The book under discussion is a new edition of a book originally printed in Catalan in 15th century Spain. The book, *Astrology and Numerology in Medieval and Early Modern Catalonia*, by John S. Lucas, is a manual for numerologists and astrologers concerning how to “calculate” one’s name and draw his future (=prognostication) out of the name’s numerical representation. Most of the book, some 140 pages, is a reprint of the original edition in its original Catalan, together with a critical English translation and notes. Since I am not familiar with Catalan, I am permitted to say solely as a layperson that Lucas’ work appears to be on a high scholarly level. He has contributed not only to the study of incunabula, but also succeeds in providing a good “introduction” to the use of astrology and numerology in the high Middle Ages in Spain.

The book begins with a foreword from David J. Viera on the role of astrology in 13-14th centuries Aragon, and is supplemented with a bibliography on the subject. The first chapter is titled: ‘Prognostication at the Dawn of the Renaissance’. Chapter 2 describes the ‘Genres of Prognostic Material in the Catalan Language’. Chapter 3 evaluates ‘The Present Edition’ (known editions, content, divisions, sources, linguistic features, provenance and more); following which is the original book with English translation, the *Apparatus Criticus*, a facsimile reproduction, a Catalan – English glossary, references and the index. No doubt, the book was written by a highly qualified scholar.

While the role of astrology in Europe is more or less known to scholarship, the role of numerology is still uncharted territory. Numerology to us moderns seems more the interest of contemporary celebrities than a field of academic-level study. For this reason we are indebted to Lucas for providing such a book and thereby exposing numerology to the many historians that have doubtfully ever discussed the subject in scholarly circles. While modern scholars are interested in the lives and works of the scholars of former generations, and contemporary doctors may write on ancient medicine, there is no contemporary astrologer or numerologist who is interested in his professional predecessors – needless to say they cannot say much about their profession’s origins. This, however, is a book by a modern historian who knows that what matters is not necessarily limited to what is highly esteemed today, and therefore includes in his studies what was highly esteemed in the past. This is a book on intellectual history, regardless that some may raise doubts upon whether numerology ought truly be considered “intellectual”.

The book raises a variety of questions and provides a fresh view on the role of esoteric knowledge in Europe in general and Spain in particular. It is hoped that more scholars will find an interest in the book and review it from their own angle. However, hereafter only three themes will be discussed:

1. Astrological Magic
2. Jewish background (Jewish Astrologers; the difference between Gematria and Numerology; *Secreta secretum*)
3. A Hebrew source of Numerology: *The Book of Asaph the Physician*
1. Astrological Magic

A few years ago there appeared a book about astral magic practiced among Jews in Spain in the Middle Ages.¹ In reviewing that book, I claimed that there is no such concept as “astral magic” and that this term is either an oxymoron or an anachronism or both.² In other words, the phrase “astral magic” was invented to anachronistically describe intellectual history. It is important to emphasize that astrology was historically considered to be a science just as magic was considered to be a way of life in practice. Both systems differ from the contemporary understanding of science, but this difference does not permit a modern writer to join two different systems as though they were one. Moreover, astrology was utilized in order to “know the future” in advance and was not used as a technique to change one’s life, as magic claimed to do. The witch of En-Dor in I Samuel 28, for example, foretold to King Saul his future, in a similar fashion that magicians have forever revealed the future to their listeners, but this text does not allow an understanding that the witch was an astrologer.³ While it is true that in the Middle Ages there were a few magical practices that were meant to be carried out at particular times, or even under a specific star, it is clear that those who were involved in magic were not involved in astrology, and vice versa. That is to say that there were two different systems, one based on science and the other on religion; and these two systems had two different goals.⁴

People in the Middle Ages were familiar with both astrology and magic, of course, but no such concept of “astral magic” has ever existed, except in the writings of modern scholars. Now, in the book under discussion there is a sub-chapter on “Astrological Magic” (pp. 32-43). Against the above backdrop of academic dispute this sub-chapter was read, precisely in order to discover if anything may have been overlooked or misconceived on the subject, by myself or by any other.

