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*COMMENTATIO TERTIA, NUMMARIA*  
BY JOHANN PETER TITIUS  
A CONTRIBUTION TO THE KNOWLEDGE  
OF ANCIENT GREEK AND ROMAN  
COINS IN THE 17TH-CENTURY GDAŃSK  
ACADEMIC GYMNASIUM<sup>1</sup>

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**Abstract:** Johann Peter Titz (Lat. Titius, 1619-1689), a professor of rhetoric at the Gdańsk Academic Gymnasium is known as an author of speeches, poems, rhetorical and historical writings. However, in 1676 he published an important (though less known) work on numismatics: *Commentatio tertia, nummaria, de pecunia vetere ac nova, abaco tabulisque exhibita* (*Third, Monetary Commentary, on Old and New Money, Presented on a Plate and in Tables*) as a significant part (320 pages) of a collection of treatises of more than 1,000 pages entitled *Manuductio ad excerpendum*. The aim of the paper is to present the content of the *Commentatio tertia, nummaria* and its ancient and early modern sources. The overall approach to the Titius' study shows its practical nature (almost a third of the entire argument is devoted to attempts to reconcile the values of various ancient denominations and accounting units with contemporary coins) which seems to suggest that it might have been used by students viewing the coin collection in the Gdańsk library. A more thorough examination of the *Commentatio* alongside an analysis of the accounts of the seventeenth-century Gdańsk writer's numismatic collection may contribute to determining to what

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extent numismatics were a permanent feature in the gymnasium curriculum in Gdańsk in the latter seventeenth century, and to what extent the youth (*juventus*) of the Academic Gymnasium, to whom Titius was addressing his work, really wanted to and could identify ancient Greek, Roman and Jewish coins.

**Keywords:** Johann Peter Titius; Johann Fiedrich Gronovius; Greek and Roman denominations; Sestertius; 17th-century Numismatics

The most important intellectual center of seventeenth-century Gdańsk (Germ. Danzig), the largest and richest city of the Polish–Lithuanian Commonwealth at that time, was its gymnasium, founded in 1558, and in 1580 promoted to the rank of *Gymnasium Academicum*. Its status was increased by the establishment in 1596 of the closely associated Library of the Senate of Gdańsk (*Bibliotheca Senatus Gedanensis*), which included an extensive collection of works by the Italian humanist Giovanni Bernardino Bonifacio, the Marquis of Oria. The city authorities' conscious policy of attracting the best-educated professors to the gymnasium was also not insignificant<sup>2</sup>. Because the rector's functions were usually entrusted to theologians, antiquarian education in its broad sense usually rested on the shoulders of a professor of rhetoric, who at the same time acted as an official city speaker, preparing Latin speeches for special occasions. From 1630 until his untimely death in 1652, the professor of rhetoric in Gdańsk was Johann Mochinger, an outstanding erudite educated in Wittenberg, Leiden and Strasbourg, among other places<sup>3</sup>, who paid little attention to numismatics in his works. After Mochinger, the prestigious chair of rhetoric was assumed by his former student, Johann Peter Titz (Lat. Titius<sup>4</sup>), of Legnica. Born in 1619, this native of Legnica was a pupil at the Gdańsk Athenaeum in the years 1637–1639, then studied law and philosophy in Rostock, and from 1641, on a scholarship from the Mayor (Germ. Burgermeister) of Gdańsk, Pahl, studied law on his own in Königsberg. He did not complete his studies, and in 1648 returned to Gdańsk to take up the headmastership of the St. Mary's School (Germ. Marienschule), and then from January 1651 also began to teach Latin at the Academic Gymnasium. Perhaps it was his inclusion among the teachers of the renowned *Athenaeum* that made Titius want to finish his studies, and to this end he went to the Netherlands.

<sup>2</sup> See Kotarski 1993 and idem 2008.

<sup>3</sup> See Awianowicz 2016, 71–77.

<sup>4</sup> This Latin form of the name is used in the title and in the entire paper, because Titz himself preferred to use it, and not only in his Latin writings.

