Emblems and the Natural World

Edited by

Karl A.E. Enenkel

Paul J. Smith

BRILL

LEIDEN | BOSTON

CHAPTER 3

Camerarius's Quadrupeds (1595): A Plinius Emblematicus as a Mirror of Princes

Karl Enenkel

Introduction

The monumental *Symbola et emblemata* of the Nuremberg physician Joachim Camerarius the Younger (Kammermeister, 1534–1598)[1] is a milestone in the application of natural history in emblematics because of the extent and systematic order of the collection; the richness and complexity of the emblematic prose texts with respect to both the underlying emblematic conceptions and the facts of natural history; and, last but not least, the high quality of the engravings. In 400 emblems Camerarius presents a systematic and near-complete emblematic interpretation of biology as it was understood in the 16th century.

1 Camerarius published three printed emblem books during his lifetime: 1593–1596 saw the publication of the books on plants (b. I), quadrupeds (b. II), and birds (b. III); a fourth book, on the aquatic animals, was published only posthumously by his son Ludwig in 1605. In the first edition, book I has the title *Symbolorum et emblematum ex re herbaria desumtorum centuria una* [...] (Nuremberg, Johann Hofmann: 1590 [i.e. 1593, cf. below]; facsimile edition by W. Harms and U.-B. Kuechen, Graz: 1986); book II is titled *Symbolorum et emblematum ex animalibus quadrupedibus desumptorum centuria altera* [...] (Nuremberg, Johann Hofmann: 1595; facsimile edition by W. Harms and U.-B. Kuechen, Graz: 1986). In 1605 Ludwig Camerarius printed the first three books again (in a second edition) together with the posthumous fourth book (ibidem). For an edition of all four books cf. also Frankfurt, Johannes Ammonius: 1661. On Camerarius's printed emblem books cf. the "Einführung" by W. Harms and U.-B. Kuechen to their facsimile edition, vol. 2 (Graz: 1986), and Papy J., "Joachim Camerarius's Symbolorum et emblematum Centuriae Quatuor: From Natural Sciences to Moral Contemplation", in Enenkel K.A.E. – Visser A.S.Q. (eds.), *Mundus emblematicus. Studies in Neo-Latin Emblem Books, Imago figurata 4* (Turnhout: 2003) 201–234; in this volume, see also the contributions by Paul Smith (on the birds, book III), and Sophia Hendrikx (on the aquatic animals, book IV). For Camerarius the Younger cf. Wenning S., *Joachim II. Camerarius (1534–1598). Eine Studie über sein Leben, seine Werke und seine Briefwechsel* (Diss. Würzburg: 2013, Duisburg – Cologne: 2015). Wenning only briefly discusses Camerarius's emblem books in the catalogue of his printed works (147–151).

 | DOI 10.1163/9789004347076_004

Book I (1593)[2] comprises the plants; book II (1595), the quadrupeds; book III (1596/7),[3] the birds and other animals living in the air; and book IV (1605), the aquatic animals, reptiles, frogs, and snails. In the prose texts that accompany the single emblems Camerarius offers a complex amalgam of zoological information, moral wisdom (enriched by *apophthegmata*, *sententiae*, proverbs, and *auctoritates*), and different emblematic interpretations and applications, and he points to or creates related *imprese*.

The attractiveness of the images is enhanced by the fact that they were newly made especially for this emblem book, and that the emblem author Camerarius was in close contact with the graphic artist, the talented Johann Siebmacher (Sibmacher, Siber; 1561–1611), who also worked in Nuremberg.[4] In all probability, Camerarius gave detailed instructions to Siebmacher and provided graphical examples. Camerarius worked on the printed emblems in the last decade of his life (until 1598), in which the first three books appeared (1593–1597). He could not finish, however, the fourth book, which was completed and edited by his son Ludwig (1605).

The Structure of Camerarius's Emblem Books and the Status of the Accompanying Prose Texts

Camerarius's emblem books excel through a harmonious, well-balanced, and disciplined composition. Each of the four books consists of exactly 100 emblems, which is also stressed in the title (a book is called a 'centuria'). Each emblem comprises exactly two quarto pages; one page always has (1) the emblem number (in roman type); (2) a motto/ *impresa*, usually consisting of two or three words; (3) a *pictura* in the form of a circular engraving [Fig. 3.1]; and (4) an epigram, always a single elegiac distich. The other page [Fig. 3.2] is always dedicated to a prose text that usually fills the whole page. In emblem research this prose text is usually called "commentary"; this is, however, a bit

2 1593 is the probable date for when the first book appeared. The title page gives 1590, but this date must be wrong, since work on this emblem book was still proceeding in spring 1593; accordingly, Camerarius's letter of dedication is dated May 1, 1593. On this question see below.

3 As with book I, the date of the title page of book III is probably wrong (1596). Cf. the letter of dedication to this book dated February 1, 1597. The title page was probably already designed and engraved (at the end of 1596), whereas the book was printed in 1597.

4 For Siebmacher cf. Tacke A., "Sibmacher, Hans", in *Neue Deutsche Biographie* 24 (Berlin: 2010) 305; and Rée P.J., "Sibmacher, Hans oder Johann", in *Allgemeine Deutsche Biographie* 34 (1892) 136–138. Siebmacher became famous for his *Wappenbuch*, cf. Appuhn H. (ed.), *Johann Siebmachers Wappenbuch von 1605* (Munich: 1999).

FIGURE 3.2 *Joachim Camerarius the younger*, Symbolorum et emblematum ex animalibus quadrupedibus desumptorum centuria altera [...], *title page* (1595). *Private collection.*

misleading, especially if one takes into account the usual, modern definitions of commentary. According to these definitions, commentary is a kind of optional paratext which is clearly divided from the "text", i.e. the main text. However, it is important to note that in Camerarius's emblems *the prose text is the main text*. It is indispensable and contains the conception of the emblem and all necessary information. In fact, the prose text also could function without the epigram, and even without the image. In comparison, the epigrams are much less important. They never give information one could not also find in the prose text. In fact, Camerarius cared much less for the epigrams, and he did not author them: They were written initially by his nephew Joachim Jungermann, a talented student of medicine who unfortunately died at a young age (in 1591), and afterwards by Conrad Rittershausen (1560–1613),[5] who in the same year (1591) became professor of law at the university of Altdorf, and by Camerarius's son Ludwig (1573–1651). Ludwig was still very young when the first volume was composed, and although he added an introductory elegy to this volume (fol. <A5>r–v), it was Conrad Rittershausen who authored the poems. From volume two on, however, Ludwig shared the task of writing the poems with Rittershausen.[6] Father Joachim Camerarius was not fond of

5 For the authorship of Jungermann and Rittershausen in the first book of emblems cf. Camerarius's „Letter to the Reader" (Nuremberg: 1593), fol. 3r–v: 'Disticha vero coepit magna ex parte adiicere Ioachimus Jungermannus, sororis meae filius, iuvenis erudite doctus et ad Artem medicam, quae praesertim tractat cognitionem medicamentorum simplicium, excolendam et amplificandam plane natus [...] Quod itaque adhuc restabat in illis complendis, absolvit studiose eruditissimus vir et iuresconsultus doctissimus D. Cunradus Ritershusius (sic), Academiae Altorfensis professor diligentissimus, singularis amicus meus'. Joachim Camerarius must have worked on the printed emblems from ca. 1589. The poems were added after the prose texts were finished. The first poet who worked on the poems of book 1 initially, i.e. before 1591, must have been Jungermann, who died in 1591. Then the task was taken over by Rittershausen, who came to Altdorf/Nürnberg in the same year. Although the title page of book 1 gives the year 1590, the work on the emblems cannot have been finished at that early date: first, Camerarius's (printed) letter of dedication has the date May 1, 1593 (fol. A 4v); second, Rittershausen was still working on the poems to vol. 1 between January 3 and April 9, 1593. Cf. Harms-Heß, "Einleitung" XV; for the question of Camerarius and his "coauthors" cf. also Papy, "Joachim Camerarius's Symbolorum et emblematum Centuriae Quatuor" 212–213; Harms – Kuechen, in facsimile edition, "Einleitung" to vol. II, fols. 5*–12*.

6 In the "Letter to the Reader" that accompanies the second volume on the quadrupeds (Nuremberg: 1595) fol. Cc3r, he says: 'In distichis conscribendis rursum sum usus opera filii mei et nonnullorum amicorum. Nam in hoc genere minus me esse exercitatum ingenue fateor'; to the conspectus of authors of the third volume Camerarius added the remark: 'Sciendum autem (quod et in prioribus centuriis indicavimus) in distichis componendis nunc etiam me usum esse opera Clarissimi viri D. Cunradi Rittershusii, et filii mei Ludovici'.

writing Latin poems, and he did not want to present himself as a poet. For him it was the prose text which was the most important *subscriptio* of the emblems.

Unfortunately, in Henkel and Schöne's manual, in which all 400 Camerarius emblems are incorporated, the prose texts are simply left out.[7] Apparently, the editors considered the prose texts only as optional paratexts. By consequence, in this important manual Camerarius's emblems appear only in a mutilated form, and without the sources which are quoted only in the prose texts. In this article, the prose texts are considered as the main *subscriptiones*. The status Camerarius gave to the prose texts appears also from the manuscript forerunner of the printed emblem collection, the 200 *Symbola et emblemata tam moralia quam sacra*, preserved in the Stadtbibliothek Mainz (MS II, 366), which has been published in a commented facsimile edition by W. Harms and G. Heß.[8] The first book of the manuscript collection Camerarius dedicated to Ernst von Mengersdorf, bishop of Bamberg,[9] on October 2, 1586,[10] and the second book is introduced by a separate title page with the date 1587. About half of the emblems of the manuscript forerunner also appear in the printed edition. Although the two *centuriae* of the manuscript emblem book are presented in a totally different order, the structure of the single emblems is very similar to that of the printed edition. In the manuscript, too, each emblem is limited to two pages: The first page consists of the *pictura*, with motto and emblem number, the second page contains the accompanying *subscriptio* in the form of a prose text, and there are no epigrams. This means that Camerarius in the manuscript—and thus in his original conception of the emblems—regarded the prose text not as an additional commentary, but as the very *subscriptio*, the proper text intended to accompany the emblems.

The Book on the Quadrupeds

The present contribution focuses on the second book of Camerarius's printed emblems, on the quadrupeds, published in 1595. We will try to shed light on the zoological concepts applied by Camerarius, and the underlying principles of composition, as well as on the specifics of the zoological knowledge presented

---

7 Henkel A. – Schöne A. (eds.), *Emblemata. Handbuch zur Sinnbildkunst des XVI. und XVII. Jahrhunderts* (Stuttgart: 1967/ 1996).

8 See Joachim Camerarius d. J., *Symbola et emblemata tam moralia quam sacra. Die handschriftlichen Embleme von 1587*, ed. W. Harms – G. Heß (Tübingen: 2009).

