

The Jewish Contribution to the Transmission of the Classical Legacy

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The transmission and acquisition of the wisdom of the ancients throughout the Middle Ages is a fascinating phenomenon in which languages served as the primary vehicles for this journey of classical culture. The main route – but not the only one – was located on the Mediterranean coasts and incorporated Asia, Europe and Africa. It was a multi-directional journey.

Science and philosophy in the Middle Ages constituted a space for intellectual encounters, a common discourse in a world that was highly compartmentalised by religious identity. The first of the encounters took place between the pagan cultures of antiquity (Greek, Persian and Hindu) and the monotheist cultures (Jewish, Christian and Muslim). An encounter also occurred between authors in the three religions, who developed the same passion for this knowledge. Furthermore, reactions to this classical knowledge were similar in the three communities: feelings of sympathy as well as rejection were awakened. Both Muslim and Christian authorities promoted this phenomenon of acquiring knowledge and two medieval languages were used as scientific languages: Arabic and Latin.

Within these societies, there was a minority, the Jews, who played an important role in this transmission, both as recipients of the process and as a link in the chain. Bearing in mind their minority status, this role is even more significant: their qualitative importance far surpassed their quantitative importance. Jews contributed to the transmission of classical culture to the Muslim and Christian worlds in at least three ways:

- the collaboration of Jewish translators in translation activities, whether into Arabic or into Latin;
- the authorship of works that transcended the limits of the community itself to be integrated into the general and common culture; and
- the activity of Jewish masters in connection with members of the majority, whether Muslim or Christian.

Jewish Translators

Translation is the most obvious way to transmit knowledge and both the intellectual framework of Islam and the renaissance of classical culture in the Christian west were built through the process of translating texts into their respective languages.

Before the arrival of Islam, the classical legacy was already known in a Semitic language – Syriac – and often translations into Arabic were made from Syriac and not from the original Greek. The expansion and consolidation of Islam clearly, and in many cases favourably, affected the Jewish communities that had already spread throughout the territories that the Umayyad caliphate of Damascus had incorporated into its empire, from Persia to al-Andalus. One of the most interesting consequences was the fact that under Umayyad rule, Jews across this broad geographical space shared a single language: Arabic. This made it possible for distant communities to communicate and interact easily with their surroundings. This phenomenon of a common language did not occur in the European Christian world where Latin was scarcely known except by a few Jews who at no time made it their own, and where Hebrew became the *lingua franca* and the language for scientific and philosophical expression.

As noted earlier, translation is the first step in the history of the transmission of knowledge. One consequence of the Umayyad expansion was that it incorporated very important institutions for the preservation and transmission of Greek science and thought into their empire. One such institution was the Mouseion at Alexandria which was not only the most important cultural and scientific centre of the era, but which also housed many Maronite, Jacobean, Nestorian and Coptic Christians who translated classical Greek works into Coptic and Syriac. Other important areas were Anatolia and al-Sham (Syria), which had a large number of monasteries of Maronite, Jacobean and Nestorian Syriacs, and that were concentrated around the Iraqi rivers, the Tigris and the Euphrates. These schools, like Alexandria, also produced translations into Syriac.¹

Already in the Umayyad caliphate in the seventh century the first steps were taken to render this entire legacy into Arabic and from these early days Jews participated in the process. One example is a doctor, Masarjawayh, to whom the caliph Marwan b. al-Hakam entrusted the translation of a treatise on medicine from Syriac into Arabic in 683.² It would be the Abbasid dynasty (750–1258), however, that would become the driving force behind a translation movement that was organised around the Bayt al-Hikma (The House of Wisdom) in Baghdad during the eighth and ninth centuries. Because of the nature of the activity, translation favoured encounters between individuals from different religions and cultures.