Mochinger's death and the proposal to succeed him in assuming the chair of rhetoric nonetheless brought about his return. Despite lacking a scientific degree, Titius stood out for his considerable erudition and great diligence, as well as his extensive contacts in the world of scholars, mainly German and Dutch. He corresponded with, among others, Morhovius, Thomasius, Thielo and, of particular importance to our considerations, Johann Friedrich Gronovius. He also promoted the writings of Justus Lipsius, Gerardus Vossius and Jan Amos Komenský in his teaching.<sup>5</sup>

Apart from speeches, poems, rhetorical and historical writings, Titius's rich body of work includes two separate works dedicated mainly to ancient coins: *De re nummaria antiquorum* (Gdańsk: Rhetius 1670) and *Abacus nummarius pecuniae veteris et novae* (Gdańsk: Rhetius 1673). The most important and extensive work by the Gdańsk professor is an extended version of *Abacus nummarius* entitled *Commentatio tertia, nummaria, de pecunia vetere ac nova, abaco tabulisque exhibita* (*Third, Monetary Commentary, on Old and New Money, Presented on a Plate and in Tables*),<sup>6</sup> which is part of a collection of treatises of more than 1,000 pages (496 + 538, separately numbered) entitled *Manuductio ad excerptandum* (*Guide to preparing excerpts*), containing materials created mainly in the 1660s and 70s, and published together in the Gdańsk publishing house of David Fridericus Rhetius in 1676 (Titius 1676<sup>7</sup>). The entire 'guide' is divided into a main part that comprises not only, as the title reads, *observationes de vitiis Latini sermonis et locutione emendata* (Remarks on Latin language Errors and Corrected Utterances), but also illustrations of findings on spelling, the use of various Latin words and grammatical constructions, erudite quotations from ancient and modern authors, and *similia* in Greek and in German.<sup>8</sup> Afterwards, there are three separate dissertations (*dissertationes*): *I Didactica, De adminiculis linguae latinae, praecipue Comenianis* (Titius 1676, 1–164) (*The first – Didactic, on Latin language Guidance, Especially Comenius*), *II Prosodiaca, de stator et statim, aliisque cognatis* (Titius 1676, 164–192) (*The Second – Dedicated to Prosody, About "Standing Still" and "Immediately" and the Similar*), and finally, of most interest to us here: *Commentatio tertia, nummaria, de pecunia vetere ac nova, abaco tabulisque exhibita* (Titius 1676, 193–513) (as per the title page, at the beginning of

<sup>5</sup> See Mokrzecki 1997, 369–370 and Nadolski 1964.

<sup>6</sup> Cf. numismatic works by Titius in Lipsius 1801, 398–399.

<sup>7</sup> See Pl. 1: 1 – photo of a page of that edition.

<sup>8</sup> Titius 1676, 1–496. See especially an interesting chapter devoted to ancient critical notes – Titius 1676: 389–391.

the ‘commentary’ title itself: *Commentatio tertia, nummaria: explicatio abaci sive tabulae nummariae generalis*<sup>9</sup>). This last one, and the most interesting for us, is also clearly longer than the ‘didactic’ and ‘prosodic’ parts, which together occupy 192 pages, while the ‘monetary commentary’ takes 320 pages and two tables with the conversion of ancient denominations (Pl. 1: 2-3<sup>10</sup>).

