BALTIC AMBER IN SIXTEENTH-CENTURY FLORENCE. THE FIRST STEPS TOWARDS A REVIVAL

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Abstract: Baltic amber, the fossilized resin found in the Baltic Sea and around its coastline, had been a source of great interest, to all the civilizations who encountered it, even more so during the Ancient era, and particularly until the fall of the Western Roman Empire, as seen through the establishment of the trade routes known as the Amber Roads. However, due to the series of events, which unfolded in the following centuries, in the space we now refer to as Western Europe, culminating with the Order of the Teutonic Knights' hegemony over the area in which Baltic amber was found, the mineraloid in question lost its status as a highly sought-after gem, in the coming centuries. This phenomenon unfolded to the point where, as far as sixteenth-century Florence was concerned, Baltic amber gradually disappeared, only occurring sporadically, in the form of certain objects or as an essence.
The present paper aims to analyze the causes for the decline of Baltic amber's popularity, the sectors where this fossilized resin could still be observed in the Florentine space (and in what capacity), as well as the steps which led to its revival, at the end of the aforementioned century, paving the way for the phenomenon to continue in the following centuries.
Another significant aspect, which will be outlined, is the manner in which Baltic amber was used, once it became available again in Florence, as a means of understanding the importance of it in the approached timeframe, as well as the subtle symbols and meanings it held.

Keywords: Teutonic Knights, New World, symbols, Medici, amber trade.

Since ancient times, there have been various theories regarding the origin of amber, some based on mythological explanations and others, based on empirical deductions. The primary ancient source for information about this mineraloid, as well as all other natural elements, is *Naturalis Historiae*, written in the first century A.D., by Pliny the Elder (Gaius Plinius Secundus). His text continued to be the main source of information for the following centuries, including the sixteenth century. During this time, two, authors, Georgius Agricola and Camillo Leonardi, also addressed the subject of the natural element in question, in their books, for which they used Pliny's work as a source.

However, in the course of the classical era, amber was highly sought after, in the Italian Peninsula, as the many artefacts from the period prove, as well as the information on the famous ancient trade routes, known as the Amber Routes, after the fall of the Western Roman Empire. Both the trade routes and the use of Baltic amber declined, primarily due to lack of access[1]. This situation developed further, during the medieval era, when the Teutonic Order gained control over the Baltic amber trade, which lasted until the start of the sixteenth century.

Along with the scarcity of Baltic amber in the Italian Peninsula, Florence also gained access to other sources of what was considered at the time to be gems, due to the discovery of the New World, as well as imports from India, as seen through the ample collection of the Medici family.

As such, the current paper aims to portray the role Baltic amber had in the upper Florentine society, during the sixteenth century, from two main perspectives. On one hand,

[1] Cynthia Clark Northrup, (editor), *Encyclopedia of World trade from ancient times to the present,* New York, Routledge, 2015, p. 32.

the place Baltic amber held will be analyzed, in the context of the prolonged shortage of it, while other options in terms of gems appeared. On the other hand, the information, which circulated about it, in terms of genesis, symbolism and usage during the period in question, will also be explored.

To highlight these aspects, a comparison will be made between the way amber was perceived during the classical era and the way it was seen during the course of the sixteenth century. The former represents the beginning of knowledge and trade in terms of amber, although also having reached its apex at the end of Antiquity, while the latter offers a glimpse into the revival of the said mineraloid from both standpoints after a period filled with many events and phenomena.

Despite the myths and legends which surrounded this natural element for millenia, it is currently common knowledge that amber is fossilized pine resin, which formed over a duration of millions of years, and a more specifc age depends on its provenance. According to the geologist, Corina Ionescu, the age of the Baltic variety of amber has been estimated to be circa fifty million years[2].

Although this definition hints at the fact that amber is an organic substance, geologists have attributed to it the term *mineraloid*[3], in contrast to the way amber was perceived before the sciences like Geology, Mineralogy and Gemology were established, the substance in question being refered to as a *gem*, or a precious stone, in the sixteenth century, as one can observe, through Georgius Agricola's book *De Natura Fossilium*[4], and in Camillo Leonardi's *Speculum Lapidum*[5].