Mashallah (c.754–c.813), a Jewish astronomer who translated from Persian into Arabic, was associated with the first period.³ Greek culture was the main source of wisdom, but in no way the only one; Persian and Hindu cultures also played important roles in the development of science among the Arabs. In the eighth century, political and historical works were translated from the Persian, while the collection of tales known as *Kalila and Dimna*⁴ was translated from Hindu. The first Arabic version of the famous astronomical treatise, Ptolemy's *Almagest*, was the work of a Jew, Rabban Altabari and his son Ali Ibn Sahl Ibn Rabban Altabari (9th c.). The son was the teacher of the great

Muslim doctor and philosopher Razes, as well as the author of medical works. Both converted to Islam.⁵ The leading role of eastern Christians, in turn, is well represented by Hunain ben Isaac who directed the Bayt al-Hikma (9th c.) and established the working method for translators into Arabic, bequeathing a professional character upon this activity.

The contribution of the Jews to translations into Arabic continued in al-Andalus, especially during the Umayyad caliphate of Cordoba. The Spanish Jews quite willingly received the Muslim invasion, which liberated them from the yoke of the Visigoth dynasties. The Umayyad caliphate promoted and managed to secure its independence from the Abbasid caliphate in Damascus. This stage of Muslim governance in Spain was without a doubt the most prolific, a golden age for the Jewish world that brought about an unprecedented cultural renaissance. The Caliph Abd al-Rahman III translated his desire for independence to the Jewish minority and insisted that they break their ties with the communities in Babylon that exercised intellectual and religious leadership over Jewish communities around the world.⁶

A good representative of this period is Hasday ibn Shaprut (c.910–c.970 or 990). Ibn Shaprut was the recipient of the culture that a moneyed family could offer one of its children during this era: he studied the scriptures as well as spoken and written Arabic, learned Latin with Christian teachers as well as Romance, which was spoken not only by Christians but also by a large part of the Spanish population that had converted to Islam. In addition, he devoted himself particularly diligently to the study of medicine. His fame as a doctor opened the doors to the court of Abd al-Rahman III to him.

Abd al-Rahman III's foreign policy promoted numerous encounters with representatives of other kingdoms: the Christian kingdoms on the Iberian Peninsula, the Muslim countries in northern Africa and even the Byzantines. The king did not hesitate to use minorities in these enterprises and sent a Christian to lead the Cordoba delegation to Constantinople. In turn, the Byzantines also sent a delegation to Cordoba with several gifts, including a magnificent Greek illuminated manuscript of Dioscorides' *Materia Medica*. Obviously, Greek was not a language that was understood in the Cordoba caliphate. There was already a translation of this work into Arabic, but it was very difficult to understand eastern botanical terminology in the west. For this reason – and taking advantage of the king's gift – a new translation was made into Arabic by a monk, named Nicholas, Hasday ibn Shaprut and a team of Muslim doctors. The monk translated from Greek into Latin and Hasday from Latin into Arabic.⁷

One century later, at the end of the tenth century, transmission to the Latin world through translations into Latin began. This movement developed in the territories with the most contact with Islam: Italy–Sicily and al-Andalus. The Italian route was the first, chronologically speaking, and focused on the figure of Constantine the African, who devoted himself to medical works and established the basis for medical knowledge in the Christian west with his translations.

In the north of Spain, Aragon and Catalonia, the first translations done on the Iberian Peninsula began with a Jewish *converso*, Pedro Alfonso, one of the first translators. However, the most important centre in this process of transmitting Greco-Arabic science to the Latin world was in Toledo. Toledo was conquered by Christian troops at the end of the eleventh century after a long tradition of Muslim governance. From this time on,

a rich cultural activity was carried out in a climate of tolerance towards Muslims and Jews, the consequence of which were the first steps towards what is known as the Toledo School of Translators. This began with the translation of philosophical and theological texts and was consolidated during the reign of Alfonso X the 'Wise' (13th c.) with the translation of works on medicine and astronomy.

The Toledo School of Translators did not develop a project as ambitious or structured as that of the Bayt al-Hikma, but it fulfilled the same role, becoming the foundation and centre of medieval Latin culture. This meant the beginning of the awakening of some Christian communities that had evidenced little cultural and intellectual vitality up to this point. The Jews who studied in Muslim Spain were in the best situation to contribute to this task since they knew both Arabic and Romance. The method, therefore, was for the Jews to translate into Spanish, and then for a Christian to translate from Spanish into Latin.⁸ Notable among these translators was Yohanan ibn Daud, who collaborated on the translation of a large number of works on philosophy, astrology, mathematics and medicine.⁹

A movement with similar characteristics took place in Naples under the reign of Frederick II, king of Naples and Sicily. This king drew educated Jews, whom he asked to translate Arabic texts, to his kingdom. These included Jacob Anatoli. In Provence as well, a similar relationship existed, exemplified by Jacob ben Makhir, a prestigious astronomer.