The volume alone of *Commentatio tertia, nummaria* seems to attest to the author’s genuine interest in numismatics. This is also evidenced by the introduction to this part, where after saying that ‘so many have written so much about ancient coinage’ (p. 193: ‘de re nummaria antiquorum tam multa a multis scripta sunt’), Titius justifies his taking on the topic by arguing its ‘goodness and usefulness for the young’ (p. 194: ‘Juventutis potissimum nostrae bono ac commodo’), because ‘knowledge about ancient coins is of the utmost importance in order to get to know and understand writers, both scriptural and secular’ (pp. 193–194: ‘cum sit REI NUMMARIAE VETERUM cognitio ad intelligendos Scriptores, tam sacros, quam civiles, summe necessaria’). The use of emphasis in uppercase REI NUMMARIAE VETERVM clearly shows the perspective of the entire work, in which the exact ancient denominations are most important, but so too is their relationship (especially drachms and denarii) to the seventeenth-century thalers and ducats (but also to lower modern denominations), as Titius points out a little further on in the introduction (pp. 197–199). Even in the introduction, he also pays tribute to his two great predecessors who studied ancient denominations: Guillaume Budé (Latin: Budaeus, 1468–1540) as the author of *De asse et partibus eius* (first edition 1515), ‘the first who spoke on and presented this subject’ (p. 195: ‘princeps hujus Doctrinae effator et vindex’), and Johann Friedrich Gronovius (1611–1671) as the author of *De sestertiis commentarius* (first edition 1643), a scholar who was not only ‘illustrious’, but also ‘very favorable’ to the Gdańsk author (p. 198: ‘celeberrimum, nobisque faventissimum’).

Then, the Gdańsk author introduces the following chapters:

– I: *As primum aes rude, libra appensum* (*As – initially rough bronze, weighing a pound*) – pp. 200–212;

<sup>9</sup> There are no titles to the *commentationes* on the title engraving designed by Andreas Stech – see Pl. 1: 1. In the years 1670–1672 early versions of some chapters of the numismatic treatise were published by Rhetius with public *orationes* by Titius’ students (see Gdańsk PAN Library, sing. From 17393, 49 (81695), 52 (83059) and 53 (83060)).

<sup>10</sup> Cf. the early version of the *Abacus sive tabula nummaria generalis* in Titius 1670 Pl. 3: 1.

- II: *Aes signatum et ejus notae* (stamped bronze and its markings) – pp. 212–218;
- III: *Asses aurei, libriles* (Gold asses, weighing a pound) – pp. 219–221;
- IV: *Assis Partes quaedam. Semis* (Particular fractions of an As: semis) – pp. 221–226;
- V: *Assium plurium nomina: Nimeri; numerandi ratio* (Names of multiples of the As: numbers; counting methods) – pp. 226–233;
- VI: *Aeris recondendi et expendendi molestiae* (Problems of storing and issuing bronze) – pp. 233–236;
- VII: *Argentum signatum. Denarius drachmae comparatus. Quinarius. Sestertius. Libella, sembella, teruncius. Nummi depravati, plumbei* (stamped silver. The denarius, comparable to the drachma. Quinarius, sestertius, libella, sembella, teruncius. Spoiled and lead coins) – pp. 236–354;
- VIII: *Signa, sive nota argenti* (Marks or impression of silver sc. coins) – pp. 254–257;
- IX: *Pondera et assis partes: de asse item ipso libraque et mina* (Weights and fractions of the As: on the As, and thus the pound and the mina) – pp. 257–294;
- X: *Assis pondus et post etiam pretium imminutum* (The weight of the As, and then also reduced value) – pp. 294–299;
- XI: *De nummo aureo Romano, stateribus item Atticis, Daricis, Philippeis* (On Roman gold coinage, and on Attic staters and darics and Philippian staters) – pp. 299–314;
- XII: *De sestertiis in genere* (On sestertii in general) – pp. 314–316;
- XIII: *Sestertius nummus. Numerandi ratio. Seorsum de mille* (The sestertius coin. Counting method. On thousands treated separately) – pp. 316–320;
- XIV: *Sestertia* (1000 sestertii) – pp. 320–327;
- XV: *Decies sestertium* (10 000 sestertii) – pp. 327–336;
- XVI: *De talentis, minis, drachmis* (On talents, minas, drachms) – pp. 336–345;
- XVII: *De sielo, mina, talento Hebraeorum* (On the Hebrew shekel, mina and talent) – pp. 345–356;
- XVIII: *Nummorum materia; bonitas; pondus; character; pretium* (The material from which coins were made; originality<sup>11</sup>; weight; character; value) – pp. 356–361;

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<sup>11</sup> Titius' text clearly suggests such a meaning for the Latin term *bonitas* – see especially Titius 1676, 357.