This terminology can be remarked even nowadays in certain circumstances, however Ionescu[6] also highlights in her book that, the substance at hand is not a mineral as such[7].

Its appearance is also signifiant, the most widely known nuances ranging from yellow, to russet, red and rarely, green[8]. Another characteristic of this mineraloid is the varying degrees of transparency as well as the possible presence of plants, insects or small animals, which were trapped by the coniferous sap, before the fossilization process began[9].

Pliny the Elder dedicated part of his well-known work, *Naturalis Historiae* (*Natural History*), to discussing amber, in terms of its genesis and provenance, by mentioning the various ideas which circulated during his time, while being certain only about the theory that the mineraloid was formed from "the marrow that flows from a species of pine"[10], which was located in the "islands from the Ocean of the North"[11].

The fact that the ancient author agreed with the notion of amber originating from the sap secreted by coniferous trees, as well as its location in the North is significant. Not only did Pliny identify the nature of amber correctly, despite the lack of any scientific means, compared to the theories of his contemporaries (one such idea coming from Demonstratus, who thought amber was formed from the urine of linx[12]), , but also in contrast to other theories, which circulated on the matter, in the coming centuries. As far as the location was

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[2] Corina Ionescu, *Pietre prețioase, semiprețioase și decorative*, Editura Didactică și Pedagogică, București, 1995. p. 24.
[3] ***, Dictionary of Geology and Mineralogy, second edition, McGraw-Hill, New York, 2003, pp.13; 206.
[4] Georgius Agricola. *De natura fossilium*, New York, s.ed., 1955, p. 76.
[5] Camillus Leonardus, *Mirror of stones*, translated by J. Freeman, Fleet Street, London, 1750,p. 226.
[6] Corina Ionescu, *op.cit.*, p. 24.
[7] *Ibidem*.
[8] *Ibidem*.
[9] Teofil Gridan, *Universul bijuteriilor*, Editura Enciclopedică, București, 2003, p. 145.
[10] Plinius cel Bătrân, *Naturalis Historia Enciclopedia cunoştinţelor din Antichitate, 6 vol,* vol. VI, *Mineralogie și istoria artei*. Iași, Polirom, 2004, p. 223.
[11] *Ibidem*.
[12] *Ibidem*, p. 221.

concerned, he was partially correct as well, seeing as what is now known as the Baltic Sea is located to the north of where he resided.

Amber was also likened to the Sun, particularly due to its yellow variety, one of its names being *electron*[13]. This Greek term was later adopted by the Romans, becoming a symbol, from which magical and spiritual beliefs derived. Another myth, which served as an explanation for amber's genesis was the notion that it came in the form of tears from the Heliades, who mourned their brother, Phaethon[14].

However, these myths were no longer taken into consideration, once Christianity became the dominant faith in the Italian Peninsula. Amber's role in this context became less significant from a spiritual standpoint, compared to other gems.

In the sixteenth century Georgius Agricola, a physician of Saxon origin, published his book, *De natura fossilium*, which focused on all the natural elements known at that time, including amber. His interest in what was then called natural philosophy stemming from his objective to find new potential cures for various ailments, led to him taking the first steps towards modern mineralogy[15]. One of his most used sources regarding gems in general was Pliny the Elder's text, however the Saxon author did not agree with certain aspects of the ancient author's treatise, which led to some significant differences, particularly in terms of information about amber. It is surprising that despite Agricola's innovative methods, he commits serious errors regarding the origin of amber. He concluded that amber is not the resin that comes from coniferous trees but is instead directly from the earth, being a bitumen secreted directly from it[16].

From what information Pliny the Elder spread in Antiquity, aside from its aesthetic aspect, amber also possesses a series of properties that further enhanced its prestige, relating to luck, protection, and especially, healing abilities. Thus, amber became an object that embodies a type of sacredness and even a capacity for healing against ailments such as tonsillitis[17], delirium, fever, and ailments of the ears, eyes, or stomach[18]. In each circumstance, there was a specific method of administering the remedy with amber. This information was also passed down until the sixteenth century and beyond, along with Pliny's work, as well as Agricola's aforementioned book[19].