Thus, Jews helped transmit science to the west through translations into Latin. Latin, however, was not the only medieval Christian language that was used as a scientific and religious language. For instance, translations exist into different Romance languages such as Spanish, Catalan and French from the twelfth and thirteenth centuries.¹⁰ Another language also sought legitimacy as a scientific language – Hebrew, the *lingua franca* for European Jewish communities. Hebrew, and not Latin or the other emerging European languages, replaced Arabic as the language for scientific communication among Jews. One consequence of this movement of translating into Hebrew was the transformation of this language from its exclusive use for religion and literature, as had been the case until then, into an instrument for the creation of an impressive science library in Hebrew. At times, these texts in Hebrew also became a link in the chain of transmission, as with some of Averroes' works. When the Almohads condemned some works, the originals in Arabic were burned and only Hebrew versions were preserved. From Hebrew, they were translated into Latin.

The movement of acquiring learning through Hebrew versions was carried out by Jewish translators in difficult circumstances, at times under external pressures when the environment became hostile towards them.¹¹ Other times, on the other hand, the harassment came from the community itself, when the translators encountered a lack of understanding or open rejection from more conservative members, who were attached to the tradition of a community that felt its Jewish identity threatened from the knowledge of strange, i.e. Greek, traditions.

Jewish Authors

The classical tradition was absorbed and subsequently recreated very faithfully in the Muslim world. Indeed, the authors that drank from these fountains were building a body of wisdom so tightly linked to the Hellenic world that it is possible to speak of the *corpus*

of Greco-Arabic knowledge. With the passage of time, they themselves became classics, *auctoritas*, and, as such, were passed on to the Latin world. This was another way of contributing to the transmission of Greco-Arabic science. These classics include several works by Jewish authors, and this avenue – that of Jewish authors translated into Latin or vernacular languages – became another way in which this minority contributed to the transmission of knowledge.

Philosophy

There were several Jewish authors who came from a Muslim environment, wrote in Arabic and had their work translated into Latin. In the field of philosophy, works with the most universal nature were sought after. In this respect, the most paradigmatic example is that of two Spanish-Hebrew authors: Solomon ibn Gabirol and Bahya ibn Pakuda. The former was a prestigious poet and the author of works of a moral and ethical nature and one philosophical treatise, the *Fountain of Life*. This metaphysical work, which makes no reference to the particular characteristics of the Jewish world, was translated into Latin with the title *Fons vitae* and was completely ignored by the Jews themselves. On the contrary, Bahyah ibn Pakuda's *Duties of the Heart*, a work of an ethical nature where philosophy is put in the service of religion, enjoyed great prestige among Jews, but never aroused any interest in the Christian world.¹²

Something similar emerges from the analysis of the Latin translations of Maimonides's opus; the *Book of Logic* and the *Guide for the Perplexed* were translated, but nobody paid much attention to his epistolary literature. Many of these letters tackle topics that are either universal or common to the three religions, such as martyrdom for religious reasons and resurrection. They also have the added value of being based on real concerns and deeds, since this literature originated in consultations with communities that did not know how to face very specific problems. However, the Christians did not pay attention to these valuable writings, which dealt with contemporary problems.

Medicine

Medicine as written by the Jews reached the highest point among authors in the Muslim sphere who wrote in Arabic and were translated into Latin as part of the Greco-Arabic scientific legacy. Two authors merit special attention: Isaac Israeli and Maimonides.

Isaac Israeli (9th c.) is one of the first medical authors in Arabic and one of the first whose work was known in the west, thanks to Constantine the African's Latin translation. Israeli was a North African author who was born in Egypt and spent most of his life in Kairouan. Like many other Jewish authors, he not only wrote in Arabic but also combined his philosophical work with his medical work. While his philosophical works did not have a great impact, even in Jewish circles, his medical work transcended these limits to become well-known to Muslim as well as Christian authors.