As a matter of fact, the author does not try to explain why he uses the phrase “astral magic” at all, probably because he does not think anything to be wrong with it. Indeed, Lucas quotes (p. 39) Albert Magnus (1200-1280), that: “the twenty-eight lunar mansions are expressly connected with diabolic arts”. Now, the standpoint of a church-man (and Aristotelian as well) was that astrology and magic come from the same source, i.e. the diabolic; but there is no need for a modern scholar to adopt such a concept (unless he proves it). Modern scholarship differs from that of the Middle Ages, inter alia, in the way it proves theses and makes its cases. Here then, is a situation where clerical opinion has become modern scholarship, in such a way that

* The writer is the founder of the Association for Jewish Astrology and Numerology.

expressly resembles the same syncretism that the scholar has condemned elsewhere (p. 37).

On p. 40 Lucas presents his ideas concerning astrology and magic, and his words should be read carefully. He writes as follows:

Astrological magic, broadly defined, encompasses any magical or occult art that refers to astrological symbolism and professes a belief in the power of the stars. Astrological magic occasionally treats the planets as deities in their own right…

Again, the belief in the power of the stars does not necessarily have anything to do with magic. This is certainly clear for example in the case of R. Abraham ibn Ezra (1092-1167), who practiced astrology but never magic. However, it should be admitted that some astrologers thought that “astrology is the basis of magic”, as Thorndike explained Arnald de Villanova’s (c. 1238-1311) way of thinking. Even then, this concept does not accept “astrological magic” as a compound expression. One who knows the forces of the cosmos is a scientist, and taking advantage of these forces, just like flying a plane, is a scientific act. This is applied also to an astrologer’s acts – during the time when his work was considered to be scientific – being science as well, not magic. Only a layman might look at a scientist as a magician, much in the same way that modern people might look at an astrologer. Knowing cosmic forces is no magic: it is pure science.

Lucas continues by writing about “planets as deities”, though this concept was well known in Antiquity without any reference to astrology. By doing so it looks as if the scholar gives his data a misleading description, deliberately or non-deliberately. At the end of the paragraph he adds the following:

Two of the most common forms of astrological magic are sympathetic and talismatic.

Again, here is a half-true concept, with regards to magic as well as to astrology. First it should be made clear that sympathetic magic as well has nothing to do with astrology, and yet the scholar mentions this type of magic; irrelevantly, as it happens. Moreover, even the use of talismans as “astrological magic” is deceptive since, so far as I know, one cannot ascribe this practice to astrologers at all, but to healers. In other words, though talismans were used by magicians, this fact in itself does not say anything about their relations to astrology. There is no text or body of texts, whether the Tetrabiblos by Ptolemy in the 2nd century, or the astrological treatises written by

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ibn Ezra in the 12th, that may lead a scholar to the proposal that talismans have anything remotely to do with “astrological magic”. These talismans were evidence of the deep understanding of the nature of man and cosmos, as well as of the relations between them. They dealt with how to take advantage of this understanding to cure people. This is science – who said anything about magic?

Furthermore, once the scholar writes (p. 40) that “Sympathetic magic derives from the Hippocratic-Galenic tradition”, there is no need to refute him; we may only send him to read the basic books about the Hippocratic tradition.8

In sum, “Astrological Magic” is a modern concept, albeit derived from the Middle Ages. It reflects a misunderstanding of both astrology and magic, two systems that the Church was not fond of. The first one to identify the two systems as one (or, better: that any magic is Astrology was Agrippa of Nettesheim, around 1533,9 so this idea is relatively late (though one can think of Arnald as a predecessor). There is no reason why a scholar in the 21st century should adopt this concept. It is either an oxymoron or an anachronism, or both.

