



AMBER IN THE HISTORY OF MEDICINE

PROCEEDINGS OF THE INTERNATIONAL CONFERENCE

**MINISTRY OF CULTURE OF KALININGRAD OBLAST
KALININGRAD REGIONAL AMBER MUSEUM**

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IN THE HISTORY OF MEDICINE**

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LAURA KREIGERE-LIEPIŅA

AMBER IN THE POEM

“DE RANA ET LACERTA, SUCCINO PRUSSIACO INSITIS”

(ABOUT A FROG AND A LIZARD

EMBEDDED IN PRUSSIAN AMBER)

BY DANIEL HERMANN (1543—1601), A HUMANIST FROM RIGA

Poet Daniel Hermann (1543—1601) born in Prussia, was a humanist and a diplomat of the 16th century. His poem “About a Frog and a Lizard Embedded in Prussian Amber” was published in Riga in 1600. The poem is one of the earliest editions in Riga related to natural sciences.

The main “characters” of the poem are a frog and a lizard entrapped in Prussian amber. The poet reveals the 16th century scientific concept of amber originating from liquid bitumen, and considers certain curative properties of amber.

Key words: humanism, Neo-Latin poetry, natural philosophy, amber, amber inclusions, amber in medicine.

The Renaissance era made a considerable impact on cultural and ecclesiastical activities in many European countries. Humanists, representatives of the noble and creative sector of society were elaborating new ideals in the sphere of culture in the Renaissance period. Humanism (from Latin *humanismus* — “humane”) is the notion that was developing in Italy in the 14th and 15th centuries. Universities in Italy were in search of new truths and revolutionary discoveries. The legacy of ancient culture was conquering Europe at a new historical turn in a different dimension. In contrast to the medieval dogmatism, humanism was open to human pursuits of considering both the external and inner world of an individual. Pieces of ancient literature were combined with an individual style of an author-humanist. Educated intellectuals of schools of humanism kept disseminating its ideas in the cultural sphere in the 15th and 16th centuries — in Germany, England, Poland, France, and later in the other countries of Europe. There are different explanations of the no-

tions of *humanism* and *humanist*. Describing the literature of humanists in Poland, a Polish scholar Janusz Gruchała (1949—2011) wrote: “Humanism of the Renaissance era in a narrow sense is understood as a study (a discipline) of philology, which through an interpretation of ancient texts and academic education fosters the dissemination and promotion of humanistic ideas” (Gruchała, 1997: 101).

In the 16th century, humanism was gradually coming to Riga. Humanists’ tractates and ideas of humanism used to be brought to Livonia from voyages, from well-known European universities or even from royal courts by representatives of noble and educated groups. Humanist texts entering Riga were published abroad and mostly written in Latin or German.

It was only in 1588 that the first printing press was set up in Riga, thanks to a Riga diplomat and syndic David Hilchen (1561—1610), where Nicolaus Mollyn (ca 1550/1555—1625), was invited from Antwerp, to work there (Ramm-Helmsing von, 1936: 167).

When the printing shop was opened, poets from Riga got the opportunity to print their works rich in ideas of humanism. The late 16th century saw quite a narrow readership, and the language of the audience's literary communication was Latin. The ideas of humanism received response not only at educational institutions, but also in Riga town hall, and even in churches. Riga's humanists held prominent positions at government bodies, they were among heads of educational institutions and gained fame in society. Essay-dedications (essays for festivities or for a particular event in verse or prose — *Gelegenheitsschriften*) were a popular way of expressing literary reflections in the 16th century humanists' community. Dedications used to be recited, published, and replicated with a view to praising prominent persons, friends, or even nationwide events. Works by humanists from Riga have been little studied so far, which gives an opportunity to philologists and scholars in other spheres to discover new knowledge about humanistic literature in Riga in the 16th century (Fig. 1).

Poet Daniel Hermann (1543—1601) belongs to the group of 16th century Riga humanists. His later works represent historical events of the Livonian war and life in Livonia and they reveal the cultural environment of 16th century Riga. The poet's profound learning and extraordinary mastery of the Latin language enabled him to make a considerable contribution to the literary heritage of Riga's humanists. Arendt Buchholtz (1857—1938), a historian of book printing, emphasises the poet's significant role in the humanistic community of 16th century Riga (Buchholtz, 1890: 59).