One of his works, the *Book of Fevers*, stands out as the best example of the influence of Jewish doctors in Christian universities. This work was translated into Latin, twice into Hebrew and once into Spanish. The Latin translation was the work of Constantine the African who did a rather free and personal translation, introducing modifications such

as abridgements and omissions as well as interpolations. Perhaps Constantine the African thought that he could improve the text, or perhaps he thought it necessary to make it more accessible to European readers who were not as familiar with Greek science and philosophy as Isaac Israeli might have been. Constantine also translated other works by Israeli that were very successful and disseminated to almost all the European universities; in most of them, Isaac Israeli's work became compulsory reading. From this Latin translation, others were made into Hebrew, Spanish, Catalan, French and German.¹³

Maimonides' main contribution to Christian medicine was his role as a faithful transmitter of Galenic medical ideas and it is no coincidence that there was a movement to translate these works exactly when Christian doctors were looking for new studies and sources to better understand Galen. Maimonides contributed to this improved understanding of Galen with his work *Abridgments of the Works of Galen* and most especially with his book (*Medical*) *Aphorisms*, which became his most popular work, in both the Hebrew and Latin versions. In the prologue to the text, he expressed the debt he owed to Galen:

And I do not claim to have authored these aphorisms that I have set down in writing. I would rather say that I have selected them – that is, I have selected them from Galen's words from all his books, both from his original works and from his commentaries to the books of Hippocrates.¹⁴

The Latin title of the work, *Aphorismi secundum Doctrinam Galeni*, is significant with respect to its recognition of Maimonides as the transmitter of Galen.

At the end of the fourteenth century, there was a renewal of interest in Maimonides' opus and some of his books were translated again into Latin. This was the case with *De coitu*, *De asmate*, *De venenis* and perhaps *Regimen Sanitatis*. *De venenis* was translated up to three times.¹⁵ This interest coincides with the search for new works by Galen to incorporate into the Latin library of medical texts, which Luis García Ballester called 'the new Galen'.

The Science of the Stars

In the field of astronomy, the Toledo School of Translators included Avendauth Yohanan ibn Daud, who translated Mashallah – who, as noted above, was a translator of texts from Persian into Arabic – into Latin.¹⁶ Abraham ibn Ezra, who was born in the north of Spain (Tudela, 12th c.) but educated in al-Andalus, made the transmission of this wisdom to European Jews a very real objective. He did not accomplish this through translation, but rather through personally writing astrological and astronomical treatises in Hebrew that presented the development of these sciences in the Muslim world. He travelled around Europe, bringing his knowledge to Jewish communities, but also entered the Christian world through Latin versions of his works. His book, *Sefer ha-Me'orot* [the *Book of the Luminaries*] was translated twice, once in 1292 by Henri Bate of Malines and a second time by Pietro d'Abano. These Latin versions were printed several times in the fifteenth, sixteenth and seventeenth centuries.

Translation from Hebrew into Latin is rather rare, but when it did occur it especially involved astrological medicine, which sought to relate the movements of the moon and the stars to phenomena such as the critical days in an illness or the best days to bleed a patient. These theories could already be found in the classics, but it was Jewish authors

who were especially skilled at rescuing them in the light of this unusual phenomenon of translations from Hebrew into Latin. In addition to Abraham ibn Ezra's work, another text, the so-called *Kelal qatan* [*Concise Summary*] by David Yom Tov, was also translated into Latin.¹⁷

Jewish Masters

The third channel through which Jews contributed to the transmission of knowledge was the direct work of the Jewish masters who either taught their science to Christian contemporaries or contributed to establishing institutions associated with learning with them. Such was the case of Abraham ibn Ezra, according to the research done by Millás Vallicrosa, who has indicated the possibility that during his trips around Europe, Ibn Ezra did not limit his teaching to Jewish communities, but opened it up to Christian communities as well, even delivering some of his works in Latin.¹⁸

