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## **Gerbert of Aurillac (future Pope Sylvester II) and his possible relationship in the diffusion of Chess in the 10th century**



Pope Sylvester II (Gerbert of Aurillac)

by Alejandro Melchor

In the commendable work of Helena M. Gamer "The earliest evidence of Chess in the western literature - The verses of Einsiedeln" (1954), this author placed in the Monastery of Einsiedeln, founded by Otto I, the earliest literary evidence of Chess in the European West (around the year 990). Evidence perfectly coinciding in the first documentary mention we find precisely in "Hispania" (Spain) with the will of Ermengol I, Count of Urgell, in the year 1007 carried out on the occasion of the campaign against Al-Andalus (Muslim area center and south of Spain) of the Catalan counts. However, the author, observing the absence of Saracen terminology in the Alpine verses, was rather in favor of an influence of Byzantine origin rather than Muslim, which in any case could have arrived either by Hispanic or - preferably - Italic way. Reasonings without seems definitive, are certainly very convincing, so it seems that it can be affirmed that Chess appears simultaneously in the Alpine monasteries of the Ottonian dynasty and among the Catalan nobility. Even in the case that the influence came from more than one source, as it could seem natural talking about something like a board game, the coincidence is remarkable. What could be the cause? It would be necessary to go further ...

Anyway previously, Helena Gamer, aware of the possibility of a Muslim transmission, when looking for

Germanic-Hispanic contacts, approached it exclusively from a generic perspective between Muslim and Germanic cultural spheres, and thus she limited herself to recalling contacts prior to the 10<sup>th</sup> century, such as those of Juan de Gorze, ambassador of Otto I in Cordoba in the 950s. Moreover, H. J. Murray in his "A History of chess" (1913) summarizes the philological discussion of his theory: "The evidence derived from the phonetic nomenclature of chess points to the knowledge of the game and its technicalities in parts of Christian Europe outside the Iberian peninsula, certainly at a date before the year 1000 and probably also before 900". And once again, including here the documentary evidence on which others had relied only, he continues: "Contemporary documents establish a knowledge of the game in southern Europe at the beginning of the 11th century, but the philological evidence requires that this knowledge had been initiated at least a century earlier". And from a geographical point of view, it indicates that either the transmission could have taken place in the Arabic schools of education in Spain, or between the daily life by the social exchanges of both communities in the frequent periods of peace agreed upon.

In this way the importance of these relations, through embassies, has never been sufficiently valued, something that has induced to see in the frontier between Islam and Christianity an impassable hermetic line. Pere Balañá reminds us ("L'Islam a Catalunya", 2002) in the year 971 there were five Mozarabic interpreters in the caliphate palace of Cordoba and - the author supposes -, that this situation must also be the other way around in the court of the count of Barcelona. It could almost be affirmed that in one of these embassies the chess would arrive to Catalonia as a gift from the caliphal court, and through, for example, the character that we will deal with next.

In the case of Helena Gamer specifically, this author omits the clear Catalan evidence of the personality that intrinsically allows to link the two earliest appearances of chess in Einsiedeln and Urgell, who is none other than Gerbert of Aurillac, who will be known as Pope with the name of Sylvester II.



between France and Spain

Pyrenees, natural border

This "French" monk (born around 945, "France" doesn't exist), known, as I say, for being the future Pope of the millennium Sylvester II in 999, was studying in his youth in the Collegiate Church of Vic (North Barcelona prov., Spain), under the tutelage of his bishop, Aton, and in the Monastery of Ripoll (Girona prov, Spain) approximately between 967 and 969, invited under the patronage of Count Borrell II. It is believed possible that he traveled to Seville and / or Cordoba, and therefore, he came into contact with Arab science, initiating himself in the study of astronomy and mathematics (he introduced in Christian Europe the decimal system and the number 0) and it is almost certain that there he also knew ... **chess**. After going to Rome on pilgrimage in 970 he settled in the city and a few years later he was the tutor of the Emperors Otto II and Otto III, at that time kings of the so-called Holy Roman-Germanic Empire (the