9 Cf. Harms – Heß, „Einleitung" XIII–XIV, and facsimile edition 407–412.

10 Cf. Harms – Heß, facsimile edition 407–408.

by him, and of his emblematic interpretations. Furthermore: what kind of ethical, practical, theoretical, or religious wisdom did he try to impart to his readers? What is the sense of all of the other elements of the prose text, such as historical *exempla*, *sententiae*, *auctoritates*, alternative mottos, and related *imprese*?

The first emblem, with the elephant and the motto PVRA PLACET PIETAS [Fig. 3.1], is most revealing, and it has a programmatic character; it is no coincidence that it also appears on the title page [Fig. 3.2]. We see an elephant standing in the water and looking up at the moon. The zoological information or "story" is taken from Pliny's *Natural History*, book VIII, chapter 1. This book is the first of Pliny's zoology books (*Naturalis historia* VIII–XI), and it is devoted to the land animals. Pliny started his book with the elephant, not only because it is the biggest land animal, but because he believed that the elephant possessed a human-like intelligence, including the understanding of language, memory, individual affection, prudence, sense of justice, and above all, religion.[11] Pliny maintains that elephants worship the sun and the moon, and that on moonlit nights they walk in procession to a certain river in Mauretania in order to ritually purify themselves and to venerate the moon. Therefore, the elephant was for Pliny the ideal connection between the preceding book VII—on man—and his zoology.

The fact that Camerarius starts with Pliny, *Naturalis historia* VIII, 1, is both a statement and a claim: He takes over Pliny's zoological composition, and in doing so, he presents his work as a "Plinius emblematicus", a Pliny *in emblematics*, which means an indispensable manual, a work of the highest authority, containing the most relevant zoological information. The imitation of Pliny is crucial in order to understand other important features of his emblem book.

11 For the composition of Pliny's book on the land animals and its underlying principles cf. Enenkel K.A.E. "Die antike Vorgeschichte der Verankerung der Naturgeschichte in Politik und Religion: Plinius' Zoologie und der römische Imperialismus", in Enenkel K.A.E. – Smith P.J. (eds.), *Zoology in Early Modern Culture. Intersections of Science, Theology, Philology, and Political and Religious Education* (Boston – Leiden: 2014) 15–54; for Pliny's biological concepts in general cf. Beagon M., *Roman Nature: the Thought of Pliny the Elder* (Oxford: 1992); Conte G.B., "The Inventory of the World: Form of Nature and Encyclopedic Project in the Work of Pliny the Elder", in idem?, *Genres and Readers: Lucretius, Love Elegy, Pliny's Encyclopedia* (Baltimore: 1994); Doody A., *Pliny's Encyclopedia: The Reception of the Natural History* (Cambridge: 2010); Murphy T., *Pliny the Elder's* Natural History. *The Empire in Encyclopedia* (Oxford: 2004); Naas V., "Extraordinaire et merveilleux dans l'*Historia Naturalis*: Réflexions sur la définition de 'l'encyclopédie' plinienne", in *Colloque International, Paris-X-Nanterre, 11–13 janvier 1996* (Paris: 1997) 139–168.

In the composition of his book on land animals, Pliny deals in the first part with the exotic and wild species, from the elephant to the hystrix (VIII, 1–125), and in the second with the domestic and domesticated species (VIII, 126–224), from the bear (126–131) to the mouse (224). In general, he places the species in order from big, strong, and dangerous, to small, domesticated, and innocent.[12] An important line of thought is connected with the official presentation of the exotic and wild animals in the city of Rome, that is, in animal shows in the amphitheatre. Pliny always records when exactly an exotic animal was first presented in an animal show. As I have shown elsewhere, the presentation of animals in such shows had the purpose of demonstrating the power of the Roman Empire over nature, i.e. the world.[13] Most importantly, Pliny's account is always focused on rarities; he offers surprisingly little "normal" zoological information. His zoology is a kind of written "cabinet of rarities", and it should be appreciated as such by the reader, who is supposed to admire the miraculous power of nature and its surprising, sometimes hidden, intelligence.

In all of this, Pliny's zoological concepts are of pivotal importance for Camerarius's zoological emblems, certainly in book II. Camerarius starts with the biggest land animal, the elephant, and in the final twenty emblems he treats the small creatures, such as the weasel (79–80), ermine (81), rabbit (82), hystrix (84), hedgehog (85–86), squirrel (87–88), ferret (89), chameleon (90), turtle (91–92), castor (93 and 96), and mole (94). The first part of the book is dedicated to the exotic, large, spectacular, and dangerous species, such as the elephant (1–3), rhino (4–5) [Fig. 3.4], lion (6–11) [Fig. 3.5], unicorn (12–14), camel (15–17) [Fig. 3.6], giraffe (18), aurochs (19), and bear (20–23). About half of the emblems are dedicated to exotic animals. Animal fights also appear in Camerarius's account, e.g. those of an elephant and a giant snake (3), a rhino and an elephant (4), a rhino and a bear (5) [Fig. 3.7], a lion and a tiger-dog (7), and so on; and of course, these are mostly regarding animals that had been presented in shows in Roman times. However, Camerarius sometimes treated this aspect on a more theoretical level, through addressing the *antipatheia* of various animals towards each other. With respect to the composition, Camerarius applied the principle of order from large to small size more systematically than Pliny.[14]

---

12 Cf. my "Plinius' Zoologie und der römische Imperialismus ".

13 Ibidem. For this aspect cf. also Murphy T., *Pliny the Elder's* Natural History. *The Empire in Encyclopedia* (Oxford: 2004).

14 This has led to the fact that, among other animals, the bear, the horse, and cattle come much earlier than they do in Pliny's account (II, 20–32).

Most importantly, Camerarius not only took over Pliny's principle of collecting rarities, but pushed it to the extreme: In a sense, he made a selection of the "rarest rarities" from Pliny's zoology. Characteristically, Camerarius had this aspect expressed on the title page [Fig. 3.3]: 'Exponuntur in hoc libro *rariores* [...] *animalium proprietates*'—'This book presents the very rare [...] features of animals'. This aspect is illustrated by the central emblem, about the religious behaviour of elephants. Camerarius enhances this tendency by outdoing Pliny, i.e. presenting rarities Pliny did not include, such as the musk deer (11, 45) [Fig. 3.8] from central Asia; the saiga from the Eurasian steppe (11, 44); and the armadillo (11, 83) and the opossum (11, 58) from the Americas. In the description of the armadillo, Camerarius stresses that it was 'perhaps unknown to the ancients' ('animal quoddam veteribus forsitan incognitum'); about the saiga antelope he says that it was 'known up till now only by a few people, I think' ('paucis—ut opinor—adhuc cognitum'). We will look at this aspect in more detail below.

FIGURE 3.3 *Joachim Camerarius the younger*, Symbolorum et emblematum ex animalibus quadrupedibus desumptorum centuria altera [...], *title page* (1595), *detail. Private collection.*

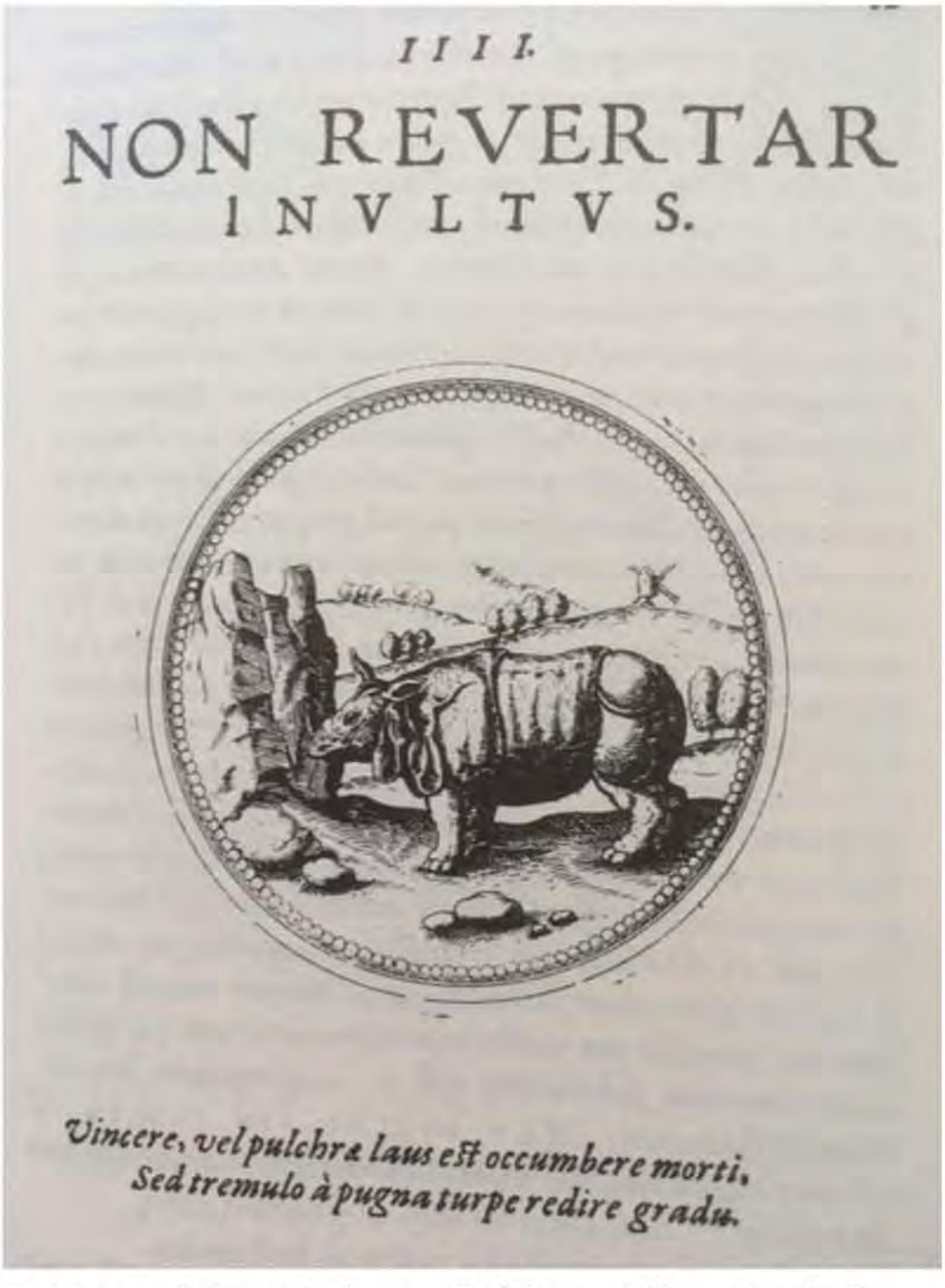

FIGURE 3.4 *Joachim Camerarius the younger*, Symbolorum et emblematum ex animalibus quadrupedibus desumptorum centuria altera [...], *emblem no. 4. Private collection.*