In the same field of astronomy-astrology, it is important to mention the doctor, translator and astronomer Jacob ben Makhir ibn Tibbon (Montpellier, 1236–1304). He was very active in these processes of transmission, and contributed, like the rest of the Ibn Tibbon family, to the transmission of the Greco-Arabic legacy to Jewish communities with his Hebrew translations mainly of astronomical texts and Greek and Arabic mathematics. He also authored two astronomical treatises, one on an astrological instrument, *Quadrans circuli*, which he himself translated into Latin in collaboration with Armengaud Blaise.¹⁹ His other work on astronomical tables was also translated into Latin and achieved great fame in the Christian world.²⁰ He collaborated with two masters of medicine at the Montpellier school, Arnau de Vilanova and Bernard de Gordon, and came to preside over this department, according to Jean Astruc.²¹

The Montpellier school of medicine serves as another example of this mastery. Historically, it has been connected with the Jewish community, a connection that would not have been possible without the inestimable help from the Jews of Andalusian origin. This was a substantial group of Jews who, when the Almohad invasion of the peninsula forced them into exile, opted to go to Christian kingdoms and not to other Muslim countries. The greatest treasure these Jews travelling to Europe possessed was their knowledge of the Arabic language and culture. However, the university began closing its doors to non-Christians and distanced itself from the Judaic-Muslim educational influence once it was possible to reproduce the knowledge gained from these sources within the university setting. By 1390, Jews were prohibited from entering the Montpellier school of medicine, which reveals not only an exclusionary attitude on the part of the Christians, but also the fact that there had been a Jewish presence throughout the fourteenth century.²²

Another interesting phenomenon is that of Jewish authors who used vernacular languages for their writings. In this way, their knowledge was neither limited to the world of the university nor locked up within the confines of the *aljama*. The use of vernacular languages, whether by Jews or Christians, meant that the public receiving these works was larger and, consequently, they had a greater impact. Alfonso X had earlier promoted translation into Spanish and he himself had practised it. In the Christian kingdoms, authors of sapiential literature wrote their works directly in different Romance languages.

One example is Sem Tob de Carrion (1290–1369), who had a very close relationship with the Castilian court and who, in addition to his work in Hebrew, wrote a text in Spanish, *Proverbios morales* [*Moral Proverbs*]. In the same sphere of sapiential literature, a Jew from Barcelona, Jahuda Bonsenyor wrote his *Llibre de paraules e dits del savis e filòsofs* in Catalan. These works are the earliest samples of the literature of moral maxims in Spanish letters.²³

Also closely tied to the court was Abraham Zacuto (1450–1510), an astronomer who wrote several works in Spanish. He was also active at the University of Salamanca. His enterprise, enormously enriching for Castile, was abruptly interrupted by the expulsion of the Jews from Spain in 1492. He went into exile in Portugal, which he had to leave again only five years later, fleeing forced conversion. He then settled in the Ottoman Empire, where many Sephardic Jews ended up after the expulsion, and died in 1510, leaving behind an opus in Hebrew and Spanish.

The Middle Ages were coming to an end and with them the re-reading of the classical world through Arabic sources and translations. In the transition from the Middle Ages to the Renaissance in Italy, some Jewish authors became influential figures and masters in the field of philosophy. One example is Elijah Delmedigo (ca. 1458–1495), who was born on the island of Crete. He may have gone to Italy to complete his medical studies and there became a professor of philosophy at Padua and Venice. As a professor of philosophy, he spread Averroistic ideas, the so-called ‘radical Aristotelianism’, which was known from the Hebrew and Latin versions that the Cordovan author had made. His disciples included Giovanni Pico Della Mirandola and Domenico Grimani of Venice. While his non-Jewish students considered him an Averroist, within Judaism he was considered to be a follower of Maimonides and rationalism in the controversy surrounding this author. ‘Elijah Delmedigo explicitly saw himself as a defender of this rationalist tradition, which he regarded as being the most authentic form of Jewish thought since the time of the Geonic period (8th to the 10th c.) in Babylon’.²⁴