Hermann's poem about amber, devoted to the issues of natural science, is one of the first in the Riga editions of that type and the only work on amber published in Riga in the 16th century. The poem has neither been translated into the Latvian language to date, nor has it been considered in a wider scientific context.

Hermann's biography was already studied as early as in the 17th century, yet his poetry speaks best of his life. Most of the biographical information is given in the article by Theodor Schiemann (1847—1921) "Daniel Hermann. Livonian humanist" (*Daniel Hermann. Ein livländischer Humanist*) (Schiemann, 1886).



Fig. 1. Riga's skyline in a wood-cut engraving printed at Nicolaus Mollyn's printing-house in 1591. Latvian National Library, Department of rare books and manuscripts, R BS 727

Hermann was born in 1543 in the family of Bürgermeister Andreas Hermann in the town of Neidenburg in East Prussia (presently — the town of Nidzica in Poland). From the biographical data, the conclusion can be drawn that the poet loved travelling and was open to adventures. However, all his life he remained true to his native land, Prussia, glorifying it in his poetry and calling himself a "Borussian" (Fig. 2).

In his youth, Hermann studied in Strasbourg at an educational institution which was headed by Johann Sturm (1507—1589). He was one of the outstanding students of the celebrated gymnasium — a highly prestigious institution of those days where most talented young people used to study. There, as was typical of the schools of humanism of the time, they studied classical languages, especially Latin which was necessary for effective communication in the intellectual milieu and for diplomatic correspondence (Schiemann, 1886: 53).

Educated humanists were proficient in several languages, they were eminent grammarians, and were knowledgeable in law, astronomy and natural sciences. Gaining "encyclopedic knowledge" was considered the highest aim of education.

Hermann attended the most well known universities of that time in Germany and Prussia, where he acquired the skills of Latin poetry, kept mastering languages, and studied philosophy and law.

In Wittenberg, he also became interested in natural sciences. Hermann attended Koenigsberg (today — Kaliningrad) University as well (Recke, 1827—1832: 256), and for some time he studied at Basel where he composed several dedications to eminent townspeople (Schiemann, 1886: 57).

On completing his studies, Hermann started developing his career in the military and diplomatic spheres. Under the Viennese Emperor Maximilian II (1527—1576) he was entrusted with performing the duties of a record clerk. After the Emperor's death, Hermann went to Danzig (presently — Gdansk). He was appointed a secretary at the Town hall, and was in charge of diplomatic correspondence with Stefan

Batory, King of Poland (1533—1586). Soon he became one of the secretaries to the King and joined him in military campaigns (Recke, Napiersky, 1827—1832: 257).

Hermann spent the last years of his life in Livonia. In an epitaph composed by him, the poet admitted that he was living in Livonia because Stefan Batory had sent him there: *Me quoque rex inter Livones vivere jussit* (Hermann, 1614—1615: [207]). Hermann arrived there in Riga in 1582, shortly before Stefan Batory's arrival. In Riga, he had kept looking after the interests of the Polish court until he abandoned civil service and dedicated himself to poetry (Schiemann, 1886: 70).



Fig. 2. 17th century Prussia (ca. 1630). Neidenburg and Koenigsberg on the map
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Another reason why Hermann became a citizen of Riga was his marriage to a widow Ursula Kröger from whom he had rented accommodation. Hermann fell in love with Ursula, and a month later he asked for permission from the Danzig town council to settle in Riga and to become a Polish diplomat (Schiemann, 1886: 69).

Buchholtz considers Hermann a patriot of Livonia giving as evidence his works devoted to Livonia and Riga (Buchholtz, 1890: 59).

Abundant data on the poet's life can be found in a unique collection of poems *Poemata (Poems)* published by Hermann's widow. The collection was printed in a printing shop in Riga in 1614. A considerable part of the poems is put together in a chronological order. The first part, *Academica*, comprises the poems composed in his student days — dedications to professors and friends, and to educational institutions. The second book *Aulica* represents the poetry of the time of the poet's service under the Viennese Emperor.

