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MUSIC STUDIES IN 1254 AT THE UNIVERSITY OF SALAMANCA. AN AL-ÁNDALUS LEGACY

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ABSTRACT

The first university in Spain, the fourth in Europe, was founded in Salamanca in 1254, and among the persons mentioned in its Royal Charter to teach, one of them was an “organo teacher” (“maestro en organo”) this was a uniqueness because in the 13th century music was taught only in churches and monasteries. Its existence is not a coincidence, because this novel university replicated the way of learning in al-Ándalus, where music was taught and played outside religious life. That fact was worldwide known in 1720 when *The history of Spain* was published and since then, some have debated whether it was a “chair of music” and whether the “organo teacher” taught theory. Considering that in the Quadrivium the physics of sound was not independent, it could be inferred that principles of acoustics was taught there in 1254. In this paper it will be demonstrated that it is not a semantic question of interpreting words, but of interpreting them in the historical context that was written, then it can be assured that it was a professorship, and by the counterfactual in this chair of music was taught the theory of sound/music, just as it was done in al-Ándalus.

Keywords: *history of science, al-Ándalus, acoustics, music, University of Salamanca.*

1. INTRODUCTION

Spain was built with the fusion of kingdoms and crowns that existed in the Iberian Peninsula, and one of them organized in the early 13th century was that of Castile, (*Castle* in English, named for the large number of castles in

that region), which, to ensure its linguistic and political identity, King Alfonso X *El Sabio* (The Wise) created in 1254 at Salamanca city the first Spanish university, being the fourth in Europe.

Contrary to the rest of the European kingdoms of that time, authorities, universities, institutions and the Vatican itself, which used Latin as a cultured language for official written and oral communication and also for teaching, Alfonso X “through the work of his *scriptorium* and the dissemination of documents from his chancellery, left this prominent position to Castilian” [1] (Castilian as a language of Castile); hence the use of Castilian language¹ in the first-born University of Salamanca. This decision is evidenced by a copy of the original manuscript of the Royal Charter, which is written entirely in Castilian language.

The first history of the University of Salamanca was written by Pedro Chacon in 1569, which mentions also the “maestro en organo” [2], but according to an in-depth analysis of his manuscript published in 1990 [3], the text was biased and tendentious, perhaps to please the authorities (who were in power in the year this manuscript was written), making it an unreliable source of information. Another book discarded as a source was published in 1855 by Mariano Soriano Fuertes [4], mainly because his investigation relied on *Virgilius Cordobensis* (a.k.a. Virgilio), an apocryphal writer, who supposedly wrote about the creation of the Chair of Music at University of Salamanca, and other issues linked to this matter, as if he had been contemporary [5].

Since it is necessary to increase the importance of this Chair of Music at the University of Salamanca in 1254, the author proposes this discussion, because ultimately music is the creation of sound. This article is a meta-analysis based on

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¹ Centuries later “Castilian” language gradually changes its name to “Spanish” language. After the creation of the Royal Spanish Academy (RAE) in 1713, contributes to the standardization and promotion of the term “Spanish” instead of Castilian. The RAE is Spain’s official royal institution with a mission to ensure the stability of the Spanish language.



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FORUM ACUSTICUM EURONOISE 2025

primary sources (old, digitalized manuscripts available on the Internet), and it is part of a side research started later in 2022, which is conducted by the author who is publishing the history of the acoustics in Spain, in the Acoustics Journal of the *Spanish Acoustical Society*.

2. THE HERITAGE OF AL-ÁNDALUS ON THE CREATION OF THE UNIVERSITY OF SALAMANCA

In the 13th century, part of the Iberian Peninsula was still occupied by Moors, where in al-Ándalus they cultivated (among other arts) the music. In Córdoba city was created around 850 what is considered the first school of music in western world, where they taught theory and practice, which was revolutionary both in its time and today, because it was open, did not depend on any religion, and people of both sexes studied [6]. Later, other teaching centers similar to this music school existed in some other cities such as Malaga, Murcia, Seville, and Toledo (the latter had already been reconquered by the Iberians in the 11th century). It is important to highlight that in al-Ándalus learning and practice of medicine, law, music and other disciplines were open, considering that the knowledge of the Greeks philosophers through Arabs translations were of usual reading. Unlike the rest of Europe, where Greeks writing was banned, in the Iberian Peninsula it was commonly read by the ruling class.

In the 13th century, the city of Toledo was annexed to the Kingdom of Castile, which had a school for translating manuscripts from Arabic to Latin (and probably to Castilian as well), which was of great relevance to the future University of Salamanca. Another city occupied was Murcia where Abu Bakr Muhammad ibn Ahmad al-Raqtí (?), a renowned Muslim scholar who born in al-Ándalus, Alfonso X distinguished for his abilities in music, mathematics and other disciplines, so kept him to teach in the schools (Murcia, Sevilla and Salamanca) founded in his kingdom [6].