2. Jewish Background

The Tractat de prenstruction was not written by a Jew, nor was it intended to be read or used by Jews in particular (and there are no “Jews” in the modern index). It looks as though the book may have undergone a process of “Christianization”, and according to Lucas the text under consideration “is a powerful textual witness to non-Christian forms of future-telling”.10 Meanwhile, he draws attention to the Jews several times, implicitly and explicitly. He declares (p. 26): ‘Often the ideas of prognostication stem directly from Jewish or Arabic sources or have been filtered through them’. With this understanding he mentions the Jews in Catalonia, such as Nahmanides (p. 57), and discusses Gematria and all sorts of Hebrew books – Cabbala in particular. Among these books is a Hebrew translation of a book attributed to Aristotle. Hence, though their particular role is not immediately apparent, it is clear that Jews are indeed extant in the background. In reading this modern edition it seems that the scholar included Jews with good reason. Jews were not only part of the learned society in Spain but they played a major role in science in the Middle Ages as transmitters of Arabic books into the Christian realms. They were not only physicians and bankers, but astrologers as well. While it is true that 19th century scholars of the

10 As a matter of fact, the author of The Tractat mentions several Christian figures, such as: Virgin Mary (p. 107), St. Martin (p. 103), probably St. Martin of Tours (c. 335-400), founder of the Gallican Church, St. Margaret (p. 109), one of the most venerated saints during the Middle Ages. For an unknown reason Lucas does not discuss these figures, not even to provide clues as to the background of the writer.
Enlightenment refrained from admitting that Jews were (also) astrologers, today the tides have turned, and owing to our obligation to scholarship we must describe what we find and hide nothing, be it the “aberrant” astrologer or numerologist.

However, for the author to mention Cabbala was a mistake. At present no numerology can be ascribed to this body of work, nor to the Zohar or Abulafia. Furthermore, it seems that Lucas has misunderstood the role of Jews as converts. That is, his mentioning of the writings of Arnaldus (Arnau) de Vilanova (pp. XII-XIV; 9-10, 19n. and more) as a precursor of The Tractat, is not particularly impressive. Arnald (c. 1238-1311) held the chair of Medicine in the University of Montpellier; a physician, alchemist and astrologer who served popes and kings, he was one of the most learned people in his times. However, when Lucas adds that Arnald knew Hebrew (and Arabic) and was influenced by the Cabbala, one wonders if this person was not perhaps a Jew who had converted to Christianity. Indeed, in those days there would have been no school for a Christian to learn Hebrew; and furthermore historical records in fact point to the possibility that Arnald came from a Jewish family. If this is the case, it is possible to delineate the chain of tradition in numerology. Jews probably were involved in Numerology but not necessarily those that were in the main-stream of the Cabbala, rather Jews who moved from Judaism to Christianity, taking with them Hebrew and Arabic traditions making them Christian. The Inquisition banned Arnald de Vilanova’s books. Perhaps this was in response to his questionable background, in addition to the suspicions of their inclusions of magic.

2.1 Jewish Astrologers

In Jewish studies today, as it has been for centuries, one is supposed to know not only his Rabbis, but also his Rabbis’ Rabbis. In the 18th century HIDA (R. Haim Joseph David Azulai) wrote a book on the lives of past Rabbis; many more Rabbis would fill the pages of any encyclopedia. Jewish physicians, on the other hand, are less well known than Rabbis, and it is no secret that Jewish Astrologers are far less known still. Now, the foreword to our book, written by David J. Viera mentions a number of Jewish astrologers, in particular those who served in the courts of King Pere III (1336-1387) and King Juan I (1387-1395) of Aragon. Included are Juce of Osca, Isaac Nafusi, Vidal and Bellshom (=Shem-Tov) Efraim, and others (pp. XV-XVI). Viera also draws attention to an astronomical multi-language book in which Hebrew (along with Catalan and Latin) played a role. Lucas himself mentions (p. 27) Bonjorn (=Yom-Tov), a Jewish astronomer who was born in Girona in 1333, unknown, so far, in Jewish sources. Hence both scholars, Viera and Lucas, are aware of the Jewish background in astronomy and astrology in Spain in the Middle Ages.

In modern studies of Jewish history these astronomers and astrologers are almost completely ignored, not only because of the many languages involved in order to decipher their works, but also because of the disgraced name astrology has acquired. Except for a few astrologers, such as R. Abraham ibn Ezra, who is still studied until this very day (though not for his astrological merits), very few astrologers are known.