The third part *Bellica et miscellanea* is comprised of the poems written during the Livonian war. It includes a comprehensive poem *Stephaneis (Stefaneida)* dedicated to King Stefan Batory, in which his military campaigns and victories are praised (Schiemann, 1886: 70).

This part, also comprises pieces of writing on various subjects, including the poem on amber that was first published in Poland, and later printed in Riga.

The poem *DE RANA ET LACERTA, SUCCINO PRUSSIACO INSITIS (About a Frog and a Lizard Embedded in Prussian Amber)* was first published in Krakow in 1583, and immediately received a widespread response not only in Poland but in the neighboring countries too. It also became known and gained recognition even in Rome. The first edition of the poem was dedicated to Zsigmond Batory (1572—1613), a nephew to the King of Poland, Stefan Batory.

Owing to a German physician and a natural scientist Lorenz Scholz (1552—1599), the second edition of the poem was included in the fourth volume of *Consilia et epistolae medicinales (Recommendations and letters on medicine)* by Johann Crato von Crafftheim (1519—1585) along with the work by Andreas Aurifaber (1513—1559), a court physician of Duke

Albert of Prussia (1490—1568), entitled “History of Amber” (*Succini Historia*). The works included in the edition are related thematically and given in Latin (*Succini Historia* is presented in the Latin version). They center on amber and its application in medicine (Fig. 3). Hermann personally knew Crato von Crafftheim, a well-known scholar of his time. Crato was a physician to Emperor Maximilian II and a supporter of the Reformation (Schiemann, 1886: 59).

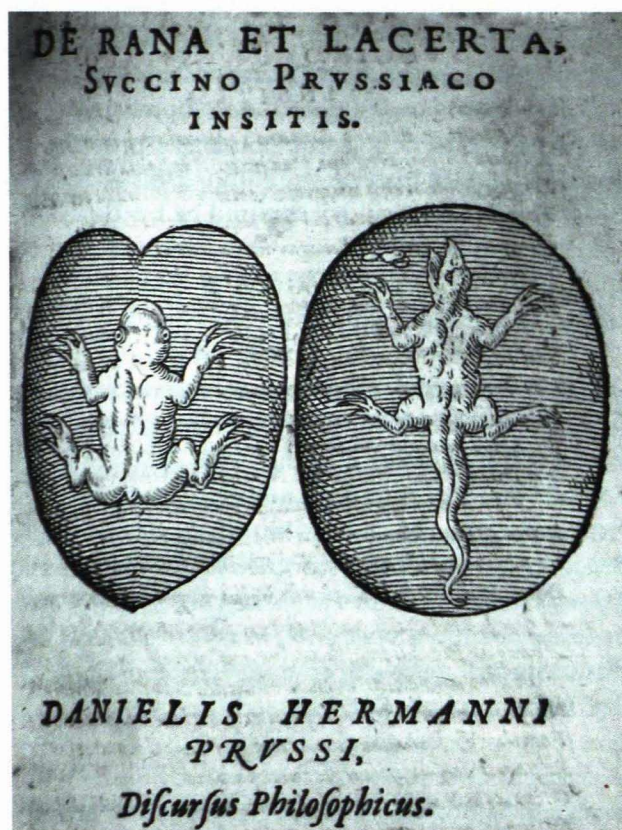


Fig. 3. Second edition of the poem of 1593
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In 1600, the poem came out for the third time at the publishing house of printer Nikolaus Mollyn in Riga. When comparing the Krakow, Frankfurt and Riga editions, it becomes clear that the prints of a frog and a lizard, executed in the technique of wood-cut engraving, are identical in all the issues. This suggests that Hermann might have brought the block with him and given it to the printers, although it is not known for certain.

Later (in 1731), the poem was published again in the collection of historical works on the history of Prussia *Acta Borussica (Acts of Prussia)*. This version is lacking marginal notes and prints with the images of animals which were present in the earlier printed issues (Recke, Napiersky, 1827—1832: 258).

The poem and its separate pieces were also published several more times in the 20th century.

During his studies at the gymnasium in Strasbourg, Hermann developed friendly relations with Jan Zamojski (1542—1605), who later was Chancellor of Poland. In the Riga edition of the poem, there was a dedication to Zamojski. A comprehensive introduction addressed to the humanists provides us with biographical data on the author himself and the historical and political background of his time. The introduction-dedication contains information on the poem's edition and references to Roman authors whose poetry had an impact on Hermann's work.