Moreover, amber also appears as an ingredient for making several types of remedies in *Ricettario fiorentino* (*The Florentine Medical Recipe Book*), where it was prescribed either in the form of pieces, or melted, alongside other ingredients, either of plant, mineral, metal or animal origin[20].

In terms of economic aspects, Baltic amber, known for millennia, was gradually spread by cultures settled around the Baltic Sea through trade exchanges. This is attested by various archaeological remains discovered in the European space, which upon being dated confirm the existence of an interest for this mineraloid even from such distant eras. Considering that beyond amber's appearance, upon which a series of myths and legends were born, it also constituted a luxury item, not within everyone's reach, as Pliny the Elder noted in his famous work[21], attesting to the fact that amber was appreciated for a long time. This aspect has been highlighted through archaeological discoveries, confirming the presence of

[13] Theophrastes, *On stones*, tr. Earley R. Caley, John F. C. Richards, The Ohio State University, Columbus, 1956, p. 112.
[14] Plinius cel Bătrân, *op.cit.*, p. 220.
[15] Georgius Agricola, *op.cit.*, p.IX.
[16] *Ibidem*, p. 72.
[17] Plinius cel Bătrân, *op.cit.*, p. 220.
[18] *Ibidem*.
[19] Georgius Agricola, *op.cit.*, 77.
[20] ***, *Ricettario fiorentino*, Florence, Giunti, 1573, pp. 81, 88.
[21] Plinius cel Bătrân, *op.cit.*, p. 220.

Baltic amber especially from the 8th century B.C. in Mediterranean space[22]. For the most part, archaeological discoveries were limited to beads. However, there were also exceptions, such as objects made entirely of amber. One such example is the cup found in Howe, Great Britain, dated around 3200 B.C.[23], belonging to Celtic culture. Other discoveries, referring to younger artifacts, have been found in Etruscan settlements from the 6th century BC, like the pendant representing a female deity[24], also made entirely of amber. Such examples confirm the gradual spread, over a considerable duration, of amber, starting from northern cultures, continuing southwest and further south.

The apogee of amber's popularity represented the formation of a trade network known as the Amber Roads. This primarily served to supply the Roman Empire with the highly sought-after mineraloid, peaking in the 1st century A.D., as reported by Pliny the Elder[25]. He also mentions that Emperor Nero, imported huge quantities of amber using it for frivolous purposes such as weapons and nets used for a single day in gladiatorial games[26], among other things, precisely to demonstrate the political power and wealth of the Empire, as per the Emperor's perspective.

This phenomenon was gradually disrupted by a series of events that affected the attention amber received at that time. First, as Christianity spread and became the predominant cult, pre-Christian cults were gradually pushed aside, which also affected the manner in which amber was perceived. The aspect becomes even more evident when compared to the gems mentioned in the Bible, in Exodus 39, concerning Aaron's breastplate, where the fossilized resin was not mentioned. Secondly, compared to the pearl, which is a form of precious organic material[27] as well, that became the symbol of the Virgin Mary, representing not only the stage of chastity but also motherhood[28], one can again observe amber's diminished importance.

From this perspective amber, especially that of inferior quality, sometimes took the place of incense, being burned to emit a coniferous fragrance, while in other cases it was used for making Christian rosaries, being a softer material (about 2-2,5 on the Mohs scale[29]), which made carving beads out of it a much easier process.

Another factor that lessened the interest in amber, generally in the Italian peninsula and especially in the area targeted in this study, was the fact that the Amber Roads ceased to be used after the fall of the Western Roman Empire, with its terrestrial routes returning to use only towards the end of the 17th century[30].

In the Middle Ages due to the rule of the Teutonic Knights Order the variety of Baltic amber that was sought after most of all, was the white and opaque one. The reason behind this choice stemmed from the mass production of rosaries, according to Rosa Hunger. [31].