As for the study and teaching of the physics of waves and sound, in the Middle Ages these were integrated into music as part of the Quadrivium, they did not exist as separate entities. In al-Ándalus, music played a very important role in society, it was seriously studied with the advances introduced by Arab thinkers who improved and deepened the contributions that the Greeks had made in this field. Although not explicitly focused on modern physics, Arab and Moorish scholars explored the physical nature of sound, its propagation, and its relationship to musical intervals.

The contributions of Moorish scholars in al-Andalus to the study of sound waves and music were part of a broader intellectual tradition that extended beyond the Iberian Peninsula. This knowledge, accumulated over four centuries, gradually spread from al-Andalus to the rest of Western Europe. A summary of these historical facts is presented in another article by the author [7].

3. 1254: THE ROYAL CHARTER OF THE SALAMANCA UNIVERSITY AND THE “MAESTRO EN ORGANO” (TEACHER IN MUSIC)

The germ of this university dates back to 1218, which began as *Studium generale* (higher studies), and king Alfonso X El Sabio (The Wise) elevated them to the category of university studies on 1254, through a Decree which is known as “Carta Magna de la fundación de la Universidad de Salamanca” (Royal Charter of the foundation of the University of Salamanca).

The original manuscript of the Royal Charter is lost and the oldest handwritten copy of it is from 1401 and is preserved into the archives of the University of Salamanca [8]. The manuscript is written in square Gothic script (see Fig 1) and vocals has no accent marks (diacritics)².



Figure 1. Image extracted from the Royal Charter copy from 1401. Paragraph where “maestro de organo” is mentioned. All rights are reserved, Universidad de Salamanca®

Regarding the people who would teach at this university, they are mentioned as “maestros” (“teachers”) [8]:

De los maestros mando e tengo por bien que ayan vn maestro en leys [...] Otrosi mando que ayan vn maestro en decretos [...] Otrosi mando que ayan dos maestros en decretales [...] Otrosi tengo por bien que ayan dos maestros en lógica [...] Otrosi mando e tengo por bien que ayan dos maestros en lo gramatica [...] Otrosi mando e tengo por bien que ayan dos maestros en física [...] Ot si mando y tengo por bien q' ayan bn maestro en organo y yo q'le enqina m's cada Anio.

Among them, the last one is stated as “maestro en organo” (music teacher). Fig 1 shows the paragraph where the Royal Charter refers to “maestro en organo,” and it is written (in

² First written Spanish texts using diacritics to indicate the tonic syllable, date from the mid-16th century.





FORUM ACUSTICUM EURONOISE 2025

old Castilian language) that: “Another thing I do order, and it is good that there is a teacher of music, and I give him fifty maravedis each year.”

It is important to note that the word “organo” was written without an accent on the first letter “o,” firstly because the Castilian script (writing) was still developing at the time and the accent on vowels was not yet in use, and secondly (and more importantly) because “maestro en organo” refers to the teaching of music and not to the learning of the organ (to be more precise, “the pipe organ”). This statement will be demonstrated later.

The existence of a chair of music at this university is not a coincidence, and there are two very important reasons that justify that fact: In his youth, Alfonso X received theoretical and practical training in music from the people of al-Ándalus; and throughout his adult life, he distinguished himself as a musician, composer and protector of music [8]. Alfonso X is considered one of the composers who contributed the most songs to the *Cantigas de Santa María* (Songs of Holy Mary), a collection of 420 poems with musical notation –written between 1270 and 1282– that is one of the most important compilations of monodic songs in medieval literature. Of a troubadour and paraliturgical nature, it differs from the openly profane themes of the troubadours of the rest of Western Europe and from the sacred music of the 13th century [9].

4. MISTAKE IN MANY REFERENCES FOR USING THE WORD “ORGANO” ACCENTED

The author of this article considers a mistake to write in Spanish about the history of the University of Salamanca without considering the historical context of the 13th century, and there are countless references where the word “organo” is written with an accent on the first letter “o,” resulting in “órgano,” being this a mistake.

Writing the word “órgano” (with accent mark) instead of “organo” (without accent) changes the original meaning of the function of the music teacher at the University of Salamanca in 1254, and also because someone who uses this incorrect reference to translate it into another language will unknowingly misinterpret that “it was a teacher who taught how to play the pipe organ.”

In section 7, the fact that singing and music were taught as a science in this Chair of Music could be demonstrated by a document from 1256 on the organization of the University of Salamanca.

5. FIRST CHRONICLE IN CASTILIAN ABOUT THE “MAESTRO EN ORGANO”

Although the history of the University of Salamanca was written in 1569, this manuscript was stored away for almost 300 years, and it was around 1840 that it was recovered from an archive in the Vatican.