– XIX: *Comparatio nummorum: ubi drachmae primum et denarii veterum ad coronatos, scutatos, Philippeos, ducatonos, itemque ad thaleros nostros imperiales revocantur* (A comparison of coins, where ancient drachms and denarii are first referenced to coronati, scudi, philippeans and ducats, as well as to our imperial thalers) – pp. 361–373;

– XX: *Monetae hodiernae minores cum drachmis et denariis antiquis, quaedam etiam inter se conferuntur* (Today's smaller denomination coins are compared to antique drachms and denarii) – Titius attempts to compare the value of ancient coins against, among others, common Polish trojaks, półtoraks and groschen – pp. 373–388;

– XXI: *Assis Romani, prioris et posterioris, ejusque partium comparatio cum nummis nostris* (Comparisons of the earlier and later Roman as, and its fractions, against our coins) – pp. 388–399;

– XXII: *Chalci et oboli Attici ad nummos nostros relati* (Attic obols and cholkoï against our coins) – pp. 400–406;

– XXIII: *Sestertii cum nummis nostratibus comparati* (Sestertii compared against our coins) – pp. 406–417;

– XXIV: *Denarius Romanus et drachma Attica rationibus nostris accommodantur* (The Roman denarius and the Attic drachm adjusted according to our estimates) – pp. 417–423;

– XXV: *Didrachmum, tetradrachmum, stater Atticus, siclus argenteus Hebr(aeus) comparantur* (A comparison of the didrachm, the tetradrachm, the Attic stater and the silver Jewish shekel) – pp. 423–427;

– XXVI: *Minae Atticae et librae Romaniae ad drachmas et denarios, ducatonos ac thaleros revocantur* (Attic minas and Roman pounds in relation to drachms and denarii, ducats and thalers) – pp. 427–428;

– XXVII: *Talenta ducatonibus et thaleris aestimantur* (Talents valued against ducats and thalers) – pp. 428–431;

– XXVIII: *Sestertia ducatonibus et thaleris censentur* (1,000 sestertii valued against ducats and thalers) – pp. 431–444;

– XXIX: *Decies sestertium et cognata per ducatonos et thalares explicantur* (An explanation of 10,000 sestertii using ducats and thalers) – pp. 444–458;

– XXX: *Aurum aestimatum* (Estimating the value of gold) – pp. 458–468;

– XXXI: *Census Servii explicatus* (Servius' census explained) – pp. 468–480;

– XXXII: *Stipendia militum Romanorum* (Roman soldiers' wages) – pp. 480–507;

– XXXIII: *Conclusio (Conclusion)* – pp. 507–513.

There is a certain order to the structure itself: in chapters I–XI following the famous numismatic passage in *Natularis historia* of Pliny the Elder, chronological order predominates (33, 42–47): as Pliny mentions (*NH* 33, 43), after the enigmatic signed bronze (*aes*) of King Servius Tullius, the Romans used unworked nuggets called *aes rude*, from which Titius also begins his discussion. He then introduces silver coinage, which is identified according to Plinius (*NH* 33, 44) with the denarius, and then gold denominations, because according to the Roman author (*NH* 33, 47) the aureus was introduced 62 years after the silver denomination (pp. 299–300<sup>12</sup>). Within the chapters, however, chronology takes a back seat, and the Gdańsk scholar first introduces the term *solidus* (p. 303), identifying it according to Isidore of Seville with the aureus, to then discuss not only Greek gold staters, but also Persian darics (*Daricus Persicus* – p. 305). Although the sestertius was already introduced in Chapter VII as part of the denarius-based monetary system (as Titius himself recalls [p. 313]), from chapter XII onwards this denomination is mainly used to reconstruct the imperial monetary system in which the sestertius had a role in accountancy. An analysis of various terms denoting multiples of the sestertius fills chapters XIII–XV. Chapter XVI is dedicated to the accountancy units used in the Greek world, while Chapter XVII treats both the denominations and the accountancy units used in ancient Judea. Titius records the Jewish monetary units or bullion weights in the later part of the treatise also (e.g. the ‘Judaic gold mina’ – p. 465: *mina auri Judaeorum*). He probably does this as a professor of the Protestant Athenaeum, emphasizing issues of importance to interpreting the Bible and reading commentaries on it. Chapter XVIII is transitional – drawing mainly on Edward Brerewood’s *De ponderibus and pretiis veterum nummorum*<sup>13</sup>, the Gdańsk scholar draws attention to the periodic processes of devaluing denarii by adding iron (*ferrum*) to the silver (p. 357<sup>14</sup>), as’ relation to the denarius and denarius’ relation to the aureus (p. 359), as well as to the comparison of Roman and medieval denominations struck under Frederic II, King of Italy and