FIGURE 3.7 *Joachim Camerarius the younger*, Symbolorum et emblematum ex animalibus quadrupedibus desumptorum centuria altera [...], *emblem no. 5. Private collection.*

FIGURE 3.8 *Joachim Camerarius the younger,* Symbolorum et emblematum ex animalibus quadrupedibus desumptorum centuria altera [...], *emblem no. 45. Private collection.*

The principle of presenting remarkable rarities of nature is connected with the didactic purpose of the work. This is certainly true for book II: It was written for young people, students—who were, of course, always members of the elite—and was especially meant to function as a "mirror of princes". Camerarius dedicated it to the three young princes of Saxony, the sons of the late Christian I, Elector of Saxony (1560–1591): Christian II (1583–1611),[15] by then successor of his father as Elector of Saxony (1591–1611); Johann Georg (1585–1656), who would become Elector from 1611 on (–1656); and August (1589–1615). When the three princes received the book they were 12, 10, and 6 years old, respectively. As Camerarius explains in the *Letter of Dedication* (from April 1, 1595), he consideres the 'very rare facts of nature' ('physica [...] minus vulgaria') as an important and indispensable didactic tool, since they are both enjoyable and easy to memorize.[16] Both aspects are especially valuable for the education of young people: What enters the mind joyfully and elegantly, Camerarius says, can be retained more easily and will stay in the mind with more stability ('quod [...] cum delectatione et gratia in animum subit, stabilius illi inhaeret').[17] These pedagogical thoughts very much resemble those of Erasmus, which come to the fore in, for example, his treatise *De educatione puerorum*, and his mirror of princes, *Institutio principis Christiani*.[18]

The connection between Camerarius's printed emblem books and education is also suggested by various aspects concerning the form and the content of the emblems. The *picturae* have a circular form with an ornamental dotted line [Fig. 3.1]. This form of the engravings suggests that the *picturae* were meant to represent (or resemble) medals. This is probably to be understood with respect to a more specific use of the emblems in schools and universities. The University of Nuremberg was founded in Altdorf in 1575. From the very beginning, the university developed an intriguing tradition. In each class, at the end of the school year, the best pupils received a prize—a silver medal with an emblem on the recto side (*pictura* and motto) [Fig. 3.9A and B].[19] Interestingly, the Altdorf medal issued in 1582 shows the same image

15 For Christian II cf. Kroll F.-L., *Die Herrscher Sachsens: Markgrafen, Kurfürsten, Könige 1089–1918* (Munich: 2004) 133–136, and Schille Ch., "Christian II.", in *Neue Deutsche Biographie* 3 (1957) 231–232.

16 *Symbolorum et emblematum ex animalibus quadrupedibus desumtorum centuria altera* [...] (Nuremberg, Johann Hofmann: 1590) fol. a2v.

17 Ibidem.

18 Erasmus, *Opera omnia, ASD* IV, 1, ed. O. Herding (Amsterdam: 1974).

19 For this aspect cf. Stopp F.J., *The Emblems of the Altdorf Academy. Medals and Medal Orations 1577–1626* (London: 1974). The importance of this aspect also has been rightly emphasized by Harms and Heß in their "Einleitung" to the facsimile edition of Camerarius's manuscript emblem book.

FIGURE 3.9A *Altdorf price medal of 1582 (Stopp no. 20).*

FIGURE 3.9B *Altdorf price medal of 1582, depicted in Hulsius Levinus (ed.),* Emblemata anniversaria Academiae Noribergensis [...] *ab anno Christi n. 1577 usque ad annum 1616* [...] (*Nuremberg, A. Wagemann: 1617*) *76. Private collection.*

as Camerarius's emblem 11, 4 [Fig. 3.10].[20] The winner of the prize—in this case the Austrian baron Georg-Erasmus von Tschernembl—usually delivered a public speech (*oratio*) in which he thanked the rector and explained the emblem in front of a broader audience of students, parents, and the staff of the university. The first Altdorf prize medals were coined in 1577, and the tradition continued well into the 17th century. Levinus Hulsius printed the collected prize speeches from 1577 to 1616, together with images of the medals.[21]

Camerarius's emblems fit perfectly into the framework of this tradition: After the appearance of the first three books of the printed *Symbola et emblemata*, 1593–1597, a considerable number of Altdorf prize medals were coined after their example. For example, the medal of 1601 showing the squirrel crossing the river with the motto VINCIT SOLLERTIA VIRES, given to Johannes Paulus Coler from the third class [Fig. 3.11A and B], was copied from Camerarius 11, 88 [Fig. 3.12]. Although Camerarius provided the examples for Altdorf medals, he may also have been inspired by them. There are several parallels in the manuscript emblem book and the Altdorf medals. In some cases the manuscript may have been the example; in other cases, Camerarius may have been inspired by already existing medals.[22] This may have been the case with emblem 11, 4, with the rhino [Fig. 3.10].[23] Anyway, it is clear that Camerarius had very close connections with the Altdorf Academy and the medal production: His younger brother Philipp (1537–1624)[24] was from 1581 on prorector of the Academy, and for more than thirty years served as a member

20 For this emblem see the detailed analysis below.

21 Hulsius Levinus (ed.), *Emblemata anniversaria Academiae Altorfinae studiorum iuventutis exercitandorum causa proposita et variorum orationibus exposita* (Nuremberg, Christoph Lochner, Levinus Hulsius: 1597); 2nd edition: *Emblemata anniversaria Academiae Noribergensis, quae est Altorffii: studiorum iuventutis exercitandorum caussa inde ab anno Christi 1577 usque ad annum 1616 proposita; oratiunculis eruditis et nervosis in Panegyricis Academicis explicata atque in IV Decadas distributa. Opus philologicum multiplici doctrina insignique rerum et materiarum varietate, instar cornu copiae, iucundissimum et cuiusque professionis hominum utilissimum* (Nuremberg, Abraham Wagemann: 1617).

22 Cf. Harms – Heß, "Einleitung"; Stopp, *The Emblems of the Altdorf Academy* 87.

23 Cf. the detailed discussion below.

24 For Philipp Camerarius's biography cf. Kühlmann W., "Camerarius, Philipp", in *Verfasserlexikon—Frühe Neuzeit in Deutschland 1520–1620*, Bd. 1 (Berlin et al.: 2011); idem, "Camerarius, Philipp", in *Killy Literaturlexikon. Autoren und Werke des deutschsprachigen Kulturraumes*, 2nd ed. (Berlin: 2008) 342; Schelhorn Johann Georg, *De vita, fatis ac meritis Philippi Camerarii, Jurisconsulti, Historici ac Philologici pereximii et primi Academiae Altorfinae procancellarii commentarius* [...] *nunc primum edita* (Nuremberg, Johannes Michael Seitz – Christoph Cornelius Zell: 1740).

FIGURE 3.10 *Joachim Camerarius the younger*, Symbolorum et emblematum ex animalibus quadrupedibus desumptorum centuria altera [...], *emblem no. 4. Private collection.*

of the committee that was in charge of the prize medals. Thus, we may suppose that Joachim Camerarius was from a very early stage on informed about the Altdorf medals, and that he was already somehow influenced by this tradition when he composed his manuscript collection of emblems (ca. 1585–1587), and of course, *a fortiori*, when he worked on his printed emblem books.

Pedagogical aspects are of great importance for both the printed emblem books and the manuscript collection, although there are some differences, especially when one looks at the second book of the printed emblems. In this book, the moral education is either general or focuses on political aspects and is of special interest for future political leaders, town administrators, and princes. In the manuscript, the didactic aims are directed mostly toward religious aspects, as is also suggested by the preserved title page of book two: SYMBOLORUM ET EMBLEMATUM *TAM MORALIUM QUAM SACRORUM* SELECTISSIMORUM CENTURIA ALTERA.[25] This is probably to be explained by the fact that the manuscript was dedicated to the bishop of Bamberg, Ernst von Mengersdorf.[26] In June 1586, a few months before Camerarius presented the bishop with the first book of the manuscript (October 1586), the bishop had opened a new seminary school in Bamberg.[27] Harms and Heß rightly emphasize the humanist outlook of this new school, and the humanist ideology of both the bishop and Camerarius. One could well imagine that with his manuscript collection Camerarius wanted to propose the idea of the emblematic Altdorf prize medals to the bishop's school, and that he prepared emblems in a sense that would fit a seminary, i.e. through interpreting the emblems in a religious sense.

In the manuscript, however, the discourse of biology (botany and zoology) is in general less important than it is in the printed emblem books. The two manuscript *centuriae* certainly do not represent a "Plinius emblematicus". A considerable number of the *picturae* (or *res significantes*)—about 50%—do not belong to biology.[28] Most importantly, Camerarius's composition—in a marked difference from the printed emblem books—does not at all reflect the order of nature as presented by Pliny's natural history. If the *picturae* (or *res*

25 MS p. 199, facsimile edition p. 203 (emphasis mine); cf. Harm – Heß, "Einleitung" XII 'Das Manuskript setzt hingegen [...] stärker religiöse Akzente [...]'.

26 For Ernst von Mengersdorf cf. Metzner J., *Ernst von Mengersdorf, Fürstbischof von Bamberg, die Weihbischöfe Dr. Jakob Feucht und Dr. Johann Ertlin* (Bamberg: 1866).

27 Cf. Harms – Heß, "Einleitung" XIV.

28 For example, of the emblems 1, 1, 5, 6, 7, 13, 14, 15, 16, 20, 22, 27, 28, 29, 32, 35, 36, 39, 40, 41, 43, 47, 48, 50 etc.

significantes) belong to the realm of biology, the part of the prose text that is dedicated to natural history is much shorter and simpler than in the printed emblem books; in general, Camerarius is satisfied with a single fact from natural history, and with one source from biological history (which is, not surprisingly, often Pliny). Only very occasionally other information is added.

In the printed emblem collection, however, the prose text is mostly four to five times as long; the information on natural history in particular is always extended and is usually much more complex. Camerarius is hardly ever satisfied with a single fact of nature. In book II he mostly adds either descriptive elements of the animal or other rare facts that are not directly connected with the emblematic *res significans*. Also, he regularly comes up with more, and preferably more remote, authorities on natural history. In general in the printed emblem books he prefers Greek *auctoritates* to Latin ones: Aristotle, Aelian, Oppian of Apameia, Plutarch (esp. *De sollertia animalium*), and so on. Furthermore, in a considerable number of cases it can be demonstrated that Camerarius drew heavily on Gesner's *Historia animalium* of 1551 ff.; Camerarius tried to include as much as possible the profound learning displayed in the zoology of Gesner, who was regarded by his contemporaries as *the new Pliny*. Nevertheless, only rarely does Camerarius mention Gesner, and Gesner is especially mentioned in cases in which Camerarius does not agree with him. In general one gets the impression that Camerarius used Gesner's work as a natural history sourcebook from which he took many of the authorities he quotes in his prose text. In this way, Gesner can often be found behind the first part of Camerarius's prose texts, even if Camerarius does not agree with him. Sometimes it was maintained that it is empirical observation in particular that characterizes the biological part of Camerarius's prose texts. This is, however, questionable. It is true that Camerarius sometimes sceptically discusses natural history information, but this does not necessarily mean that he had a preference for empirical observation. In the second book, on the quadrupeds, empirical observation only appears as an exception; more often, his inquiry is dedicated to the question of which of the bookish *auctoritates* is the right one. A kind of empirical orientation, however, can be detected with respect to the pictorial part of the printed emblems. It is clear that Camerarius took a great interest in the *picturae*: He was eager to present new, up-to-date images that rendered the animals as realistically as possible. In a number of cases the *pictura* of the printed emblem is more realistic or more convincing than its manuscript forerunner.