Another of these authors is Judah Abrabanel (ca. 1465 – after 1521), known as Leone Ebreo, and who wrote his *Dialoghi d’amore* [*Dialogues of Love*] in Italian. The history of this work affected not only the spread of philosophical thought, but also boosted the use of vernacular languages, in this case, Italian. His mastery of this language is particularly surprising given that this author was Portuguese by birth. Even while serving as a precursor to Renaissance thought, Abrabanel was also the transmitter of Greco-Arabic thinking, frequently citing Plato, Ghazali, Avicenna and Maimonides. According to Aaron Hughes, ‘One of the most surprising features concerning the reception history of the *Dialoghi* is that a work of Jewish philosophy would subsequently become a European bestseller among non-Jews. In the years immediately following its Italian publication, the *Dialoghi* was translated into virtually every European vernacular’.²⁵

Conclusions

Jews participated quite actively in the transmission of knowledge from East to West from the beginning of this history, when translations into Arabic began in the eighth century in Baghdad until the end of what is called the Middle Ages, when the Renaissance began to

emerge. It may seem that this participation occurred for circumstantial and practical reasons related to their condition as a nomadic people, one of whose greatest riches was their knowledge of languages. I believe, however, that what is revealed is a will to discover the world of philosophy and science that ancient peoples like the Greeks, the Persians and the Hindus had developed. Actually, the Jews had maintained very close contact with some of these cultures before, which is, indeed, a circumstantial factor, and a very decisive event was the appearance of Islam and its expansion, which favoured the study and absorption of this legacy and its transmission in a single language, Arabic.

The Jews were not inclined to cut themselves off from the intellectual currents in the different time periods and geographical areas that have been explored in this article, not even when the scientific language, Latin, seemed distant and forced them to make their own language the language of scientific expression. From that point on, access to knowledge would be influenced and conditioned by translations into Hebrew.

The situation of a minority is rarely free from difficulties and tensions. The Jews experienced these difficulties at the hands of the majority that surrounded them and that, with different levels of intensity throughout history, marked them for special and abusive taxes. They were harassed, pursued and expelled. From within their own community, as well, there was a lack of understanding towards those who ventured outside their own tradition, risking the loss of identity with their curiosity.

This history clearly shows that the creativity and literature of the Jews most easily flourished within a climate of communication with their environment. This was the case of the Umayyad caliphate on Spanish soil, where the Jews not only were not subjected to harassment, but where they also shared Arabic as a scientific language with the Muslims. But it was when their good relationship with the Muslims broke down that the Jews began to play the role of transmitter between East and West.

With the support and patronage of the authorities, a translation movement that would contribute to moving the centre of cultural activity towards Christian Europe started up again. As a result, even one of the best authors in the Spanish-Muslim world, Averroes, gained great importance among European Christians and Jews, but was neither important nor enjoyed any continuity in the Islamic world. The Jews were taken in with open arms in the courts of Toledo, in Sicily and in Provence where they not only served as translators, but also contributed to setting up prestigious institutions such as the Montpellier school of medicine. Later, anti-Semitism made its appearance and the members of this institution were expelled.

Language as a vehicle became the greatest protagonist in the history of transmission. One scientific language predominated in each period, Arabic or Latin, but in Europe, vernacular languages slowly emerged as languages for literary and scientific expression. This phenomenon also affected Hebrew, into which an incredible number of philosophical, mathematical, astronomical, medical and other works were translated from the seventh century until the end of the fifteenth century, first from Arabic and later from Latin.

To end, I hope to have shown that Jews contributed in different and often decisive ways to the transmission of the classical and Arabic legacies to Europe, to both Christians and their fellow Jews. This contribution is quantitatively important, because they were a minority, and qualitatively valuable, because it took place in the context of a profoundly anti-Semitic medieval Europe.

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Lola Ferre is a Professor in the Department of Semitic Studies in the University of Granada, in the area of Hebrew Studies. She has devoted her academic career to the study of medieval Judaism in Southern Europe in the middle Ages, both in Muslim and Christian environments. She has paid special attention to the phenomenon of the transmission of knowledge through translation from and into different languages (Arabic, Latin, Hebrew and vernacular languages), mainly in the field of medical texts. She has edited the Hebrew version of some medieval Christian authors' books and has analysed the translation into Hebrew of authors linked to the School of Medicine of Montpellier (Arnau de Vilanova, Armengaud Blasi, Johannes de Parma, Bernard de Gordon). She has also researched Jewish and Muslim authors of the medieval Arabic-speaking world such as Maimonides, Avicenna and Isaac Israeli.