Although the “maestro en organo” is briefly mentioned by Francisco de Salinas, in a prologue of his Treatise of music published in 1577, the first book which summarizes the creation of the University of Salamanca was published in 1720 by the Jesuit scholar Juan de Ferreras y García, co-founder of the Royal Spanish Academy, refers to the Royal Charter for the foundation of the University of Salamanca in his encyclopedia “The History of Spain,” transcribing instead of literally copying the 1401 text as “instituyendo ... una Cathedra de Musica” (establishing ... a Chair of Music) [10]. This change introduced in the original text is interesting for two reasons: (a) He categorizes the function of “teacher” at the level of a professorship, and (b) he assumes that “organo” refers to the teaching of music.

6. EARLY REFERENCES IN OTHER LANGUAGES TO THE “MAESTRO EN ORGANO”

The author of this article, after three years of searching the Internet, has not found any direct or indirect references published before 1720 about this music teacher at the University of Salamanca, in other language than Spanish³. Below are the first references available on the Internet to this Chair of Music.

6.1 First reference published in French

“The History of Spain” encyclopedia was translated and published in French in 1751 by Ferreras, so, following the original form written by himself, that phrase was translated as “Chaire de musique” (Chair of music) [11].

6.2 First reference published in German

In 1767, in a book published in German, which summarizes the history of Europe “according to what is reflected in proven news,” it does not mention the source of information but surely it is the Ferreras’ encyclopedia. The phrase “Cathedra de Musica” was written as “lehrstuhl der musik” (teacher of music) [12], that is, it maintains the semantics of what was written into Spanish in the 1720 encyclopedia following the meaning that music was taught in a chair.

³ The reader should consider that search engines do not display all documents available on the Internet.





FORUM ACUSTICUM EURONOISE 2025

6.3 First reference published in English

As far as an English reference is concerned, of the publications available on the Internet, the first is from 1800, and it is cited in a British encyclopedia as follows: "In Spain, music was early included in the circle of sciences. The professorship of music at Salamanca was founded by Alfonzo the Wise, K. of Castile [13], in which it makes it clear that it was a chair for the teaching of music in a university field of knowledge as a science."

7. IN 1254 MUSIC WAS TAUGHT AS SCIENCE IN THE UNIVERSIT OF SALAMANCA

After the Royal Charter was published, Alfonso X wrote a codex containing laws for this new Kingdom, originally named as *Libro de las Leyes* (Book of Laws) now is identified as *Siete Partidas* (Seven Records), which contain several regulations for the University of Salamanca that reflect the medieval view of education and the importance of this university in that social milieu.

According to a comparative analysis between what is written in the *Siete Partidas* and the Royal Charter, indicates that they differ since the lexicon in the *Siete Partidas* "is closer to the Bologna model or reality than Salamanca's" [14]. One of the most reliable transcriptions of the *Siete Partidas*, is published by the Royal Spanish Academy [15], because this document keeps the original ancient scripts and spelling.

Regarding the legislation on the University of Salamanca, the main content is in *Segunda Partida* (Second Record) under the title "De los estudios en que se aprenden los saberes e de los maestros e de los escolares" (On the studies in which knowledge is learned and of teachers and students), and some other regulations are scattered in the other six Records.

In the following, the number of the page is mentioned where the references to the "maestro" and also to the music and the science in the *Siete Partidas* can be found in [15], then the sentence in old Castilian, and next its translation in English:

- On page 66: "E otrosy en musica que es saber de los *sones* que es menester para los cantos de santa Iglesia." The word "sones" is purposely highlighted, because it is the Latin word "sonus" in Castilian language. "And others, in music, which is the knowledge of sounds that is necessary for the songs of the holy church."
- On page 200: "Ley .x. que los maestros no deuen vender la ciencia por precio." "Law 10. Teachers shall not sell science for money."

- On page 500: "Estudio es ayuntamiento de maestros & de escolares que es fecho en algun lugar & con voluntad & con entendimiento de aprender los saberes (...) es a que disen estudio general en que ay maestros de las artes assi como de gramatica & de la logica & de rretorica & de arismetica & de geometria & de musica & de astrologia." "Study is the conjunction of teachers and scholars that is done in some place and with the will and understanding to learn knowledge (...) general study is in which there are teachers of the arts as well as grammar, logic, rhetoric, arithmetic, geometry, music and astrology."
- On page 905: "& los maestros a los discípulos a que muestran su ciencia" "And the teachers to the disciples to whom they show their science."
- On page 947: "mismo dezimos que seria si le diesse en salario a algund su maestro que le mostrasse ciencia" "We say the same thing would happen if a salary were given to a teacher who shows his science."
- On page 983: "& los otros maestros de las ciencias que han salarios ciertos cada año del rey o del comun de alguna cibdad o villa" "and the other teachers of the sciences who have received certain salaries each year from the king or the common people of some city or village."