However, access to amber even in this form proved to be challenging for centuries. In fact, in the 14th century, a market for amber rosaries began to exist beyond the northern

[22] Faya Causey, *Amber and the Ancient World*, Los Angeles, s.ed., 2012, p. 91.
[23] https://hovecivicsociety.org/looking-hove/history-hove/archaeology/, accessed on 09.15.2024.
[24] Causey, Faya; *op.cit.*, p. 44.
[25] Plinius cel Bătrân, *op.cit.*, p. 223.
[26] *Ibidem*.
[27] Mircea-Dragomir Andrei; Heinz Karl; *Pietre prețioase, fine, ornamentale, perle*, Bucharest, Ipunct, 1999, p. 6.
[28] Serenella Sessin, *Gems in Renaissance Material Culture*; University of London, London, 2014, p. 15.
[29] Mircea-Dragomir Andrei; Heinz Karl, *op.cit.*, p. 123.
[30] Cynthia Clark Northrup, (editor), *op.cit.*, 32.
[31] Rosa Hunger, *The magic of amber*; Boston, Chilton Book Company, 1979, p. 2.

European territories, albeit limited, due to the Teutonic Knights Order which held a monopoly on this type of trade[32].

The Order maintained strict control to the point where even the simple possession of a piece of raw amber was punished with a fine, and in the case of possessing multiple pieces of the mineraloid, the punishment could lead to death by whipping, according to the measures taken by the Knights beginning with the year 1394. This situation complicated the lives of those in Prussia, who legally had the right to possess and gather it from the beach or fish for the fossilized resin, prior to the aforementioned restrictions[33]. As a result, Florence as well as the southern part of the European continent continued to be deprived of Baltic amber for the most part. Additionally, there was a law in Italian space that completely prohibited the wearing of amber until the late 15th century after which it was only partially lifted[34].

Another significant aspect is that with the discovery of the New World in 1492, new sources of supply regarding gems appeared. This was attested by the Franciscan monk Bernardino de Sahagún in his work, *Codice Fiorentino,* which was sent to Florence at the end of the sixteenth century. As a result, given the context of the difficult acquisition of amber as well as the offer of new goods from the newly discovered territories, the popularity of the mineraloid in question continued to be affected.

Even the famous Florentine jeweller, Benvenuto Cellini, mentions in his autobiography that as far as he was concerned there are only four stones worthy to be called "precious": diamond, ruby, sapphire, and emerald[35]; a view which is maintained nowadays as well[36]. He does not mention amber at all in his work, not even as a rosary, which shows that even in this guild, amber's importance had substantially decreased.

Another conflict that stopped the mass distribution of these amber rosaries was the Protestant Reformation. Given the animosity between Catholics and Lutherans, who were the manufacturers of these votive objects, the merchants from the latter faith opted to redirect their merchandise towards Muslims, who also required prayer beads[37]. At the start of the Reformation period, even Luther used the rosary, a practice that he and other devotees of the new faith later rejected, and today the rosary no longer exists in the ritual of those belonging to Protestant denominations[38].

Despite the fact that during the most part of the sixteenth century, Florence did not have access to amber in abundance yet, a new merchant network appeared which undermined traditional guilds, leading to a more open trading system, which connected France to the Baltic Sea and also made Antwerp the amber storehouse for the entire European continent[39].

In contrast, both Rachel King and Adrian Christ that during the sixteenth century amber rosaries were sold in great quantities in the Italian Peninsula[40], however no tangible proof of this has been found, seeing as no such artefacts have remained from Florence and research in the Florentine state archives has yielded very little results in this sense. However, it is possible that such objects would have not been available to all Italian city-states in equal

[32] Christ, Adrian; *The Baltic Amber Trade, c. 1500-1800: The Effects and Ramifications of a Global Counterflow Commodity*, Alberta, s.ed. 2018, p. 22.
[33] *Ibidem*.
[34] King, Rachel; „The beads with which we pray are made from it: ambers in Early Modern Italy*"*, în Wietse de Boer și Christine de Göttler (editori), *Religion and the senses in Early Modern Europe*, Boston, Brill, 2013, p. 160.
[35] Benvenuto Cellini, *Autobiography*, New York, Penguin Classics, 1910, p. 276.
[36] Mircea-Dragomir Andrei; Heinz Karl, *op.cit.*, p. 6.
[37] Adrian Christ, *op. cit.*, p. 36.
[38] *Ibidem*, p. 155.
[39] Adrian Christ, *op. cit.*, p. 62.
[40] *Ibidem*, p. 30.

measure, as well as their destruction over time due to amber's friability. Moreover, the lack of archival documents on the matter at hand could also have various explanations.