Friendly relationships with Grand-Chancellor Zamojski encouraged the poet to compose a piece in honor of the opening of the Zamojski Academy (*Akademia Zamojska*). Together with David Hilchen, a syndic of the town of Riga, Hermann congratulated Zamojski on the establishment of the Academy dedicating a poem *De Martis et Musis* ("On Victories and Muses") to him (Ramm-Helmsing von, 1936: 172).

The poem *De rana et lacerta* [...] gained fame due to the influence of Zamojski (Gadebusch, 1777: 53). Hermann himself confirmed it in the introduction to the poem in the Riga edition.

It is clear that Hermann's poem made J. Zamojski very happy. He even called the poet "another Lucretius" (99—55 BC) (Hermann, 1600: [4]). Indeed, the poem contains several instances of philosophic conclusions by the Greek philosopher Epicurus (341—270 BC) which, in their turn, are reflected in the natural-philosophic poem by the Roman author Titus Lucretius Carus ... *De rerum natura* ("On the Nature of Things").

The metaphorical language of the poem and the information contained in it made it possible to draw the conclusions that Hermann was writing for a narrow group of 16th century society. The poem is made up of a hexameter and composed in Latin of the

Classic period. In the manner typical of poets of the Renaissance era, he weaves into the poem elements of classical mythology and refers to the works of the classics.

The piece belongs to the genre of didactic poems. It is distinguished by its impressive scope, the presence of triumphant expressions, and its fine and sophisticated language. Adhering to the tradition of humanistic poetry, the poet imitates the style of the classics — the poem contains many instances of tropes, Grecisms and figures of speech. The language is rich in metaphorical comparisons; the splendor of the subject is emphasized by an elevated style — by numerous metaphoric expressions and visual epithets.

In accordance with the classic tradition, the poet addresses a request for inspiration to a deity in the introductory lines of the piece. He chooses Apollo — the patron of poetry and art.

Apollo, or Phoebus, is often appealed to as an inspirational figure in poetry and is called a patron of the poetry of humanists (Wiegand, 1997: 200). Consequently, the choice of Apollo was not accidental. It is remarkable that along with patronising art, the Greek and Roman god Apollo is known as a patron of medicine and science, and also as a deity of the sun and light. His nickname Phoebus (Greek *φοῖβος*) means "light", "lucid." Amber is known to be often called the "sun stone" due to its aurulent-light colour. It is quite possible that the poet skillfully includes this allegory in the composition of the poem.

Prominent in the poem is the role of a frog and a lizard, embedded in Prussian amber. The author dedicates to them figurative epithets, metaphors and occasionally true, frequently comic compliments. He recollects ancient authors Aristophanes and Homer, who at some point also glorified frogs .

The aim of a didactic poem — to show an object "from all sides" — was fully attained. The theme of amber and amber inclusions gives rise to different philosophical questions. The poet praises amber as a wonder of nature, a creation of God, and considers it in terms of natural sciences.

Hermann's poem focuses on the issues of the origin and nature of amber as viewed from the perspective of 16th century science. Epicurus's philo-

sophical ideas and Lucretius’s conclusions in the poem alongside with the author’s reflections about the nature of things make it possible to consider the poem as a philosophical discourse. In some editions of the poem, the following is written on the front page: *Discursus Philosophicus* (Philosophical discourse).

Why does Daniel Hermann approach the issue of the origin of amber?

The aspects of the origin of amber were of interest to the 16th century scholars and educated men at large. Hermann studied natural sciences and took an interest in geology, and mineralogy which were both expressed in the poem.

The poetic work reflects 16th century hypotheses on the genesis of amber. The author himself does not seem to have made an in-depth study of the subject. An analysis of the poem fragments leads to the conclusion that one of the main sources of information on the origin of amber is the work *De Natura Fossilium* (*On the nature of fossils*) by Georgius Agricola (1494—1555), a 16th century natural scientist, philologist and the “father of mineralogy.” Agricola’s theory of amber origins was principal among scientific concepts of the 16th and 17th centuries. Its adherents were the many contemporary scholars who opposed the theory of amber originating from tree resin. Among them was Andreas Aurifaber who popularized Agricola’s ideas on amber origins in his work *Succini Historia* which is considered the first treatise dedicated to amber (Aurifaber, 1572: cap. III).