At least in book II, all these differences between the printed emblems and their manuscript forerunners are connected with their didactic orientation. The emphasis on the curiosities of nature is meant to strengthen the aspect of

delectatio.[29] The more *delectatio* offered, the better the moral education would function, and the stronger the effect of the emblems was expected to be.

Furthermore, the second part of Camerarius's prose texts—the part comprising the emblematic explanations—is more extended and much more complex in the printed emblems. This feature is connected with a number of aspects. In general, the web of emblematic intertextuality is more dense and more subtle in the printed emblems. Camerarius includes and/or mentions more emblematic sources than in the manuscript, and he offers a greater number of complex emblematic interpretations. For example, in a number of cases he connects his emblems (explicitly or implicitly) with the hieroglyphical tradition apparent in the illustrated Horapollo editions and in Pierio Valeriano's (1477–1558) *Hieroglyphica* (ed. pr. 1556). But most importantly, Camerarius usually connects his printed emblems explicitly with the Italian *impresa* hype of the second half of the 16th century, and he does so systematically and more often than in the emblematic manuscript. He adds not only variant *imprese* (partly with alternative interpretations), but also introduces alternative mottoes, which he partly invented himself and partly translated from Italian *imprese* collections. Works such as Scipione Ammirato's *Il rota overo dell'imprese dialogo* [...] (Naples, Giovanni Maria Scoto: 1552); Scipione Bargagli's *Dell' imprese*;[30] Camillo Camilli's *Imprese illustri di diversi, cio discorsi di Camillo Camilli* [...] (parte prima, Venice, Francesco Ziletti: 1586); Giulio Cesare Capaccio's *Delle imprese trattato* [...] (1592);[31] Luca Contile's *Ragionamento* (1574);[32] Lodovico Dolce's *Imprese nobili* (1583);[33] Giovanni Domenichi's *Ragionamento* (1559);[34] Paolo Giovio's *Dialogo dell'Imprese* (1574)[35] or *Le sententiose Imprese* (1561);[36] and Battista Pittoni's *Imprese di diversi principi, duchi, signori, e d'altri*

29 Cf. above.

30 *Dell' Imprese di Scipion Bargagli gentil'huomo Sanese* [...] (Venice, Francesco Franceschini: 1594).

31 Three books (Venice, Orazio Salviani – Giovanni Giacomo Carlino – Antonio Pace: 1592).

32 *Ragionamento di Luca Contile sopra la proprietà delle Imprese con le particolari de gli Academici affidati et con le interpretationi et chroniche* [...] (Pavia, Girolamo Bartoli: 1574).

33 *Imprese nobili et ingeniose di diversi prencipi, et altri personaggi illustri nell'arme e nelle lettere* [...] *con le dichiarationi in versi di Ludovico Dolce* (Venice, Francesco Ziletti: 1583).

34 *Ragionamento* [...] *nel quale si parla d'Imprese d'armi e d'amore* [...] (Milano, Giovanni Antonio degli Antoni: 1559).

35 *Dialogo dell'Imprese militari et amorose di Monsignor Giovio* [...] *et del Gabriel Simeoni Fiorentino. Con un ragionamento di M. Lodovico Domenichi, nel medesimo sogetto* [...] (Lyons, Guillaume Rouille: 1574).

36 *Le sententiose Imprese del Monsignor Paolo Giovio et del Signor Gabriel Symeoni ridotte in rima per il detto Symeoni. Al serenissimo duca di Savoia* (Lyons, Guillaume Rouille: 1561).

personaggi et huomini illustri (1566)[37] are of great importance for Camerarius's emblems.

The Rhino Emblems

In order to get a better impression of Camerarius's method of working it is best to look more closely at a couple of singular emblems. E. 11, 4, NON REVERTAR INVLTUS (I will not return without having taken revenge), certainly presents a very rare species, one hardly ever seen in Europe—the rhino [Fig. 3.10]. The most important source of natural history is Pliny, VIII, 70–71, who tells us that rhinos are perpetually at war with elephants, and he describes the way the rhino kills the elephant—by cutting open the elephant's belly with its horn. Pliny also maintains that before fighting the elephant, the rhino usually sharpens its horn on a rock. This assertion is exactly what the engraving intends to show; in the left corner a rock is depicted, which the rhino is going to use as a whetstone. The wild nature of the foreground is in a sense contrasted with the typically European landscape with the windmill in the background. This is a general feature of the engravings: Most of them have European landscape backgrounds, even if exotic animals are depicted. For example, in E. 11, 10, a lion is caught in the environs of a village with a church [Fig. 3.13]. In 11, 17, the camel walks through a European landscape with a windmill [Fig. 3.14]. The European landscape backgrounds may be purely decorative; at the same time, for the 17th-century viewer they may have added some familiarity to the exotic images, and may have helped the viewer internalize the emblematic images and their messages.

Interestingly, E. 11, 4 was already in the manuscript collection MS 1, 30, with the motto AMAT VICTORIA CVRAM (Victory requires preparation). The *pictura* indeed shows the very first rhino that came to early modern Europe, an Indian rhino (*Rhinoceros unicornis*). The animal (with the name of Gujaranti) was sent to Lisbon in 1515 as a diplomatic gift from Sultan Muzafar II of Cambay to the King of Portugal Manuel I.[38] Dom Manuel enjoyed the rhino tremendously; he had a famous menagerie and was genuinely interested in natural history. He was eager to test Pliny's information by organizing an animal fight between the rhino and one of his elephants. Because the elephant panicked

37 Book I Venice, without date; book II Venice: 1566.

38 Cf. *Clarke T.H., The Rhinoceros from Dürer to Stubbs: 1515–1799* (*London: 1986*).

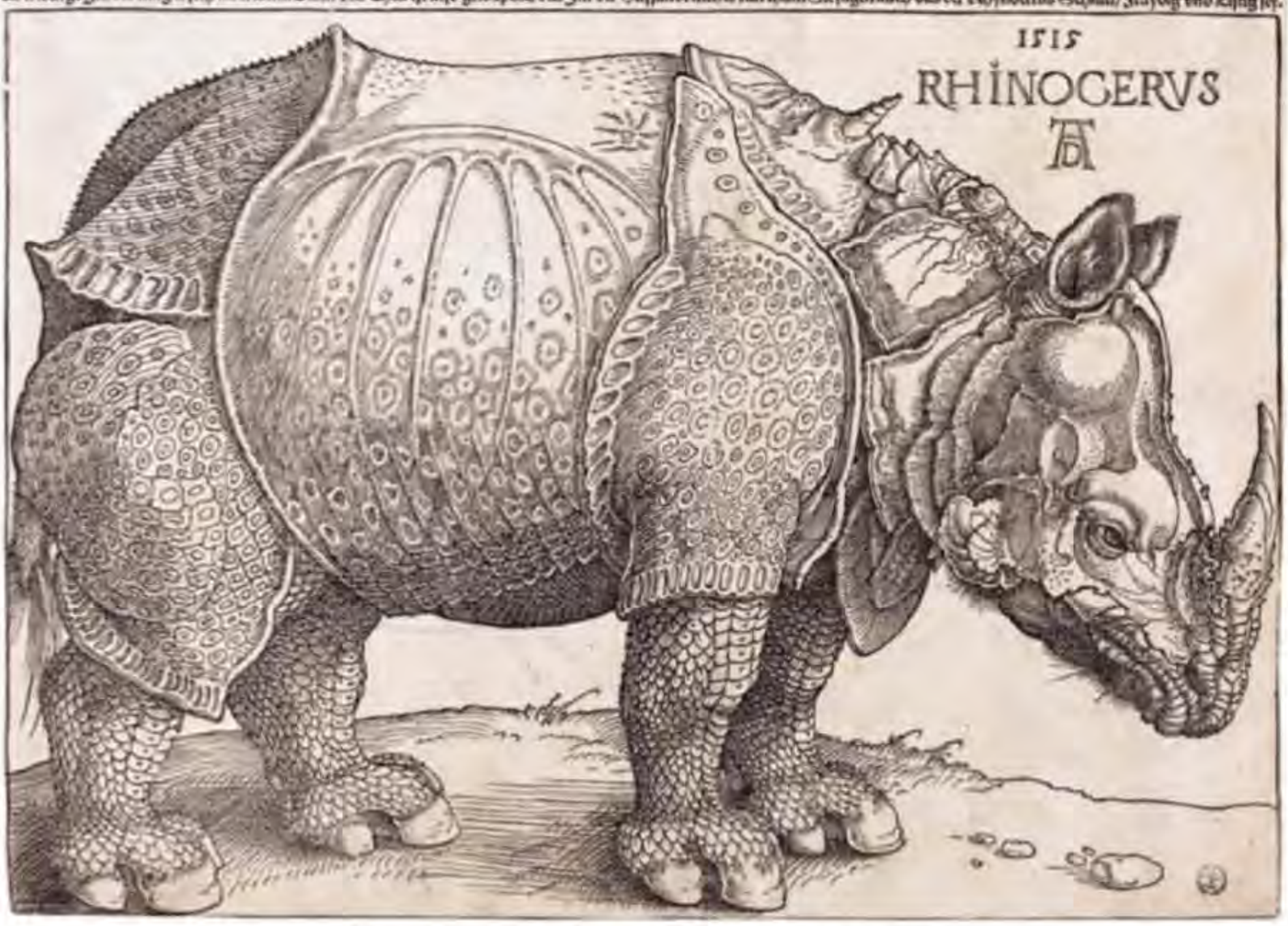

FIGURE 3.15 *Albrecht Dürer, Indian Rhino. Woodcut (1513) (Nuremberg: 1515).*

and ran away, Pliny was vindicated. After this successful test, Dom Manuel decided to present the rhino to Pope Leo X and send it to Rome. Unfortunately, the Portuguese caravel shipwrecked close to La Spezia, and the poor animal drowned.