Ottonian dynasty mentioned above!). And this leads us to a fundamental observation: at the end of the 10<sup>th</sup> century, just when we have to think that the game must have been introduced in the customs of the nobility, we have evidence that **there could have been a contact between Catalans and Ottonians**, and this is precisely the case of our monk. Gerbert had first-hand knowledge of the Catalan nobility at the end of the century and became, as I said the tutor of Otto III on behalf of his father; knowing his taste for logic and mathematics (which, as we have said, he probably learned from the Arabs in his travels to Al-Andalus and later took to Ripoll), it would seem that he was a person especially gifted to appreciate the benefits of the game, even more so in his role as tutor of the heir to the crown. As if this were not enough, we have that precisely Ermengol I of Urgell (**legatee of the first known document on chess in the Iberian Peninsula**, 1007) and son of Borrell II (the patron of Gerbert), although born when the monk had already completed his instruction with Bishop Aton in Vic and Ripoll, traveled twice to Rome (998 and 1001) to meet with the former monk, who at that time was already known as Pope Sylvester II; that is, both leaders not only knew each other, but also knew the existence of chess! both knew of the existence of chess through parallel channels! **So Gerbert was directly related to the first known owner of a chess game in Western Europe** and also to the rectors of the dynasty that promoted the monasteries where the first literary mentions appear. Coincidences? or checkmate?

In fact, the idea is not new, and was already raised, very briefly, in 1985 by the English historian and International Chess Master Richard Eales in his book “Chess: The History of the game” - page 42 -, and in later works by Hillary Svoboda (in “The Chess Queen”) and Betty Mayfield (“Gerbert d’Aurillac and the March of Spain: A Convergence of Cultures”). In this last article it is emphasized that Gerbert’s intention in his stay in Ripoll was none other than the study and translation of important Arabic works that the Monastery kept, mainly of mathematics, but that, as it has been said, he could also have incorporated the use of chess in his later teachings as an exhibition of the sophisticated education nourished in Arabic and Iberian sources (as I indicate, for example, in the tutorial of Otto III))

Moreover, coinciding the same years in which Chess crossed the Pyrenees in search of the Alpine monasteries, another medieval game spread in parallel to ours: it is the **“Rithmomachia”**; so both seem to be closely related. The term “rithmomachia” comes from the Greek “rhythmos” and “machia” which means “battle of numbers”. This abstract and very complex game - similar to those of today’s Othello or Reversi family - which was played on an 8x16-square board, had a detailed arithmetical basis with geometrical progressions. Gerbert - and other monks of the High Middle Ages - considered, as I have shown, that numerology was of the utmost importance, and drew on the richest intellectual resources of his time. He encouraged the study of the “quadrivium”, the four mathematical disciplines of arithmetic, geometry, astronomy and music in the monasteries, which together with the “trivium” (grammar, rhetoric and dialectic), constituted the “seven liberal arts”. The influence of Gerbert and the “quadrivium” undoubtedly laid the foundation for the creation of the “rithmomachia”. This “philosophical” game was often presented in manuscripts on music, abacus and computation, and knowing the restless and scientific personality of our monk, it is almost certain that he also knew it. In fact, and more specifically, the founder of the studies on medieval science in Catalonia, Professor J.M. Millàs i Vallicrosa thinks that our monk owes his introduction in our lands to our monk (so he writes in his main work “Assaig d’història de les idees físiques i matemàtiques a la Catalunya medieval - 1931 -). In those times of morality and religion, the abbots and tutors challenged their imagination and creativity to establish noble and instructive games for the pupils of the monastic schools; the “rithmomachia” was not, thus, an isolated example in this playful stage of the end of the 10<sup>th</sup> century.

In conclusion, I personally find it very delicate to relate the introduction of an idiom, a court custom, to a single person, and therefore as a researcher and chess player, I can only consider the known facts and seek explanations avoiding tautological approaches such as coincidences or coincidences. We have no specific evidence linking Gerbert to chess, that is true, but with the understanding that unlike the game of chance par excellence, dice, chess is a strictly logical game, where luck has little to do and coincidences even less, perhaps it would be appropriate to put aside beliefs, and if the coin flip results in more heads than tails

think - following William of Occam - that the coin is tricked ...

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