<sup>12</sup> Here Titius uses the Elzevir or other 17th-century edition – cf. Plinius 1635, 340: “aureus nummus post annum LXII percussus est, quam argenteus”. Modern editors (e.g. Ian – Mayhoff 1986; König 1984; Zehnacker 1983) read the same passage (according the Codex Bambergensis) as follows: “aureus nummus post annos LI percussus est quam argenteus”.

<sup>13</sup> Cf. Brerewood 1614, 51-56.

<sup>14</sup> ‘Fuisse qui Argento etiam ferrum misceret’ – in fact, the standard addition to debase denarii and other silver denominations in ancient Greece and Rome was copper or lead.

Holy Roman Emperor (p. 359-360). Meanwhile, Chapters XIX to XXX are an attempt to reconcile ancient monetary systems with denominations in circulation in seventeenth-century Europe. The development of this part of the *Commentatio tertia, Nummaria* by Titius (pp. 361–468) clearly shows what was of particular interest in numismatics to the Gdańsk professor: reconstructing the Greek and Roman monetary systems based on the drachm and the denarius and fractions and multiples thereof, as well as precisely determining individual denominations and comparing them with the seventeenth-century coins of various countries (mainly Poland, German states, Italy and Sweden) in order to answer the question of the purchasing power of the drachm (mainly Attic) and the denarius, and multiples and fractions thereof.

In his collections of ancient and modern monetary systems, he was aware of various Greek weight systems, as evidenced by the table showing the drachm's value in the Attic and Aeginetan–Corinthian system (p. 468 – Fig. 5). Thanks to this, we learn, for example, that the possession of property worth at least 400,000 sestertii (*quadringenta sestertia*), which are the assets required for a Roman to belong to the equestrian order, corresponded to 10,000 ducats or 12,500 thalers (p. 439). However, the Gdańsk scholar does not stop there, for at the same time he indicates a number of places where Roman authors talk about the same census (Suet., *Iul.* 33 and *Aug.* 40,<sup>15</sup> *Iuv.*, 5, 132–134 and 14, 326 and Hor. *Epist.* I 1, 58–59). However, the fact that almost a third of the entire argument is devoted to attempts to reconcile the values of various ancient denominations<sup>16</sup> and accounting units with contemporary coins seems to be a result of a question that troubled not only the Gdańsk professor but also our modern students: ‘What could you buy for that?’

However, the expansion of the numismatic chapters with additional information on the structure of the Roman society (and particularly of republican Rome, where there was a division into six wealth groups that is still ascribed to the mythical King Servius Tullius), and information on the salary of a Roman soldier, was undoubtedly intended to facilitate the reading of the ancient texts.<sup>17</sup> This is facilitated by the introduction of a table (p. 470), whose explanations complete the remainder of

<sup>15</sup> According to modern editions this should be 41.

<sup>16</sup> That was one of the most important questions for early modern numismatists. See the synthesis of the literature on that topic in: de Callataÿ 2017.

<sup>17</sup> Titius formulated this as a postulate already in the praefatio to his treaty (see Titius 1676, 193-194).

the chapter on the *census Servii*. The chapter on wages has a different structure, with Titius using chronological order, starting from a reference based on Florus (I 12, 8) stating that a wage (*stipendium*) was paid to Roman soldiers during the siege of Veii<sup>18</sup> (p. 481), then presenting references he knew of to the payment of wages during the republic (pp. 482–487) and, finally, the regulations of Caesar (pp. 487–489), Augustus (pp. 489–492) and Domitian (pp. 492–496). The data cited by Titius – according to which a legionnaire for Caesar and Augustus received 225 denarii *per annum* (p. 488), and one for Domitian received 300, which corresponded to 37.5 thalers or 30 ducats (p. 495) – were based on an entire series of contemporary authors or 16th-century studies.<sup>19</sup> If we compare these with the findings of contemporary researchers, such as Michael A. Speidel, it turns out that despite the large number of inscriptions and papyri related to the Roman army discovered in the last 300 years, the Gdańsk scholar's findings remain valid.