The image of Camerarius's manuscript emblem [Fig. 3.15] ultimately goes back to Dürer's woodcut [Fig. 3.15], a woodcut that immortalized the rhino and made it world famous.[39] In an accompanying inscription Dürer suggested that he had portrayed the animal from life; however, he never saw the animal in person. Also, he claims that he saw the rhino in 1513, but at that time the rhino was still in India. Part of the enormous success of this woodcut was Dürer's phantastic *inventio*: the Indian rhino's characteristic skin folds [Fig. 3.17], which seem to divide its skin into big plates, and the wart-like bumps that cover parts

39 Cf. Salzgeber D., *Albrecht Dürer: Das Rhinozeros* (Reinbek: 1999).

of its skin, which Dürer interpreted as a medieval knight's suit of armour, thus giving the courageous warrior animal a proper appearance. Another stunning element of Dürer's fantastic *inventio* is the strange horn on the back of the animal [Fig. 3.15]. This horn looks like an ornament on a warrior's armour. Of course, the second horn had little to do with the animal's real appearance, but through Dürer's woodcut, the strange 'Dürerhörnlein' became authoritative for the rhino's image in the 16th and 17th centuries. Dürer's woodcut, however, was probably not the immediate example for the *pictura* of Camerarius's manuscript emblem; the image was taken from the Altdorf medal from 1582, which was made by Hans Jamnitzer and which is still preserved [Figs. 3.9A and B].[40] The medal provided the motto taken from Catullus (AMAT VICTORIA CVRAM), which of course was not present on Dürer's woodcut, and two important pictorial elements: the whetstone (not depicted by Dürer) [Fig. 3.15] and the extraordinary length of the "Dürerhörnlein". The Altdorf medal itself was in all likeliness designed after the example of Dürer's woodcut: in the *suprascriptio* Dürer told the story of the rhino's war with the elephant, and its habit of cutting open the elephant's belly with its horn [Fig. 3.15].[41] The young man who received the medal, Georg-Erasmus von Tschernembl, saw the relationship between the medal's image and that of Dürer: 'Ex illa Dureri pictura suspicor desumptam imaginem rhinocerotis, quae in nostro nomismate conspicitur' ('I think that the image of the rhino seen on our medal was taken from Dürer's famous illustration').[42] Furthermore, he discovered that the source of the motto was Catullus, *Carmina* 62, 16 (the well-known wedding hymn).[43] He explained the emblem in a twofold way: first in the sense of a mirror of princes, and second as the *vita scholastica* at universities. Applied in the first sense it means that victory always depends on the prince's constant care (*cura*) and his willingness to take on labour and risk; in the second, that students must avoid

---

40 Stopp, *The Emblems of the Altdorf Academy* 122 (no. 29); Cf. Harms – Heß, Facsimile edition 443–444 (commentary).

41 'Das dosig Thier ist des Helffantz todt feyndt. Der Helffandt furcht es fast vbel / dann wo es Jn ankumbt / so laufft Jm das Thier mit dem kopff zwischen dye fordern payn / vnd reyst den Helffandt vnden am pauch auff vnd er wuorgt Jn / des mag er sich nit erwern. Dann das Thier ist also gewapent / das Jm der Helffandt nichts kan thuon'—'It is the mortal enemy of the elephant. The elephant is afraid of the rhinoceros, for when they meet, the rhinoceros charges with its head between its front legs and rips open the elephant's stomach, against which the elephant is unable to defend itself. The rhinoceros is so well armed that the elephant cannot harm it'.

42 *Emblemata anniversaria Academiae Noribergensis* [...] (= 2nd ed.) 77.

43 Ibidem.

alcohol, sex, and sleep.[44] Camerarius's interpretation seems to be a variation of Von Tschernembl's: the emblem either brings to the fore the providence of the prince ('imago ducis providi')[45] in war matters, or advises one to master one's sins/flaws of character (*vitia animi*). Another source used by Camerarius was Pierio Valeriano's *Hieroglyphica* II, 21 ("De rhinoceronte"). The zoological part of Camerarius's emblem is a paraphrase of Pliny's entry on the war between the rhino and the elephant.[46] Since Camerarius explicitly refers to Pliny ('ut Plinius scribit'), he suggests that he consulted the *Naturalis historia*. However, as the details of the text show, he took it from Valeriano.[47]

In a marked difference with the manuscript, the zoological prose text in Camerarius's printed version is much longer; in particular, he adds zoological information on the rhino's number of horns, its name, and so on. The number of horns turned out to be a zoological problem, because one of the African subspecies which bears two horns, probably the black rhino (*Diceros bicornis*), was well known in ancient Rome, and was described as such—for example, by Martial ('cornu gemino'—'with a double horn'),[48] Cassius Dio, and Pliny[49]—whereas in the 16th century only Indian rhinos (thus, those with one horn: *Rhinoceros unicornis*) occasionally made their way to Europe. How can one explain the second horn mentioned by the ancient authors? Gesner, in his *Historia animalium*, came up with a special solution.[50] In his opinion, all rhinos had only one horn on their nose. Dürer's woodcut was for Gesner the key to the latter's effort to harmonize all the existing information on the rhinoceros.

---

44 Ibidem 77–79; cf. esp. the introductory sentences: 'Cuius symboli haud dubie haec est sententia: nullam victoriam ab ullo hoste unquam reportari sine ingenti cura, sine labore et sine aliquo periculo' (77), and 'Sed praetermissis bellicis victoriis paucis attingamus scholasticam militiam. Nobis enim scholasticis de nostra militia inclytus Noribergensis Reipublicae senatus in hoc symbolo commonefactionem proponere voluit [...]: "Venter, pluma, Venus laudem fugienda sequenti" [...] Qui igitur in castris Musarum versantur, ante omnia studeant temperantiae et sobrietati, ne a ventre, gula et crapula turpiter vincantur [...]' (78).

45 Of course, the *providentia* of the prince is not the same as constant care, and willingness to take on labour and risk; Von Tschernembl's interpretations seem to be closer to the motto AMAT VICTORIA CVRAM.

46 *Naturalis historia* VIII, 70–71.

47 Valeriano Pierio, *Hieroglyphica seu de sacris Aegyptiorum* [...] (Lyons, Thomas Soubron: 1594) II, 21 ("De rhinoceronte").

48 Martial, *De spectaculis* 22 (26), 5.

49 Cf. *Der neue Pauly. Enzyklopädie der Antike* 8 (2000) 722, s.v. "Nashorn" (Ch. Hünemörder).

50 Gesner, *Historia animalium* I [...] (Zurich, Christopher Froschauer: 1551) 954.

Apparently, Gesner believed that Dürer's claim to have depicted the Portuguese rhino from life was true. Therefore, Gesner was sure that if ancient authors talked about a second horn, they must have meant the strange one on the animal's shoulders (the "Dürerhörnlein"). This horn was not as sharp as the one on its nose and was not useful as a weapon, so in fact it could hardly be called a horn.[51] Camerarius's point of view very much resembles Gesner's, since he thinks that the rhino had only one horn, and he clearly used Gesner's chapter on the rhino. For example, Camerarius copied Gesner's Latin name for the rhinoceros, 'naricornis';[52] Pausanias's name, 'taurus Aethiopicus' ('Ethiopian bull');[53] the remark that, 'surprisingly, Aristotle never mentioned the rhino'[54] (which is in fact not true);[55] and so on. Like Gesner, Camerarius thinks that 'Martialis de gemino cornu licentia poetica loquitur' ('Martial talks about the double horn with poetic licence'). With respect to the "Dürerhörnlein" Camerarius even goes a step further than Gesner: he thinks that it does not even have the form of a horn, but is just 'something like a hump' ('tuberosum quippiam'). For the war between rhinos and elephants Camerarius does not quote Pliny (as in the manuscript; although in fact, there his source was Valeriano), but more impressive Greek sources, such as Oppian of Apameia's *De venatione*[56] and Aelian's zoology *De natura animalium*;[57] furthermore, for the rhino's bravery and fighting spirit, 'a line from Martial': 'Rhinoceros nunquam victus ab hoste redit' ('The rhino never returns from his enemy as the loser'). Camerarius took the authorities Oppian of Apameia and Aelian from Gesner as well;[58] the "new authority" Martial, however, is a bit curious. Although Martial talked about

51 Cf. ibidem: 'Quamquam enim gemina in hac animante cornua spectentur, unum in nare, ut diximus, quod grandius, alterum superius, parvum admodum et inutile, cum uti eo bellua non possit, ut in pictura apparet. Quare vix cornu etiam nominatur [...]'—'Although one can observe that this animal bears two horns, one on the nose, as I have said, which is bigger, and another one on its back, the latter is (only) small and useless, because the animal cannot use it. Therefore, one can hardly call it a horn (in its proper sense)'.

52 Cf. ibidem 952: 'rhinocerontis, id est naricornis [...]'.

53 Ibidem: 'Pausanias in Boeoticis tauros esse scribit in Aethiopia, qui rhinocerotes vocentur, a naso cornuto [...]'—'Pausanius writes in his book on Boeotia that there are bulls in Ethiopia that are called rhinos because of the horn on their nose'.

54 Cf. ibidem 954: 'Aristotelem nusquam huius animalis meminisse miror [...]'.

55 Cf. Aristotle, *Historia animalium* II, 1, 499 B 20–21; *De partibus animalium* III, 2, 663 A 18–23.

56 Oppian, *De venatione* II, 551–565.

57 Aelian, *De natura animalium* XVII, 44.

58 Gesner, *Historia animalium* I, 954.

rhinos a number of times, he definitively is not the author of this Latin verse; Camerarius mistakenly ascribed it to him.[59]

In general, the 'zoological part' of the prose text of E. 11, 4, is entirely bookish, depends largely on Gesner, and has little to do with empirical information. As usual, Camerarius draws heavily on Gesner, but he only rarely mentions him. Camerarius does not offer first-hand information, and he had in fact never seen a real rhino. Nevertheless, he claims to have included new empirical information, and this claim regards the *pictura* [Fig. 3.10]—he says that he offers a new, authentic, realistic, and precise illustration ('accuratam designationem') of the animal made after 'an elegant engraving he just got from Spain'.[60] Harms and Heß state that 'Camerarius verweist hier auf eine neue (bislang nicht bestimmbare) spanische Quelle als Bildvorlage'.[61] Here, again, as he did with respect to Gesner, Camerarius suppressed his intermediate source. His *pictura* was modelled on an engraving made by the Dutch artist Philip Galle (1537–1612, born and first active in Haarlem, moved 1570 to Antwerp) in 1586, which depicted another Indian rhino which came to Portugal and Spain [Fig. 3.16]. The animal, baptized Abada, was first kept by the Portuguese kings Sebastian I and Henry I (1577–1580), and later by Philip II of Spain (1580–1588). A courtier of Philip, Joannes Moflinius, who had ordered an image of the animal (probably a drawing), returned to the Southern Low Countries; he gave it to Galle, who made the engraving in 1586. It was Galle himself who told the story of the genesis of the image in an inscription that accompanied the engraving ('PHILIPPUS GALLAEUS SPECTATORIBUS S<ALUTEM>'). Camerarius gave Galle's engraving to Johann Siebmacher, and he himself used Galle's inscription for building a claim to have received a new engraving from Spain (which in fact came from Antwerp).

