemics suffered from mid XIVth cent. onwards necessarily had to provoke big attention regarding whatever medical subjects.

⁷⁵ See the right comment of A. Chabret, "Jaime Roig como médico en su libro 'Spill o Libro de les dones'", appendix to R. Chabàs, *op. cit.*, pp. 393-409, p. 393: (...) *El celeberrimo autor del Spill, sin intención de mentar la nobilísima profesión que ejerció seguramente largos años y con aptitudes y conocimientos nada vulgares, salpica todo el poema de voces médicas, con sinonimia unas veces griega y otras con la acepción vulgar o valenciana etc.*

Yet, the hypothesis just referred to seems to us partially unsatisfactory, for excepting the terms *timiama* and *bol* –in its first appearance- all of these words are attested in one section of the book, the so-called *Lliçó de Salamó, Shlomo's lesson*. Moreover, some of them are *hapax legomena*, as far as we know, in the whole production of the Catalan Medieval literature⁷⁶. Our opinion is that there is scope for suggesting an alternative explanation: that Roig could have had in front of him an original Greek text, which seems to us quite an unlikely case, or a Romanic version, probably Italian, full of Greek terms just transcribed.

5. Conclusion.

If only a part of the sample of alleged items is correct in our interpretation, the question of the way by means of which these loanwords arrived to the Catalan authors must be considered in a special manner: we should take into account not only a written transmission of any Greek term, either from ancient or from contemporary sources, but also an oral one involving the linguistic contact between the individuals of both countries.

⁷⁶ The study on the Greek loanwords attested in scientific, non-literary texts, has been recently focused, cf. G. Avenoza, "Anotacions lèxiques extretes de manuscrits catalans medievals. Món vegetal", *Verba* 21, 1994, 303-337; "Els 'Graus de les medicines' de l'Inventari o collectari de cirurgia' de Guy de Chauliac", *Miscel·lània Germà Colon. Estudis de llengua i literatura catalanes XXXIII*, Barcelona 1996, 17-36; and "Del calaix de l'apotecari i de l'especier", *Scripta philologica in memoriam Manuel Taboada Cid II*, A Corunha 1996, 781-804; A. Carré, *Els Aforismes d'Hipòcrates en la traducció catalana medieval*, Barcelona 2000 (see J. Perarnau, *Arxiu de Textos Catalans Antics* 21, 2002, 791-794); E. García Sánchez, "Traducciones catalanas de textos científicos andalusíes en la Corona de Aragón", *Sharq-al-Andalus 10-11. Homenaje a M. Jesús Rubiera Mata*, 1993-1994, 385-401; V. Minervini, "Una raccolta di 'Flos' di cosmetica catalana", *Messana. Rassegna di studi filologici, linguistici e storici* 8, 1991, 129-146; and "Proposta di contributo al lessico tecnico-cientifico catalano", *Attes du Xxe Congrès International de Linguistique et Philologie Romanes IV*, Tübingen 1993, 699-707; A. Trias, "El català en el llatí del 'Regimen salutatis ad regem aragonum' d'Arnau de Vilanova", *Miscel·lània Germà Colon I. Estudis de llengua i literatura catalanes XXXII*, Barcelona 1996, 33-52.