In the *Siete Partidas*, instead of referring to the "maestro en organo," it is written as "maestro de música" (music teacher), which is very important since it gives a more direct clue that the function of that teacher in 1254 was to teach music.

Regarding the use of the word "science" to identify the pedagogical functions of teachers in the *Siete Partidas*, it shall be noted that the meaning it had in the 13th century does not have the same meaning today, since in Latin the word *scientia* means knowledge.

Then, at this point, it urges us to ask a rhetorical question: **Can we say that in 1254 the presence of a "maestro en organo" (teacher of music) was equivalent to a professorship?**

It can be observed that there is a lot of information about the "maestro en organo" inside the *Siete Partidas*: Alfonso X thought music and sound as science. A complete analysis of the university's studies on music in the *Siete Partidas* are in [16] [17].





FORUM ACUSTICUM EURONOISE 2025

8. DISCUSSION ABOUT WHAT THE STUDY COULD HAVE INCLUDED IN THIS CHAIR OF MUSIC

As was indicated in the Introduction, it is necessary to increase the importance of this Chair of Music at the University of Salamanca, and because there are no written documents for the first 200 years of this institution, the author will use some additional investigations.

A few researchers have made interdisciplinary studies among Arab philology, musicology, medieval linguistics, and comparative literature [9] [18], that is said about the chair of music are inferences based on documents of that time, such as the *Siete Partidas*, the *Cantigas de Santa María*, and other sources of information also from that era. So, in order to put some general context involving the teaching of music in 1254, to find what kinds of topics that would have been involved.

8.1 Organum, the polyphonic chant

Polyphonic chant, also known as *organum*, was a complex musical form that developed in the 12th century, and “by ‘maestro en organo’ probably organum in the sense of the science of discant was meant” [19]. The word organum was also used to refer to the teaching of this kind of chant, for this reason it is inferred that “organo” could be associated to teach music. Additionally, the *Cantigas de Santa María* often feature complex polyphonic arrangements, indicating a knowledge of harmony.

8.2 Quadrivium: Music and arithmetic

Cantigas de Santa María offer a way (by the *contrafactual*) to understand what could be teaching in the chair of music in 1254. They are a collection of secular poems with musical notation, showcasing a sophisticated understanding of music theory. The use of mensural notation, which precisely indicates rhythmic values, suggests an awareness of intricate musical structures, and the knowledge to link the theoretical aspects of arithmetic with musical sounds, meaning the mathematical foundations of sound and its relationships between musical intervals.

8.3 The science of sound

Continuing with the tradition inherited from al-Ándalus, the “maestro en organo” taught the behavior of sound embedded in music [7], because their ideas could have influenced the thinking of music theorists in Salamanca, even if they were not explicitly articulated in the same terms. Then, it could be inferred that this chair of music would include the study of: Sound physics, understanding

how sound is produced and transmitted; the theory of musical intervals and consonances; the study of musical notation and the principles of musical composition. It’s highly probable that the study of sound (sones) were incorporated, albeit in a more rudimentary form than we understand today.

9. CONCLUSION

We are able to say that in 1254 the University of Salamanca had a chair of music, the first in the world, with a professor called as “maestro en organo.” This historical fact is justified by hermeneutics, understood as a general theory of the understanding of texts, with the intention of giving a systematic approach to the translation of ancient texts, consisting in reading the manuscripts as they were intended at the time of their writing and understanding them in their real social context and cultural environment.

It is also clear that in order to understand this historical event of 1254, the “maestro en organo” cannot be analyzed as isolated data, as mentioned in the Royal Charter, but rather it is necessary to refer to the *Siete Partidas* to better understand his academic role as a professor who could be dedicated to: Teaching music, polyphonic singing, playing instruments.

It’s important to remember that medieval music education was very different from modern music education, the focus was on understanding the underlying principles of music, rather than developing performance skills. In essence, the teaching of music by the “maestro en organo” in 1254 at the University of Salamanca would have been a blend of theoretical understanding, arithmetic, and secular/religious music.

In the Middle Ages, when music in Western Europe was taught only in churches and monasteries, the creation of a chair of music with one professorship at the University of Salamanca in 1254 is revolutionary.

The contributions of the Arabs thinkers whose works on music were translated in al-Ándalus (from Arab to Latin), and whose ideas spread from Spain to Western Europe, leading to the Renaissance and the Enlightenment. They played an important role in the creation of this Chair of Music at the University of Salamanca.

Finally, the “maestro en organo” in modern words could be identified like a “chair of musical acoustics,” because ultimately music is part of the creation of sounds.



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FORUM ACUSTICUM EURONOISE 2025

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