A very important feature of the printed emblem book is the constant combination of the emblems with the Italian *impresa* tradition. In this case, Camerarius reshapes the emblem with the rhino as enemy of the elephant after the *impresa* of Alessandro de' Medici, Duke of Florence (1532–1537) [Fig. 3.17]. This *impresa* was invented for the duke by Paolo Giovio and published by Giovio in his *Dialogo delle imprese*,[62] a work Camerarius frequently used. Through Alessandro's *impresa* the emblem gets a new meaning, and

---

59 We will come back to this later.

60 'Huius accuratam designationem curavimus exprimi ab icone in aes eleganter incisum, ex Hispania nuper allata'.

61 Harms – Heß, facsimile edition 444 (commentary).

62 I use here the edition Lyons, Guillaume Rouille: 1559.

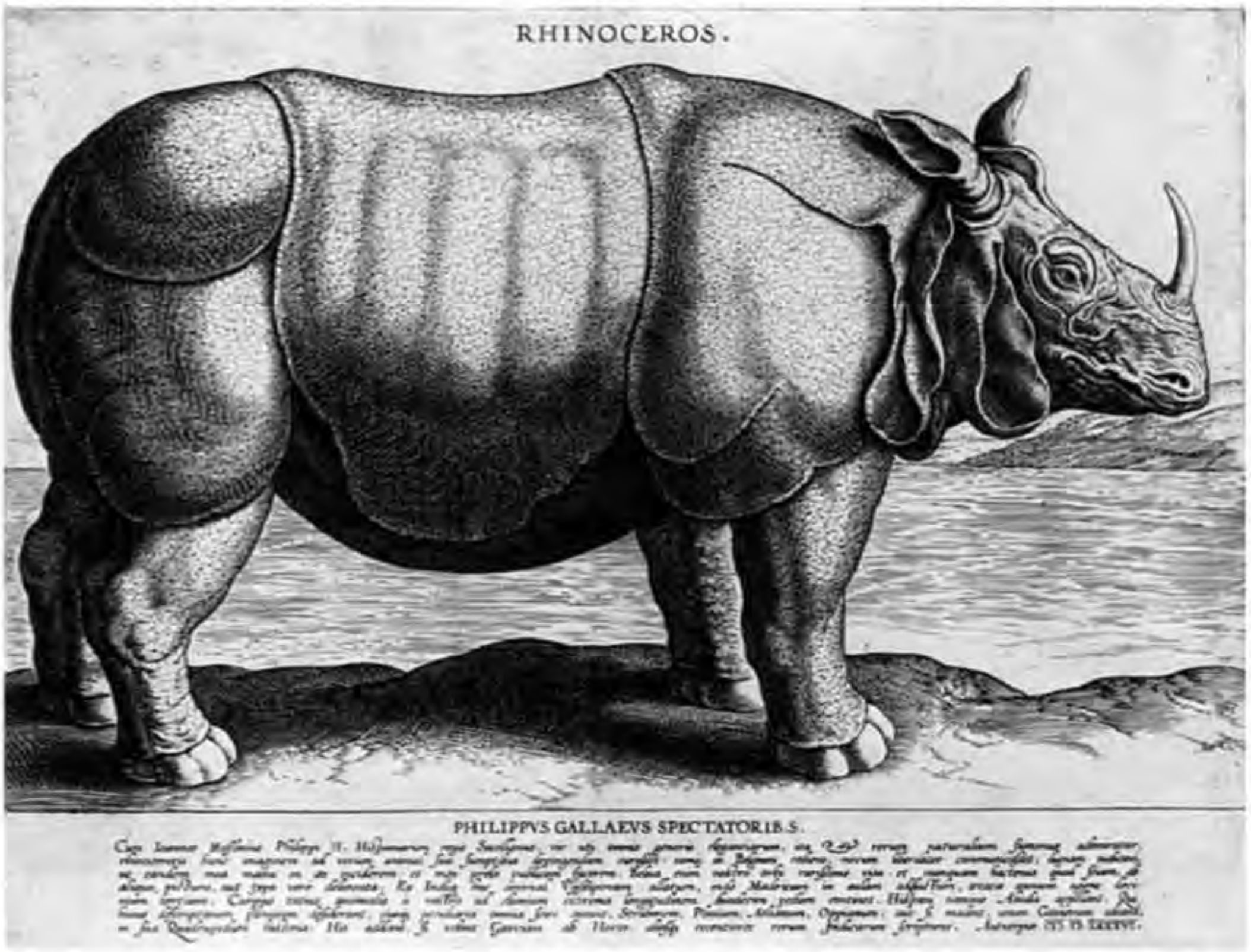

FIGURE 3.16 *Philipp Galle, Indian Rhino. Engraving (Antwerp: 1586).*

this is also expressed in a new motto: 'NON REVERTAR INVLTUS'. The emblem is no longer about general morals (advising the avoidance of vices) or on *providentia*, but solely on princely bravery/courage (*fortitudo*). The prince shall never return defeated from the battlefield. The new motto is modelled after the Spanish *impresa* NON BVELVO SIN VENCER—'I shall not return without victory'. Thus, in the printed version the emblem has turned exclusively into a "mirror of princes" emblem, and it represents knightly bravery. It is now solely about the prince's courage in war: he shall fight for glory and care not for his life; he shall return from the battlefield either as a winner or dead. Giovio describes his *impresa* for Duke Alessandro, which he not only used for the knightly coverture of his horses but also as a breastplate—thus, a kind of medal; the invention, Giovio says, he took from

> [...] the wild beast Rhinoceros, the deadly enemy of the Elephant, which being sent to Rome by Emanuel King of Portugals [...] drowned by hard

FIGURE 3.17 *Impresa of Alessandro de' Medici, from: Giovio Paolo,* Le sententiose Imprese del Monsignor Paolo Giovio et del Signor Gabriel Symeoni ridotte in rima per il detto Symeoni. Al serenissimo duca di Savoia (*Lyons: 1559*) *49*.

fortune, amongst the rocks a litle aboue Porto Venere, (for it was not possible that such a beast could save it self being chayned, albeit it swam miraculously a|mong the sharp rocks, which are all along that coste) yet notwithstanding there was brought to Rome, his true portraiture, and greatnes in February 1515 with information of his nature: the which as Plinie saith, and the Portugals affirme, is to goe and finde the Elephant, and assaulting him, striketh him under the panch with a hard and sharpe horne which it hath growing on his snout, neither doth hee euer depart from his enemy nor from sight, til he hath weried and slaine him, which most often falleth out: vnles the Elephant with his long snout doe take him by the throte, and in closing doe strangle him. The forme of this beast in goodly embrodery serued for the coverture of his Barbarie horses: which ran in Rome for the price or masterie, with this mot in the

> Spanigh tongue: No buelle sin vincer: I warre not but I won. retourne not without victory, according to this verse, 'Rhinoceros nunquam victus ab hoste cedit'. This deuise pleased him so that he caused it to be engraven in his brest plate.[63]

Also, in this case Camerarius did not mention his source (Giovio). Moreover, it appears that Camerarius has taken the Latin line 'Rhinoceros nunquam victus ab hoste redit' not from Martial, but from Giovio's *impresa*. In the Italian text of the *impresa* Giovio does not say who the author of the verse is; Camerarius may have genuinely thought that it was Martial, maybe because the line is part of an epigram in elegiac distich. But the author was actually Giovio himself: In the atrium of his villa at Como, he had a painting of the two largest land animals in life size, accompanied by an epigram explaining their characteristics: 'Humanos elephas retinet sub pectore sensus,/ Rhinoceros nunquam victus ab hoste cedit' ('The elephant has in his breast a human mind/ the rhino never returns from his enemy as the loser').[64] Although Camerarius may well have known Giovio's *Elogia*, he did not consult it in the case of E. 11, 4. But he would not have mentioned Giovio as his source anyway, since he suppressed his name even as the inventor of the *impresa*.

E. 11, 5, VIM SVSCITAT IRA [Fig. 3.18], is connected with 11, 4, with respect to its meaning, *res significans*, and the *pictura* (a rhino fighting with a bear). Although its ultimate source is Martial (*De spectaculis* 22), the zoological *pictura* is typically Plinian, since it focuses on a rare animal and rare animal behaviour, and furthermore refers to a Roman animal show. E. 11, 5, is representative of the book on the quadrupeds, since it is again exclusively a mirror of princes emblem. The previous emblem was about the prince's bravery on the battlefield; E. 11, 5, also demonstrates knightly behaviour, i.e. princely anger

---

63 *The vvorthy tract of Paulus Iouius, contayning a discourse of rare inuentions, both militarie and amorous called imprese VVhereunto is added a preface contayning the arte of composing them, with many other notable deuises.* By Samuell Daniell late student in Oxenforde (London, for Simon Waterson: 1585). (http://quod.lib.umich.edu/cgi/t/text/pageviewer-idx?cc=eebo;c=eebo;idno=a01764.0001.001;node=A01764.0001.001%3A5;seq=70;vid=3275;page=root;view=text).

64 Giovio, *Elogia virorum bellica virtute illustrium veris imaginibus supposita, quae apud Musaeum spectantur, in libros septem digesta* (Florence, Lorenzo Torrentino: 1551), book IV, 206: 'Utriusque beluae (sc. elephantis et rhinocerontis) imagines ex vera naturalique magnitudine picturis expressae in ipso Musaei nostri atrio spectantur, cum hac inscriptione singulis versiculis animantium naturam demonstrante'.

FIGURE 3.18 *Joachim Camerarius the younger*, Symbolorum et emblematum ex animalibus quadrupedibus desumptorum centuria altera [...], *emblem no. 5. Private collection.*

that brings forth strength and power in battles. As in the previous emblem, the rhino represents the prince.