On the achievements of this scholar, see: L. Thorndike, A History of Magic and Experimental Science, New York: Columbia University Press, 1923, II., pp. 841-861; III., pp. 52-84.
from Medieval Jewish Spain. Only recently has research regarding the contribution of Jewish scientists in Spain begun. This research is pertinent predominantly when esoteric knowledge is part of the discussion. Though this is not the place to fill out the list of the Jewish astrologers in Spain, one name in particular stands out, as it demonstrates the depths of the Jewish background in Spanish astrology in just the way that both scholars, Lucas and Viera, perceive the subject.

R. Isaak b. Baruk ibn Albalya (1035-1094) was one of the most learned Rabbis in Cordoba in his time, and was appointed there as Nasi. He wrote a commentary on difficult issues in the Talmud and was also learned in Greek wisdom (=philosophy). The Muslim king al-Mu’tamid (1069 – 1091) appointed him as an official in his residence and palace, where he consulted him in the science of astrology. Thus, as early as the 11th century, one of the leading figures in Jewish Spain was a Rabbi who was also an astrologer. With such figures among the Jews at so early a date, the impact of Jewish astrologers in the later centuries is foregone. Hence what is needed now is a better knowledge of all Jewish astrologers in Spain, the better to reevaluate the Jewish role in astrology in the Middle-Ages.

Summing up this discussion, it is hoped that in the future scholars will collaborate to build a list of all the Jewish (and non-Jewish) astrologers and numerologists that played a role in Spain, either in the royal court or in Jewish society.

2.2 Gematria and Numerology

One of the issues discussed by Lucas is Gematria (pp. 56-58). However, it becomes apparent that neither he, nor most other scholars, knows the difference between Gematria and Numerology. All use these names as if the methods involved were the same. Therefore, there is a need to explain these methods and to clarify the differences between them. Now, Gematria is an old technique derived from a period where there were no specific characters for numbers (numerals), and letters stood for numbers. At its core, letters or words are taken for numbers, then these numbers are “converted” to other words. The system came from Greek civilization, known as isopsephy, though some scholars think it came from Mesopotamia. It is still often employed in Jewish circles to this very day. At any event Jews used Gematria from the first century BCE, and Christians used the same method, either from their Hellenistic or Jewish backgrounds. In the Talmud there are dozens, if not more, calculations of Gematria, so when one comes to the Middle-Ages there is no need to derive Gematria from the Cabbala since it had already been in use by that time for more than a millennium. True, in the High Middle-Ages one can see more types of

14 Hereafter the discussion is based on: M. Bar-Ilan, Genesis Numerology, Rehovot: The Association for Jewish Astrology and Numerology, 2003 (Hebrew).
Gematria, but there is nothing new in the actual method. Hence, Gematria can be described best as a type of number-based word play.

However, numerology is something else. Numerology is the sphere in which numbers take on symbolic meaning. Sometimes one realizes that numbers do not have the meaning of quantity but rather of a quality. A modern Hebrew example of this is in the usage of the number 10 when saying: “That man is 10” Though this is colloquial it is clear to the speaker and to the listener, depending upon culture, that here 10 stands not for quantity (e.g. “He is ten years of age”), but for quality: 10 denotes excellence. The modern scholar should certainly ask himself: How did 10 come to be identified with excellence? But this is obviously an issue beyond the scope of this discussion. What is clear is that sometimes even today numbers may be symbols for some kinds of quality (or meaning).

There are numerologists who predict the future by taking one’s name and converting it to a number that, according to them, characterizes one’s personality and future. Once the numerologist reveals one’s number, with the help of a table he can yield a prognostication. Such a table appears on p. 62 (96-97). At one point in his discourse Lucas searches for Jewish sources for this type of Gematria, though he concludes that he was not able to find any (p. 58). The reason for this lack is clear: the table deals with numerology and not with Gematria. To show the difference between the systems it is enough to merely steal a glance at the table, where letters are made equivalent to numbers. The table shows that C, D and R equal 4, B and L equal 2 (which does make sense), and K, Q and X equal 20. If M equals 12 and N equals 22, but no letter equals 5, it is clear that this is no Gematria at all but some kind of numerology of unknown source.