Aurifaber was a court physician to Duke Albert of Prussia and Professor of Medicine at Königsberg University (Polyakova, 2013: 84). Hermann is known to have attended Königsberg University in his early years, and then he had the opportunity to become acquainted with Aurifaber’s work, which made a considerable impact on the poet’s views of Prussian amber. Aurifaber considered amber to be mountain wax but not resin. Agricola and Aurifaber’s ideas of amber’s originating from bitumen, or oil, appealed to Hermann.

In his work *Succini Historia*, Aurifaber made mention of Paul Jaski (1495—1564) who used to gather, treat and sell amber (Aurifaber, 1572: cap. III) and who was said to be an expert in it. It was the Jaskis family from Danzig who possessed exclusive trading rights for amber. Hermann also referred to Paul Jaski in whose collection he had supposedly seen valuable inclusions — a frog and a lizard in amber. It seems quite possible that those amber pieces encouraged the poet to compose the poem.

Poetry to Hermann serves as a way to show his love for his native land — Prussia. I believe that writing about the riches of Prussian nature, about Prussian amber was not only interesting but also honorary for the poet himself.

The issue of amber origins

Hermann, like all the 16th century humanists, knew very well the opinions of the classics. In classical antiquity, theories of amber origin were also varied — mythical, imaginary, unprovable and true to life. A Roman author Pliny the Elder (*Plinius Secundus*, 23—79) considered amber in his monumental encyclopedia “Natural History” (*Naturalis Historia*). According to Pliny, amber is nothing but hardened resin. He even gave details about the pine trees producing resin, and about the places where amber originated (Pliny, 1906: Lib. 37., cap. XIII).

Although Hermann is familiar with versions of ancient authors, the issue of the origin of amber, in his view, is more serious. He does not want to speak “about the sap of trees” and to recite ancient myths and “similar nonsense.” The poet promises to find the true answer in the entrails of the earth (Hermann, 1600: [12]):

Hunc ego non dicam manare ex arbore succum,
Aut maris e spuma, Heliadum lachrymisue gelatis,
Eque aliis causis multorum somnia vatam,
Quas passim memorant: maiori indagine digna
Res ea, me cogit genitalis viscera terrae
Rimari, abstrusas propiusque, inquirere causas.

Aurifaber in his work *Succini Historia* writes that the majority of the 16th century pundits followed the Roman authors and Pliny, according to whom amber was resin (Aurifaber, 1572: cap. VI). However, this opinion was opposed by many since it could not be proved in the 16th century. The age of new discoveries did not permit the acceptance of old theories and urged the development of new approaches to the origin of amber. Therefore, scientific inquiries resulted in the emergence of a new concept of a nonorganic origin of amber, which was supported by Agricola, Aurifaber, Hermann and other 16th century scholars.

Hermann was convincing in describing the origin of amber from oil, or bitumen: "Amber which is found on the shores of Prussia is nothing else but liquid bitumen. In fire, it spreads a pleasant odour. When it gets to the sea or ice-cold water, this juice hardens and turns into amber" (Hermann, 1600: [13]):

Sic quoque Prussiacis quae multa leguntur in oris
Succina, credibile est fluidum illa fuisse bitumen,
Tunc ubi materies stillans ab origine prima,
Igne tepebat adhuc et succo fluxit odoro;
Quem simul ac mare susceperit, gelida ocyus unda
In lapidem et concretam vertit frigore massam

The author calls the amber-making substance *bitumen* (pitch, oil, and bitumen). Agricola in his book *De Natura Fossilium* explains what liquid bitumen is. This bitumen had different names in ancient times, and the colour of the liquid varied depending on the provenance or place of outflow (spread). The Babylonians called this liquid *naphtha*, and the inhabitants of Samos — *maltha*. The name *bitumen* also stands for amber (Latin *succinum*) (Agricola, 1558: cap. IV, 222) (Fig. 4).