The author's very thorough query is noteworthy. Throughout the *commentatio*, Titius displays excellent knowledge of sources both epigraphic and literary (besides Pliny the Elder's Natural History, Cicero, Livius, Seneca the Younger, Celsus and Plutarch, he also cites the comedies of Plautus and Terentius and the poetry of Catullus, Horace, Vergil and Martialis, as well as the Gospels and the Old Testament) and a knowledge of many legends about Roman coins. Oftentimes he also mentions modern studies, particularly including *De sestertiis commentarius* by Johann Fiedrich Gronovius, which was mentioned in the introduction to Titius' work. Gronovius' treatise was first published in Deventer in 1643 then significantly expanded and issued in 1656 in Amsterdam by the Elzevirs under the title *De sestertiis seu subsecivorum pecuniae veteris Graecae et Romanae libri IV*. The Gdańsk professor had a great respect for this numismatist, librarian and, perhaps above all, outstanding classical philologist from Hamburg, a publisher of Plautus, Livius, Tacitus and Aulus Gellius, which is reflected not only in the fact that he is invoked alongside Budaeus in the introduction (p. 198) but, above all, in the *Commentatio tertia, nummaria* (pp. 291–294) Titius includes the letter from Gronovius that he received in 1671 (pp. 291–294). The author of *Commentatio tertia, nummaria*, was not slavishly dependent on the professor from Leiden, since, for example,

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<sup>18</sup> According to modern editions this should be I 6.

<sup>19</sup> See Titius 1676, 492, where he gives a long list of his authors: Lipsius, Savilius, Casaubonus, Torrentius, Contareus, Puteanus, Salmasius and Schelius.

alongside the term *sestertius* he much more widely used to the term *sestertia* to denote a thousand sestertii ('mille nummos sestertios'), based not only on Joseph Justus Scaliger, whom he quotes, and with whom Gronovius polemicizes, but also on the older but very erudite and important work of Budaeus (pp. 320–327).

The above, rather cursory review of the content of the *Commentatio tertia, nummaria* does not make it possible to unambiguously assess the place that the Gdańsk professor's work on numismatics has in 17th-century writings. However, juxtaposing his work with the most quoted treatises of Budaeus and Gronovius, we can conclude that Titius' work is clearer: the Gdańsk scholar divides his deliberations into 34 chapters with clearly-distinguished sub-chapters, while the continuous text of the five long books of *De asse et partibus eius* by Budaeus (815 pages in the Gryphius edition cited here) makes them difficult to read without extensive, authoritative indexes, and the first edition of *De sestertiis commentarius* by Gronovius is a continuous and very erudite discourse that is nonetheless based only on ancient sources and betrays the perspective of a classical philologist rather than that of a numismatist.<sup>20</sup> This philologically scholarly perspective is also typical of the much larger edition of *De sestertiis seu subsecivorum pecuniae veteris Graecae et Romanae libri IV*, in which, over 915 pages, Gronovius includes extensive commentaries on ancient authors' passages dedicated to coins, or polemicises with modern authors. In contrast, although erudite and revealing a good knowledge of not only basic antique sources, but also modern studies, the 'numismatic comment' of Titius is undoubtedly more practical. It is quite easy to imagine it as a useful numismatic compendium that would have been gladly used, for example, by students viewing the coin collection in the Gdańsk library, of which the academic gymnasium professor and librarian Samuel Schelguigius wrote in 1677 that it also contained 'antique and contemporary coins'.<sup>21</sup> A more thorough examination of the descriptions of ancient coins referred to in the *Commentatio* alongside an analysis of the accounts of the 17th-century Gdańsk writer's numismatic collection may also allow us to state which ancient coins the Gdańsk professor might indeed have had access to. Research on the work of Titius may also contribute

<sup>20</sup> See Gronovius 1643, 1–135. *De re nummaria dissertatio* by Joseph Justus Scaliger, the book quoted by both Gronovius and Titius, is very similar in form to the first numismatic treatise by Gronovius but, similarly to the book by Budé, is followed by a good index – see Scaliger 1616.