Summing up, the whole discussion undertaken by Lucas (pp. 56-58) is superfluous, and the main difference between Gematria and numerology is missing. While the reader might consider this statement a harsh criticism of the scholar, the truth is that the criticism is not necessarily leveled against Lucas, but rather against the whole field of Jewish Studies. When the scholar went into wonderland looking for Jewish material he didn’t find one because former scholars preferred to write on (what they considered to be) normative Judaism while ignoring any kind of popular or non-Rabbinic Judaism.

2.3 Secreta secretum and other Jewish books

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16 It should be noted that not all the cultures take 10 as quality. For example: “Ich habe eine Freund, er Zehn ist” makes no sense in German since the culture doesn’t take 10 for excellence.

17 It looks like a Catalan adaptation of Arabic numerology (since G=3 and Z=8).

18 Another concept of the scholar should be refuted, and that is the concept of “magical numbers” (p. 17). This is a misconception since numbers are not divided into magical and non-magical ones. Some of the numbers represent certain qualities, and only Numerologers (modern scholars not necessarily included) do know these qualities.
In his discussion of the precedents of *The Tractat de prenostication*, Lucas picks up *Secreta secretum*, a medieval book attributed to Aristotle. This pseudo-Aristotelian work is known today from more than 500 MSS, but the scholar discusses the Hebrew translation since it is more “complete” than the other versions (pp. 54-55). The text was printed and translated into English by M. Gaster almost 100 years ago. A word or two should be added in its regard. The book is a compilation of several topics; it is readily apparent that many hands contributed to the present text, so there is difficulty in discussing the way it might have been ‘originally’ presented. The content of the book is unsystematic, but it includes all sorts of advice to kings on how to rule. Also included is a numerological prognostication: how to know in advance what army will win the battle. It is simple: one just has to calculate the names of the fighting generals according to a numerological system given in the book, and it will become apparent who is to win.

When the author of *The Tractat* gives the computations 1-9, 1-8, 1-7, 1-6 etc., and he treats 1-9 and 9-1 as the same value, it becomes evident that the author’s system is very near – though not identical to – the method employed by the author of the *Book of Creation* (*Sefer Yezira*). The author of that book showed his ability to compute the different options in making Hebrew words out of only two letters. While the debt of the author of *The Tractat de prenostication* to Pythagoras is clear, it should be noted that the authors of both the *Book of Creation* and *Secreta secretum* borrowed additionally insights from later, Neo-Pythagorean thinking.

As for the *Book of Creation*, the idea that the author is reliant on Pythagoreanism is far from being new, and since that book deserves to be discussed by itself elsewhere, the subject will not be dealt with here. However, concerning *Secreta secretum*, its debt to Pythagoreanism is almost explicit. First, in chapter VIII (par. 58) the relation between the numerals 10 and 4 is stated. The Hebrew text is a bit dubious, and the English translator likewise suffers from not knowing basic Pythagoreanism. However,

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22 Lucas, pp. 50, 133, and see index p. 206.

the text should be read as follows: “...since 10 is 4 in sum, while 4 summing-up (its former) 1, 2 and 3 to 10”. 24 That is to say that 1+2+3+4=10; 25 hence we have here a Pythagorean Tetractys, a number that is produced by the placing of small stones to create a triangle. 26 According to a very simple equation [(n+1)*n/2=total], if one knows the last number in the triangle the sum of the triangle may be known as well. Thus we see there is a strict relationship between 4 and 10. This connection between the two numbers seems spurious to the modern eye, but it should be noted that Philo discusses it while explaining the Ten Commandments, 27 and R. Abraham ibn Ezra used this connection as well. Hence there is contained in the composition Secreta secretum a unique concept of mathematics, which underlines its connection to Pythagorean thinking.