In his tractates *De natura fossilium* and *De re metallica libri XII*, Agricola speaks about varieties of bitumen which form amber. It matches the description of bitumen and amber in Hermann's work. He quite often uses the lexical item *naphtha* when speaking about the substance from which amber is formed: "Initially thick, hot oil leaks out into the sea from underground sources and solidifies in the ice-cold waves" (Hermann, 1600: [14]).

Nunc si displiceat terra aut e monte cavato,
Littoribus vicino, tale exire bitumen,
Inde mari iniectum solida indurescere massa,
Ad fundum maris arcanas bullire scatebras
Pone, vel aequoreis sub rupibus affere easdem,
Arcano pinguem intus Naphtam agitare calore:
Ipsis quae tandem ebullit protrusa scatebris,
Et protrusa statim gelidis durescit ab undis.

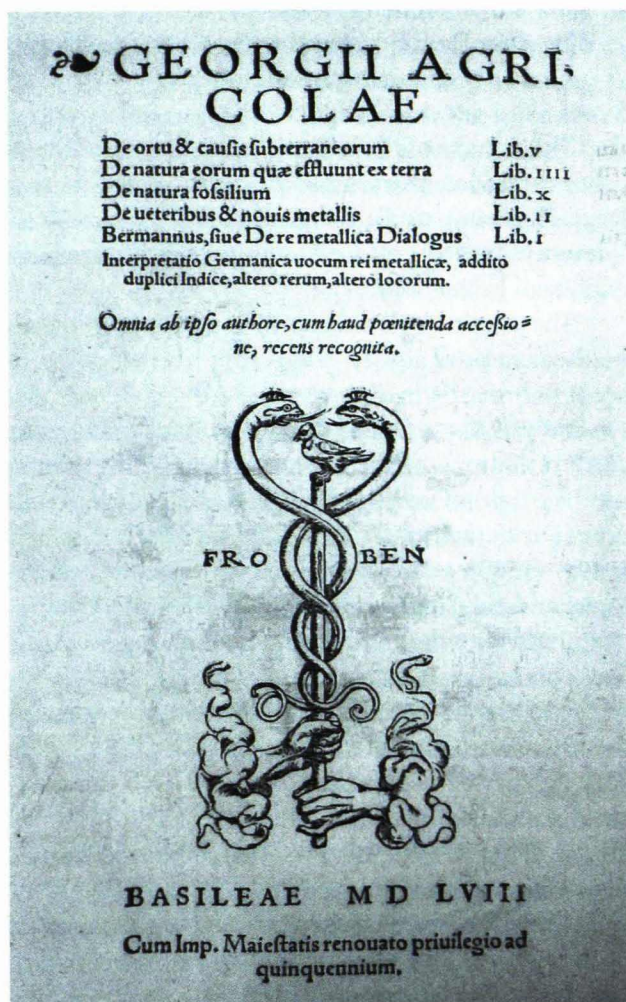


Fig. 4. Collection of Agricola's tractates, edition of 1558
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Hermann's lines illustrate Agricola's opinion that amber sprouts in the interior of the earth from bitumens which later leak out into the bosom of the sea. Once it gets into the ice-cold waves, bitumen, or oil, turns into amber or agate (Agricola, 1556: lib.II, 24).

As noted above, this version of the origin of amber was accepted by Aurifaber too. He stated that amber was a kind of bitumen or mountain wax, but not a tree resin. Amber originates in the interior of the earth or in the sea, and later it is thrown out onto the shore (Aurifaber, 1572: cap. III).

A frog and a lizard — inclusions in amber

Amber inclusions have always been a rare thing. Predominant are inclusions in the form of pieces of leaves, bark, fir-needles etc. Inclusions of animal origin are usually represented by flies, bees and different insects inside. Hermann calls these animals variously: *bestiola*, *volatilia*, *reptilia*, *animalcula*. Amber inclusions of a lizard and a frog are a wonder of nature. The poet glorifies them with true delight.