<sup>21</sup> See Schelguigius 1677, 6: 'Non praedicabo nummos antiquos et recentes, liberalitatis Tuae indices'.

to determining to what extent numismatics were a permanent feature in the gymnasium curriculum in Gdańsk in the latter 17th century, and to what extent the youth (*juventus*) of the *Gymnasium Academicum*, to whom Titius was addressing his work, really wanted to and could identify ancient Greek, Roman and Jewish coins.

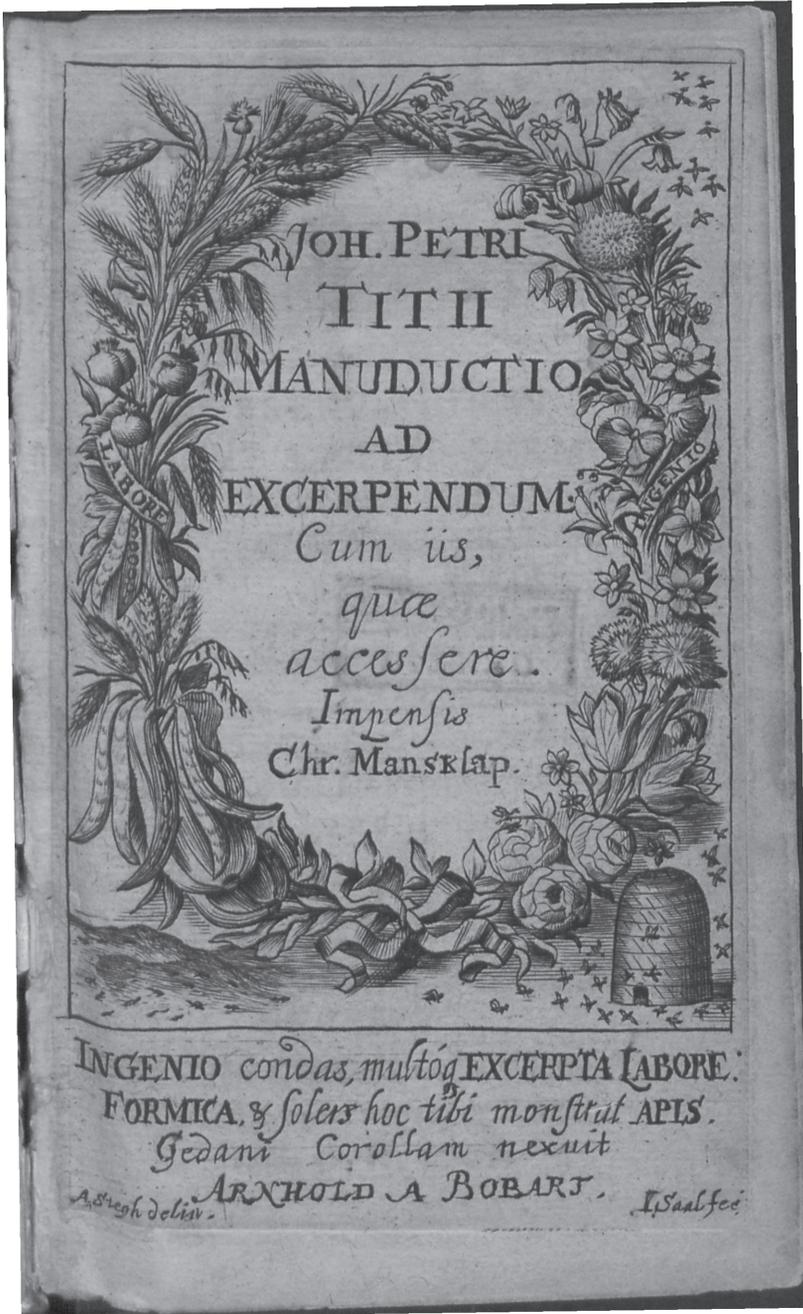
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Pl. 1: 1. The title engraving of Johann Peter Titius' *Manuductio ad excerpendum* designed by Andreas Stech (1676) – sign. Gdańsk PAN Library, Ca 2952 8°