Upon consulting the Medici family's remaining documents, from the Florentine State Achieves, it is revealed that even in this context, the presence of amber is very scarce, whether it was due to lack of access or a matter of choice. There is one mention regarding an amber rosary, received by Eleonora of Toledo, who appears to have been the only one in the Medici family to have expressed an interest in such an object[41]. Further consulting the above-mentioned archives a predilection for amber in the form of perfume is observed, which was specifically used to create amber-scented gloves, as was the case with those received by Cosimo I de' Medici from Spain, according to his correspondence with Alessandro Giovanni di Pierantonio Bandini in 1539, despite the tense climate of that time[42].

The rosary, as mentioned by Rachel King, is a complex object that combines spiritual dimensions with luxury due to the material from which it was made[43]. Beyond the mere aspect of luxury, regarding amber there is a certain connection which could be described as intimate, as King also calls it, due to the natural properties of amber. Even in the form of a rosary seeing as it is handled during prayer, it emits a coniferous scent, somewhat symbolizing that the person's prayer during the moment of devotion has been heard[44].

According to King, by the end of the sixteenth century within the treasury of the Medici family from Florence an "amber birdcage and a little model cannon"[45] were added.

Also, an inventory list from 1589 mentions a chandelier as well as a number of white Baltic amber statuettes, depicting princes and princesses from the Brandenburg court[46], aspect which could hint at a gift with political connotations.

Overall, it may be said that despite the changes which occurred after the fall of the Western Roman Empire all the way until the sixteenth century, perspectives regarding amber as well as its role underwent certain modifications.

As far as amber's genesis was concerned, although during the ancient period myths played a key role in explaining the process through which the natural element in question was formed. Only Pliny the Elder emitted a theory which matched reality, while during the sixteenth century mythology ceased to draw much attention, although there were still incorrect theories, as one could observe, for example, the information supplied by Georgius Agricola.

This aspect also affected the symbols the mineraloid carried, seeing as it was no longer directly associated with a deity and legendary figures, but it became the means from which votive objects were made especially in the form of rosaries, that served the individual to get closer to God, as seen in the case of Eleonora of Toledo, who owned such a strand. The use of amber in order to manufacture beads has been a constant practice, regardless of their intended purpose.

Then, at the end of the sixteenth century and the beginning of the seventeenth century larger objects which contained Baltic amber in various quantities also became part of the Medicean inventory from Florence, most of which were also for religious purposes.

In terms of usage, the Roman Empire (and later on especially the Western Roman Empire) enjoyed a great amount of Baltic amber in various forms, from adornments, to

[41] The Medici Archive Project Online Platform, Doc ID: 23891, vol. 1170a, 1545, f. 595.
[42] The Medici Archive Project Online Platform, Doc ID: 20011, vol. 2, 1539, f. 261.
[43] Rachel King, *op.cit*., p. 171.
[44] *Ibidem*.
[45] Rachel King, *op. cit.*, p. 164.
[46] Marilena, Mosco; Casazza, Ornella, *The Museo degli Argenti. Collections and collectors*, Florența, Giunti, 2004, p. 99.

objects and even raw pieces (for burning), but after the fall of the Western Roman Empire, the mineraloid became increasingly sporadic in the Italian Peninsula.

In sixteenth century Florence adornments and non-religious objects made from amber were practically non-existent, and other gems took their place for the same purposes. Aside from rosaries and scented gloves, amber was used as an ingredient for various remedies.

As far as the Amber Roads and the amber trade were concerned, while they flourished during the age of the Roman Empire, at the end of the fifth century A.D., after the trade routes were no longer used, a graduate shortage of amber ensued, leading up to the above-mentioned general state of lack in the sixteenth century, as per documents and artifacts.

In this context other gems gained notoriety, especially due to the access to goods from other locations, particularly the New World and India as well as the inclination of families like the Medici, towards exotic and luxurious possessions.

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