The description of a frog caught in amber (*Descriptio Ranae Succino insitae*) testifies to the poet's excellent mastery of the language of Latin poetry. “The frog is still with its flawless body, green as if it has just been born. It has stretched its legs and is staring threateningly, and is trying to jump up. Unfortunately, the solidified amber stuff prevents it from getting out” (Hermann, 1600: [11]):

Aspicis, ut stet adhuc illaeso corpore Rana?
Rana gerens viridem ceu nuper nata colorem.
Ut pedibus distenta est? ut torvumque tuetur
Lumine distorto? Et saltum velut usque minatur,
Et quasi contendit patulas exire sub auras.
Abnegat Electri massa indurata regressum

One can assume that the frog embedded in amber has been perfectly preserved. The poet imparts vigour to the inclusion, describing the green colour of the frog, depicting its look and an attempt to jump. The author calls amber in the same way as the ancient Greeks did — *Electrum*.

The description of the lizard (*Descriptio Lacertae Succino insitae*) is similar: “Needlessly the trembling lizard is stretching its little muscles right and left, and its tail can be seen, curved like that of a snake, scales on the back, small claws and the half open mouth that was broken in the battle with death. When dy-

ing, it rattled repeatedly before breathing its last gasp, leaving trails of blood [in amber] like from its ebbing life” (Hermann, 1600: [11]):

Frusto alio exiguos tremebunda Lacerta lacertos
Nequicquam extendit, sinuatque volumina caudae
Tortilis: et squamae apparent per terga minutae:
Et parvi unguiculi: deformes pandit hiatus
Os, in agone olim luctaque in mortis apertum,
Quando anima evomuit crebris singultibus actam:
Sanguinis hinc sparsi vestigia viva supersunt.

Hermann represents the scene of the lizard's agony. He gives a detailed description of the animal's tail, scales, small claws and a half-open mouth. A particular emphasis is given on the fact that drops of the blood of the dying lizard remained in amber. The metaphor *evomuit anima* shows the poet's skill in handling different lexical items and figures in the Latin language.

In the opening lines, the poet states that those inclusions were particular monuments to the frog and the lizard. Both pieces of amber belonged to the Jaskis family in Danzig (Hermann, 1600: [11]):

Insitam in Electro Ranam, tremulamque Lacertam,
(Quae Jasqus Gedani monimenta insignia servat,
Digna Monarcha aliquo, et totum memoranda per orbem)...

The poet writes that “Paul Jaski keeps these treasures — a frog and a trembling lizard embedded in amber, glorified all over the world, [possessions] suitable for a monarch.” Since such specimens were considered to be a curiosity, it is hardly surprising that they might have been kept in the monarch's collection. However, this cannot be asserted without additional investigations. It is a known fact that Emperor Rudolf II, the successor of Emperor Maximilian II, possessed a large collection of amber and rare inclusions which Hermann might have once seen. This could have encouraged the poet to depict the specimens.

Hermann's poem definitely provides the most impressive information about those amber inclusions. The application of these means of literary

expression in the poem creates an impression with the reader that the inclusions developed naturally.

The first Riga edition of the poem contained an epigram of Antonio Querenghi (1546—1633), the secretary to the Pope. This epigram is an ingenious, a eulogistic and a short verse dedicated to the frog and the lizard encased in amber, which are glorified by Hermann in the poem. Antonio Querenghi is delighted with amber inclusions: he calls them “skillful art” “created by a mysterious craftsman” (Quaeringus, 1583):

Artificis fabricata manu simulachra latentis,
Ore loquax tacito Ranae spirantis imago ...

The author of the epigram may have meant a creation of God or a creation of nature. Inclusions in amber in the 16th century were considered a wonder of nature and a great treasure.

Further, in the poem Hermann gives several examples of how little animals and insects were caught in amber. He speaks about a liquid mass that little animals got caught in. The substance called naphta originates in or close to the sea, or close to the sea, and in the interior of the earth — underpasses. It features a characteristic odor attracting insects and little animals. They fall, roll down or fly into this “oil” and become amber inclusions.

Medical recipes in the poem about amber

At the end of the poem, the author considers the use of amber in medicine, describing some of its healing properties (*Virtutes Succini*). The recipes recommending the application of amber can be found in numerous 16th century medical treatises. Pliny the Elder was the first to write about the use of amber in medicine and praised the mineral’s curative properties (Pliny, 1906: Lib. 37., cap. XV).

Hermann writes that amber oil (*Oleum Succini*) is good for cold and runny nose: “Amber oil has a great power. It is enough to smear a drop of oil on your head, and the troublesome cold goes away” (Hermann, 1600: [20]).