**ABACUS SIVE TABULA NUMMARIA GENERALIS.**

IAS. Nummus æreus libralis: Æris Libra seu Pondo unum; five Unciæ XII, apud Romanos veteres. Hodie Bajoccus. Nobis Gedani, in Prusliã & Poloniã Grossus unus, & Denarioli duo cum tertii Quadrante: i Polnischẽ Groschen/und 2 $\frac{1}{2}$  Pfennige. Silesiã Grossulus unus, & semis:  $\frac{1}{2}$ . Underthalb Schleßische Großstein. Saxonibus tres &  $\frac{1}{2}$  Denarioli Misnici, five 3 $\frac{1}{2}$  Meßn. Pfennatger Asfes 2 $\frac{1}{2}$  I SESTERTIUS NUMMUS. Asfes 118, id est, bini cum semisse: unde Nota HS. Sesequibolus.

Apud nos hodie Grossi Polonici duo & Denarioli 14 $\frac{1}{2}$ . In Silesiã Grossius 2 $\frac{1}{2}$ . In Saxoniã Crucigeri duo, & Denariolus unus: 2 Kreuzer und 1 Pfennig Meßnisch.

10 Sesterii 4 I DENARIUS Rom. Deni Æris, sc. Nummi: unde Signum X five X. DRACHMA Attica. OBOLI sex. Nobis Obols pars Thaleri Uncialis, Ein halber Reichs-Drt. Pondere unius Ducati genuini, Ein Quintelstn Silber.

20 8 2. Didrachmum. Siclus Publicus Hebr. Quarta pars Thaleri:  $\frac{1}{4}$  Rthl. Ein Reichs-Drt. Pondere Ein halb Loth Silber.

40 16 4. Tetradrachmum. Siclus Sacrarii. STATER argenteus. Dimidius Thalerus, Ein halb R. Thaler. Ponus Semuncia, ein Loth Silber. Underthalb Schort.

80 32 Denarii 1 THALERUS Imperialis, Joachimicus, Valensis, Uncialis. Ein guter Reichs-Thaler. Ponus Unciæ unius: Eine Unge Silber.

100 40 chmæ 10 I $\frac{1}{4}$  I CORONATUS, Philippæus, Scutatus. DRACHMA AURI. AUREUS Romanus.

250 100 25 3 $\frac{1}{8}$  2 $\frac{1}{2}$

1000 400 100 12 $\frac{1}{2}$  10 I LIBRA, seu PONDO argenti R. MINA Attica.

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60000 24000 6000 750 600 60 24 TALENTUM Atticum Ar-

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1750000 700000 175000 21875 17500 1750 700 Septies quæ sequitur, accipi-

2000000 800000 200000 25000 20000 2000 800 Ollies pienda sint, contpici

2250000 900000 225000 28125 22500 2250 900 Nobis tãto evidenti<sup>9</sup> possit.

2500000 1000000 250000 31250 25000 2500 1000 DECIES SESTERTIUM, scil.

SESTER- DENARI THALE- CORONA LIBRÆ SESTER-  
TII. DRACH- RI. TI. PHI- PONDO- TIA.  
ÆRIS. NUMMI. MÆ. LIPPICI, MINÆ. HS.  
UM. SCUT. DU  
HS. CATONES.

1. 2. 3. 4. 5. 6. 7. 8.

EXPLA-

Pl. 3: 1. Johannes Petrus Titius, *Abacus sive tabula nummaria generalis* attached to his *Commentatio nummaria* printed in 1670 – sign. Gdańsk PAN Library, Od 17393, 53 (83060)