Another possible connection between Secreta secretum and Pythagoreanism is found in chapter XI: a chapter on physiognomy, the art of “deciphering” human character based on facial features. Though there are good reasons to see this chapter as a later addendum, 28 it comes from the same tradition of the amalgamation of ideas from philosophers, physicians, astrologers and scientists (later to be considered as magicians, alchemists, healers and so on). At any event, this physiognomy was historically attributed to Pythagoras (Lamblichus, 255?-333; de vita Pythagorica 17), 29 and any text with such scientific knowledge should be attributed, one way or another, to Pythagorean circles. In sum, Secreta secretum exemplifies a blend of many sources with special emphasis on Neo-Pythagoreanism (as well as pseudo-Aristotelian works), 30 of the same temper as that known already in some Hebrew texts. This text

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24 In Hebrew the root slm that denotes “complete” (or: summing) is also “perfect”, which led Gaster to mistranslate the text as: “for ten and four are perfect numbers”. However, these numbers are not perfect, since the perfect numbers are: 6, 28, 496, 8128 (more numbers were discovered from the 16th century onward).
28 Gaster, p. XIII
should be taken into account while viewing the Jewish background of Catalan and Spanish books on Numerology and Astrology.

3. A Hebrew early source to Numerology

Lucas did a great deal of work to expose the sources of his book, and one must admit that though he did very good work, the sources of this science are still sparse and far from elucidated. The aim of the following discussion is to draw attention to a Hebrew source heretofore unknown in this field. The source should add to our understanding of the history of numerology.

Aside from *Secreta secretum*, the only Hebrew text that discusses numerology and names appears in The Book of Asaph the Physician. Before coming to deal with the text itself a few words should be added regarding this unusual book. The Book of Asaph the Physician is still a riddle with regards to the identity of its author, and the place and time in which it was written. For reasons beyond the scope of this paper, it has been traditionally assumed that the book was composed in the 6th or early 7th century CE. The author drew extensively from Greek medical sources, and translated them into Hebrew. In one particular instance Asaph uses numerology as a technique to foresee the wisdom of a proposed marriage. In paragraph 497 Asaph writes as follows:

If you want to know whether a man and a woman should marry or not: compute the names of the man and the woman, each by itself, and make them 99. If the remainder turns out to be:
11 – marry and love (each other)
12 - marry and like (each other)
13 – marry and they will quarrel
14 - marry and like
15 – will not marry, and then hate each other, etc.

The text continues with more calculation, and it is evident that the writer was sure that his reader would know how to make these computations. In the following paragraph Asaph writes to his reader regarding the case in which a slave runs away from his master – how may one compute the chances that the slave will be returned? One who

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33 That is: the rule of nine. See: K. Barry, The Greek Qabalah (sup. n. 14), pp. 121-122, 191.
really wants to know how these computations were performed can learn the details in the book under discussion, though there is a gap of almost a millennium between the Catalan book, written in the 15th century and Asaph’s book.

All told, while our scholar mentions Hippolytus (in the third century), as one of the earliest sources of Numerology, now we can add the name of Asaph the Physician (who subsequently drew his text most certainly from earlier sources). There is no doubt, then, that this source, together with the Hebrew text of *Secreta secretum*, is testimony to the Jewish practice in numerology in the Middle-Ages, though it still would be proper to wait until some more glorious stuff of this kind is found.\(^{35}\)

**Conclusion**

This book is a fine contribution to the study of the history of numerology in the Middle Ages. One should thank the scholar for entering into *terra incognita*; this of course is nevertheless the reason that he failed in some minor aspects of his discoveries. The whole combined issue of numerology and astrology is far from being the focus of mainstream scholarship. One still wonders to what extent the Jews did use numerology in the Middle Ages. The problem is that after three generations of Cabbala scholars it is apparent that none of them have attempted studying the history of numerology and its affinities to Cabbala. Therefore we will have to wait and see what will emerge from the many Hebrew manuscripts that are still waiting to be studied. Hopefully, this book will open a new stage in the study of these issues, and once again Jews – that is, Judaic Studies – will play a role in the intellectual history of Europe in the Middle Ages.

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\(^{35}\) Errata: p. 97 instead of "Aires" it should be “Aries”.