The zoological discussion from E. 11, 4, especially the one on the number of rhinoceros horns, also functions as a basis here. Interestingly, the ultimate source, Martial, *De spectaculis* 22 (which describes a specific animal fight in a show given by Emperor Domitian in the Colosseum), explicitly states that the rhino took the bear 'on its double horn'. Martial meant this literally, and it is clear that he saw an African rhino in the amphitheatre. Camerarius, however, interpreted Martial's words metaphorically, following Gesner's *Historia animalium*. This time, he demonstrates his view that the rhino had only one horn solely in the *pictura*, in which the rhino was again drawn after Philip Galle's engraving from 1586 (thus representing an Indian rhino); naturally, Camerarius does not mention his source, Gesner, this time either. Although Camerarius cites Martial, *De spectaculis* 22, in extenso, he did not derive the emblem from this source, but adopted it from Pierio Valeriano's *Hieroglyphica*,[65] where he found not only the basic emblematical meaning and the idea for the *pictura* [Fig. 3.19], but also Martial's text. That Camerarius took Martial's text from Valeriano appears from the fact that he quotes the phrase on the double horn as 'gemino cornu', whereas Martial has 'cornu gemino'. Camerarius, however, suggests in his prose text that he found Martial's verses independently.[66]

In his prose text, however, Camerarius does mention Valeriano, but only as the source of part of the emblematical meaning, and probably above all because he did not agree with him about the ultimate relevance of the emblem with respect to his "mirror of princes". Although Camerarius admits that princely anger makes sense, he gives more credit to the opposite virtue, *moderatio*. With this aim in mind, he connects his emblem once more with an *impresa*, QVO MAIOR, EO PLACABILIOR ('The greater a man, the quicker he calms down'). It is worthwhile to notice that this time Camerarius used a peculiar and curious collection of devices, Nicolaus Reusner's *Symbola imperatoria* (1588), in which the German jurist and emblematist construed a kind of phantastic prehistory of the *imprese*, namely of the Roman emperors from Caesar to Constantine the Great (none of whom, of course, used *imprese* or

65 Valeriano, *Hieroglyphica* 11, 20 ("De rhinoceronte").

66 'Quod etiam ex Martiale colligitur, qui hoc de eo epigramma composuit: sollicitant [...]' ('One can conclude this also from Martial, who on the same topic composed the following epigram [...]').

FIGURE 3.19 *Battle between rhino and bear, from Pierio Valeriano*, Hieroglyphica seu de sacris Aegyptiorum [...] (*Lyons, Paul Frelon: 1602*).

devices).[67] Reusner had presented QVO MAIOR, EO PLACABILIOR as the *impresa* of Emperor Aurelian (270–275).[68] Unlike the previous emblem, here Camerarius does not mention the princely "owner" of the impresa, but adds Euripides as an alternative authority: 'also Euripides magnificently advises the

67 Reusner Nicolaus, *Symbolorum imperatoriorum classis prima, qua symbola continentur imperatorum ac Caesarum Romanorum Italicorum, a Gaio Iulio Caesare usque ad Constantinum magnum* (Frankfurt a.M., Johann Spieß: 1588).

68 Ibidem, book 1, symbolum 50. Reusner derived the *impresa* from *Historia Augusta, Aurelianus* 22, 5–6.

same'. As one may suspect, Camerarius's source was in fact not Euripides himself, but Reusner.

The Leopard's Trick

E. 11, 37, shows another exotic animal, one that has a rare outward appearance ('varia'—'mottled')[69] and displays curious behaviour: the African leopard (*Panthera pardus pardus*). According to Camerarius's ordering principle (from bigger to smaller size), the leopard comes after the horse (E. 11, 30–33) and the tiger (E. 11, 35–36). More than half of Camerarius's emblematic prose text is dedicated to zoology, and this part very much reflects Gesner's method in the *Historia animalium*: it deals first with the name(s) of the animal, second with its outward appearance, third with its habitat/range, and fourth with its behaviour. Camerarius's most important sources were indeed Gesner's zoology,[70] but alongside it Pierio Valeriano[71] and Pliny.[72] Camerarius derives the emblematical meaning (*res significata*) from the animal's behaviour, the "leopard's trick": the leopard was thought by the ancient zoologists to entice other animals with his pleasant odour, make them come to him, and trick them by hiding his face behind the leaves of a tree (his terrifying face was supposed to reveal his intentions as a predator).

The *pictura* repeats that of an Altdorf prize medal from the year 1593 [Fig. 3.20][73] which was given to baron Heinrich von Wildenfels. Camerarius also took over the medal's motto, ALLICIT VT PERIMAT ('he [i.e. the leopard] entices in order to kill'). In his oration, Baron Heinrich von Wildenfels interpreted the emblem with respect to school education. He regarded the leopard as the image of seductive sensual lust, to which the pupil should never yield. If he does so, he will not succeed, but perish (at least intellectually and spiritually). Camerarius had read von Wildenfels's *oratio*; however, he did not use it for

69 Pliny says that 'tigers and leopards are almost the only mottled animals', *Naturalis historia* VIII, 62: 'Panthera et tigris macularum varietate prope solae bestiarum spectantur'. This is, of course, not at all true; Pliny's authority was nevertheless acknowleged as proof of the animals' rare features.

70 Gesner, *Historia animalium* I, p. 935–948, chapter "De panthera seu pardali, pardo, leopardo".

71 Valeriano, *Hieroglyphica* XI ("De panthera").

72 *Naturalis historia* VIII, 62–63.

73 Stopp, *The Emblems of the Altdorf Academy* 144–145 (no. 65).

FIGURE 3.26 *Saiga tartarica.*
PHOTO BY ANDREY GILJOV AND KARINA KARENINA.

With respect to the odd zoological 'facts', it appears that Camerarius was not very sceptical; he was eager to believe them because they contributed to the Plinian principles of rarity, amazement, and the intelligence of animals. Thus, even if Camerarius had no Plinian rarities at hand, he construed them himself. When Camerarius lacked classical *auctoritates* he used other means of authorization: in the case of E. II, 44, he emphasized that he had received a 'true image' ('vera imago') of the animal, and that both the image and information had been given to him by 'trustworthy men'—'a fide dignis viris'.

Conclusion

In his emblem book on the quadrupeds Camerarius very much worked along Plinian lines, and he took over Pliny's zoological concepts, above all his focus on rarities (including a certain preference for exotic creatures) and his tendency to discover a kind of human intelligence or behaviour in the animals. In the prose texts of the printed emblems there is generally more emphasis on zoological information. In general, Camerarius mentions more than a single

fact of nature and gives more zoological information than is strictly necessary for the understanding of the emblem. Strengthening the rare aspects of nature is used as a means to increase the didactic efficiency of the emblem book. In enhancing the zoological contents Camerarius has primarily used Gesner's *Historia animalium*. He not only exploited him as a sourcebook of zoological facts, but also took over Gesner's personal findings, his manner of presentation, and, more than once, his illustrations as well. Gesner had been hailed by his contemporaries as the new Pliny; for the emblem author Camerarius he even functions as a kind of Super Pliny: behind Camerarius's typically Plinian information often stands Conrad Gesner, larger than life. Nevertheless, Camerarius rarely mentioned the Swiss scholar, probably in order to underpin his own personal achievement. Especially with the help of Gesner, Camerarius tried to outdo Pliny. He was proud of presenting more intriguing information than Pliny. In the printed emblems Pliny was still an important source, but in the emblems many times Pliny's name is suppressed or mentioned only as an alternative. Instead of the widely known *Naturalis historia*, Camerarius prefers to present more remote and above all Greek *auctoritates*; this manner of working was probably also caused by a longing to make his own work more impressive. In almost all the emblems, Camerarius worked with intermediary sources he does not mention, and Gesner and Valeriano are among the most important ones. As we have seen, this method led here and there to errors and erroneous conceptions and statements. In general, Camerarius was not very critical with respect to the zoological information he took from Gesner or classical authors, and he made no real effort to replace bookish with empirical information. His eagerness to collect rarities was obviously stronger than his critical mind. On the other hand, Camerarius tried to present convincing engravings with realistic images of the animals; he provided the engraver Siebmacher with examples that corresponded with state-of-the-art-images, and a number of times he succeeded in equipping his emblems with better images than Gesner. In rare cases when Camerarius could not rely on antique authorities or on Gesner, he did not change his zoological principles: he was still in the first place eager to come to the fore with rarities. In this sense he composed a thoroughly Plinian—and more than Plinian—emblematic natural history.

Bibliography

Bargagli Scipione, *Dell' Imprese di Scipion Bargagli gentil'huomo Sanese* [...] (Venice, Francesco Franceschini: 1594).

Bäumer A., *Die Biologie von der Antike bis zur Renaissance*, in eadem, *Geschichte der Biologie*, vol. 1 (Frankfurt a.M. – Bern – New York – Paris: 1991).

Beagon M., *Roman Nature: the Thought of Pliny the Elder* (Oxford: 1992).

Caldwell D., *The Sixteenth-Century Italian 'Impresa' in Theory and Practice* (New York: 2004).

Camilli Camillo, *Imprese illustri di diversi, cio discorsi di Camillo Camilli* [...] (parte prima, Venice, Francesco Ziletti: 1586).

Camerarius Joachim, the younger, *Symbolorum et emblematum ex re herbaria desumtorum centuria una* [...] (Nuremberg, Johann Hofmann: 1590; facsimile edition by W. Harms and U.-B. Kuechen, Graz: 1986).

Camerarius Joachim, the younger, *Symbola et emblemata tam moralia quam sacra. Die handschriftlichen Embleme von 1587*, ed. W. Harms – G. Heß (Tübingen: 2009).

Clarke T. H., *The Rhinoceros from Dürer to Stubbs: 1515–1799* (London: 1986).

Contile Luca, *Ragionamento di Luca Contile sopra la proprietà delle Imprese con le particolari de gli Academici affidati et con le interpretationi et chroniche* [...] (Pavia, Girolamo Bartoli: 1574).

Daly P.M. (ed.), *Companion to Emblem Studies* (New York: 2008).

Dolce Ludovico, *Imprese nobili et ingeniose di diversi prencipi, et altri personaggi illustri nell'arme e nelle lettere* [...], *con le dichiarationi in versi di Ludovico Dolce* (Venice, Francesco Ziletti: 1583).

Domenichi Giovanni, *Ragionamento* [...] *nel quale si parla d'Imprese d'armi e d'amore* [...] (Milano, Giovanni Antonio degli Antoni: 1559).

Drysdall D.L., "Devices as 'Emblems' before 1531", in *Emblematica. An Interdisciplinary Journal for Emblem Studies* 16 (2008) 253–269.

Enenkel K.A.E. – Visser A.S.Q. (eds.), *Mundus emblematicus. Studies in Neo-Latin Emblem Books*, Imago figurata 4 (Turnhout: 2003).

Enenkel K.A.E., "Zur Konstituierung der Zoologie als Wissenschaft in der Frühen Neuzeit: Diskursanalyse zweier Grossprojekte (Wotton, Gesner)", in Enenkel K.A.E. – Smith P.J. (eds.), *Early Modern Zoology. The Construction of Animals in Science, Literature and the Visual Arts*, 2 vols. (Leiden – Boston: 2007), vol. 1, 15–74.

Enenkel K.A.E. – Smith P.J. (eds.), *Early Modern Zoology. The Construction of Animals in Science, Literature and the Visual Arts*, 2 vols. (Leiden – Boston: 2007).

Enenkel K.A.E., "The Neo-Latin Emblem: Humanist Learning, Classical Antiquity, and the Virtual „Wunderkammer"", in Daly (ed.), *Companion to Emblem Studies* 129–154.

Enenkel K.A.E., "Die humanistische Kultur Coimbras als Wiege des emblematischen Kommentars: Sebastian Stockhamers Alciato-Kommentar für João Meneses Sottomayor (1552)", in Berbara M. – Enenkel K.A.E. (eds.), *Portuguese Humanism and the Republic of Letters* (Leiden – Boston: 2011) 149–218.