Maxima in Electro virtus est insita, visque.
Namque oleum ex isto stillatur nobile succo,
Auxilium variis morbis, medicinaque praesens.
Si te discruciant gelidi sine fine catharri,
Illine gutta olei caput alto in vertice, sistet
Paulatim exiccans, fluxus absumet et ipsos.

Aurifaber dedicated several chapters (X—XIX) in his book *Succini Historia* to amber’s healing properties. The application of amber oil is considered in Chapter XII.

Lozenges from sugar and amber oil (*Rotulae Sacharicum Succini oleo*) were a popular kind of tablets in the 16th century. Sugar pills with added drops of amber oil might have been used for various head ailments. The exact ingredients of the recipe make one believe that it was copied from the prescription book of a physician. The poet writes that “sugar pills, dusted with drops of amber oil, relieve dizziness, improve cerebation” (Hermann, 1600: [20]).

Sic sachari rotulis de simplice more paratis,
Si ternae (neque enim sachari plus libra requirit)
Guttae inspergantur, permultum roboris addunt
Languidulo cerebro. Vertigo crebra rotatum
Cui caput infestat, rotulis se recreet istis.

Another example shows some curative properties of amber fumes (*Fumus Succini*). The lines of the poem allow one to make a conclusion that inhalation of amber fumes favors the treatment of cerebral ailments: “If you burn up a piece of amber and inhale its fumes, the amber fumes are likely to clean up head vessels” (Hermann, 1600: [20]).

Quod si ipsam accendas massam, fumumque suavem
Naribus excipias, aperiri crede meatus
Obstructi cerebri.

Amber powder (*Pulvis Succini*) was also used in medicine. Hermann provides an example where amber powder is used in obstetrics: “Taking amber powder makes the delivery easier and faster” (Hermann, 1600: [20]).

... Massa contusus ab ista
Pulvis et epotus gravidis insigne levamen
Matribus esse solet: nam partum promovet ipsum.

Aurifaber in Chapter XVII also emphasizes the significance of white amber in obstetrics highlighting different means of its application.

Through the example of several medical recipes, Hermann reveals amber's curative properties to his readers. He notes that there are many further praise-worthy properties of amber juice, about which one can read in the works of the 16th century medical professionals.

Conclusions

The poem by Daniel Hermann is a classical example of the poetry of humanism. It provides an insight into the interpretation of scientific and historical facts of the time. Treatises on studying amber were far from being extraordinary in the times of Hermann. In terms of its content, the poem cannot be called either pioneering or unique. However, the author by poetic means reveals interesting facts about the origin of amber and amber inclusions, following the concept of the inorganic origin of amber (G. Agricola).

The aim of publication of the Riga edition was certainly the dissemination of the ideas of humanism in Riga and in Livonia at large. For the educated readers in 16th and 17th century Riga, the poem may have seemed innovative and fascinating. Alternative scientific theories are able to bring about new discussions in the academic community, and the magic of the poetry of the Renaissance can give joy to any reader. Important are the words of praise to the eminent Polish Chancellor Jan Zamojski in the introduction to the poem. The description of political events once again reminds us of the victories of King Stefan Batory and the diplomatic relations with the Grand Duchy of Lithuania.

This poem might be of interest to a modern reader, since it depicts the prevailing 16th century opinion of amber's originating from bitumen, or oil.

Some parts of the poem were translated into German as early as the 17th century (See: Polyakova, 2014: 38). The lexicon by Johann Friedrich von Recke and Carl Eduard von Napiersky (1793—1864) mentions that the poem was translated into German, yet

the name of the translator was not given (Recke, Napiersky, 1827—1832: 258). In 2014, a poetic translation of the poem into Russian made by Lada Syrovatko was published as part of the publishing series “The Lay of Amber” by the Kaliningrad Regional Amber Museum. The prose translation of the poem into the Latvian language, some parts of which are given in the text, was completed by the author of this paper and is going to be published in the collection of research articles of the Latvian National Library.

Daniel Hermann's poem deserves not only philological and bibliographical investigations — it awaits experts from the other spheres. It might become a reference source for medical professionals, geologists, physicists, chemists, historians and especially for connoisseurs and researchers of amber.

Translation from Russian by N.V. Andreeva

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