Enenkel K.A.E. – Smith P.J. (eds.), *Zoology in Early Modern Culture. Intersections of Science, Theology, Philology, and Political and Religious Education* (Boston – Leiden: 2014).

Enenkel K.A.E., "Die antike Vorgeschichte der Verankerung der Naturgeschichte in Politik und Religion: Plinius' Zoologie und der römische Imperialismus", in Enenkel K.A.E. – Smith P.J. (eds.), *Zoology in Early Modern Culture. Intersections of Science, Theology, Philology, and Political and Religious Education* (Boston – Leiden: 2014) 15–54.

Enenkel K.A.E., "Emblems", in Ford Ph. – Bloemendal J. – Fantazzi Ch. (eds.), Brill's *Encyclopaedia of the Neo-Latin World*. Micropaedia (Leiden – Boston: 2014) 968–970.

Gesner Conrad, *Historia animalium* I [...] (Zurich, Christopher Froschauer: 1551).

Giovio Paolo, *Dialogo dell'imprese militari et amorose* (Como, n.p.: [1551]).

Giovio Paolo, *Dialogo dell'imprese militari et amorose* (Rome, Antonio Barre: 1555).

Giovio Paolo, *Dialogo dell'imprese militari et amorose* (Venice, Gabriel Giolito de' Ferrari: 1556).

Giovio Paolo, *Dialogo dell'Imprese militari et amorose di Monsignor Giovio* [...] *et del Gabriel Simeoni Fiorentino. Con un ragionamento di M. Lodovico Domenichi, nel medesimo sogetto* [...] (Lyons, Guillaume Rouille: 1574).

Giovio Paolo, *Dialogo dell'imprese militari et amorose*, ed. M.L. Doglio, Biblioteca del Cinquecento 4 (Rome: 1978).

Giovio Paolo, *Elogia virorum bellica virtute illustrium veris imaginibus supposita, quae apud Musaeum spectantur, in libros septem digesta* (Florence, Lorenzo Torrentino: 1551).

Giovio Paolo, *Le sententiose Imprese del Monsignor Paolo Giovio et del Signor Gabriel Symeoni ridotte in rima per il detto Symeoni. Al serenissimo duca di Savoia* (Lyons, Guillaume Rouille: 1561).

Giovio Paolo, *Ragionamento sopra I motti, et disegni d'arme et d'amore, che comunemente chiamano Imprese* (Venice, Giordano Ziletti: 1556).

Giovio Paolo – Domenichi Lodovico, *Ragionamento sopra I motti et disegni d'arme et d'amore, che comunemente chiamano imprese* (Milan, Giovann' Antonio de gli Antoni: 1559).

Hablot L., *La devise, mise en signe du prince, mise en scène du pouvoir. Les devises et l'emblématique des princes en France et en Europe à la fin du Moyen Age*, 2 vols., Ph.D. dissertation (University of Poitiers: 2001).

Hablot L., "La devise, un nouvel emblème pour les princes du XV^{e} siècle", in Taburet-Delahaye E. (ed.), *La création artistique en France autour de 1400*, Rencontres de l'École du Louvre 19 (Paris: 2006) 177–192.

Harms W. – Heß G. (eds.), *Camerarius, Symbola et emblemata tam moralia quam sacra. Die handschriftlichen Embleme von 1587* (Tübingen: 2009).

Henkel A. – Schöne A. (Hrsg.), *Emblemata. Handbuch zur Sinnbildkunst des XVI. und XVII. Jahrhunderts* (Stuttgart: 1967/ 1996).

Hill G.F., *Medals of the Renaissance* (Oxford: 1920).

Hill G.F., *A Corpus of Italian Medals of the Renaissance before Cellini* (London: 1930; reprint, London: 1984).

Hulsius Levinus (ed.), *Emblemata anniversaria Academiae Altorfinae studiorum iuventutis exercitandorum causa proposita et variorum orationibus exposita* (Nuremberg, Christoph Lochner, Levinus Hulsius: 1597); 2nd edition: *Emblemata anniversaria Academiae Noribergensis, quae est Altorffii: studiorum iuventutis exercitandorum caussa* [sic] *inde ab anno Christi 1577 usque ad annum 1616 proposita; oratiunculis eruditis et nervosis in Panegyricis Academicis explicata atque in IV Decadas distributa. Opus philologicum multiplici doctrina insignique rerum et materiarum varietate, instar cornu copiae, iucundissimum et cuiusque professionis hominum utilissimum* (Nuremberg, Abraham Wagemann: 1617).

Jahn I. (ed.), *Geschichte der Biologie* (Hamburg: 2004; after 3rd edition Jena: 1998).

Jahn I., *Grundzüge der Biologiegeschichte* (Jena: 1990).

Klein R., *La théorie de l'expression figurée dans les traités italiens sur les 'Imprese' 1555–1612* (1957), reprint in Klein R., *La forme est l'intelligible. Écrits sur la Renaissance et l'art moderne*, ed. A. Chastel (Paris: 1970; reprint, Paris: 1983) 125–150.

Landwehr J., *French, Italian, Spanish and Portuguese Books of Devices and Emblems 1534–1827: A Bibliography*, Bibliotheca Emblematica 6 (Utrecht: 1976).

Lippincott K., "The Genesis and Significance of the Fifteenth-Century Italian *Impresa*", in Anglo S. (ed.), *Chivalry in the Renaissance* (Woodbridge: 1990) 49–76.

Macdonald D. (ed.), *Enzyklopädie der Säugetiere* (Königswinter: 2003; orig. engl., Oxford: 2001).

Maffei S., "'Iucundissimi emblemi di pitture'. Le imprese del Museo di Paolo Giovio a Como", in Bolzoni L. – Volterrani S. (eds.), *Con parola breve e con figura. Emblemi e imprese fra antico e moderno* (Pisa: 2008) 135–183.

Maué H., "Wundersame Verhaltensweisen von Tieren. Altdorfer Prämienmedaillen, die Emblembücher des Camerarius und die ‚Naturalis Historia' Plinius' des Älteren", in *Vom Ansehen der Tiere*, Kulturgeschichtliche Spaziergänge im Germanischen Nationalmuseum 11 (2009) 71–82.

Nova A., "Dialogo dell'imprese: la storia editoriale e le immagini", in *Atti del Convegno Paolo Giovio. Il rinascimento e la memoria, Como 3.–5.6.1983*, Raccolta Storica, Pubblicata dalla Società Storica Comense 17 (Como: 1985) 73–92.

Ogilvie B., *The Science of Describing. Natural History in Renaissance Europe* (Chicago – London: 2006).

Papy J., "Joachim Camerarius's Symbolorum et emblematum Centuriae Quatuor: From Natural Sciences to Moral Contemplation", in Enenkel K.A.E. – Visser A.S.Q. (eds.), *Mundus emblematicus. Studies in Neo-Latin Emblem Books*, Imago figurata 4 (Turnhout: 2003) 201–234.

Paradin Claude, *Devises Heroïques* (Lyons, Jean de Tournes and Guillaume Gazeau: 1557; reprint, Brookfield: 1989).

Pavoni R. – Nova A., "Dialogo delle imprese amorose e militari", in Pavoni R. (ed.), *Paolo Giovio 1483–1983 quinto centenario della nascita. Collezione Giovio, le immagini e la storia*. Como, Musei civici. Piazza Medagli d'oro, 3.6.–15.12.1983 (Como: 1983) 52–55.

Peil D., *Das Neue ist das Alte: Antike Traditionen in den Emblembüchern des Joachim Camerarius* (Leipzig: 2004).

Pliny the Elder,—*Naturkunde. Lateinisch—deutsch. Buch VIII. Zoologie: Landtiere*, ed. and trans. R. König – G. Winkler (Kempten: 1976).

Pliny the elder, *Natural History*, trans. H. Rackham – W.H.S. Jones – D.E. Eichholz, 10 vols., The Loeb Classical Library 330, 352, 353, 370, 371, 392, 393, 394, 418, 419 (Cambridge, MA – London: 1940–1944; reprint, ibidem: 1956–1966).

Recknagel H., *Die Nürnbergische Universität Altdorf und ihre großen Gelehrten* (Altdorf: 1998).

Rée P.J., "Sibmacher, Hans oder Johann", in *Allgemeine Deutsche Biographie* 34 (1892) 136–138.

Reusner Nicolaus, *Symbolorum imperatoriorum classis prima, qua symbola continentur imperatorum ac Caesarum Romanorum Italicorum, a Gaio Iulio Caesare usque ad Constantinum magnum* (Frankfurt a.M., Johann Spieß: 1588).

Russell D.S., *The Emblem and the Device in France*, French Forum Monographs 59 (Lexington: 1985).

Salzgeber D., *Albrecht Dürer: Das Rhinozeros* (Reinbek: 1999).

Scholz B.F., *Emblem und Emblempoetik. Historische und systematische Studien*, Allgemeine Literaturwissenschaft—Wuppertaler Schriften 3 (Berlin: 2002).

Seeck G.A., "Plinius und Aristoteles als Naturwissenschaftler", *Gymnasium* 92 (1985) 419–434.

Steier A., *Aristoteles und Plinius. Studien zur Geschichte der Zoologie* (Würzburg: 1913).

Steier A., *Der Tierbestand in der Naturgeschichte des Plinius* (Würzburg: 1913).

Stopp F.J., *The Emblems of the Altdorf Academy. Medals and Medal Orations 1577–1626* (London: 1974).

Symeoni Gabriele, *Discours Francois, Toscan, et Latin sur la cognaissance des esprits et desseings des hommes, suivant un Dialogue Italien imparfaict des Devises amoureuses et militaires de Monsieur Paul Iovio* (Lyons, n.p.: 1556).

Symeoni Gabriele, *Tetrastiques faicts sur les Devises du Seigneur Paulo Giovio et de Messire Gabriel Simeon. Pour servir en Verrieres, Chassis, Galeries, et Tableaux, ainsi qu'il plaira au Lecteur de les accomoder* (Lyons, Guillaume Rouille: 1560).

Tacke A., "Sibmacher, Hans", in *Neue Deutsche Biographie* 24 (Berlin: 2010) 305.

Valeriano Pierio, *Hieroglyphica sive de sacris Aegyptiorum literis commentarii*, afterword by D. Peil (Basel: 1556; reprint, Hildesheim: 2005).

Valeriano Pierio, *Hieroglyphica seu de sacris Aegyptiorum* [...] (Lyons, Thomas Soubron: 1594).

Vegetti M., "Zoologia et antropologia in Plinio", in *Plinio il Vecchio sotto il profile storico e letterario: Atti del Convegno di Como 1979* (Como: 1982) 117–131.

Wenning S., *Joachim II. Camerarius (1534–1598). Eine Studie über sein Leben, seine Werke und seine Briefwechsel* (Diss. Würzburg: 2013, Duisburg – Cologne: 2015).