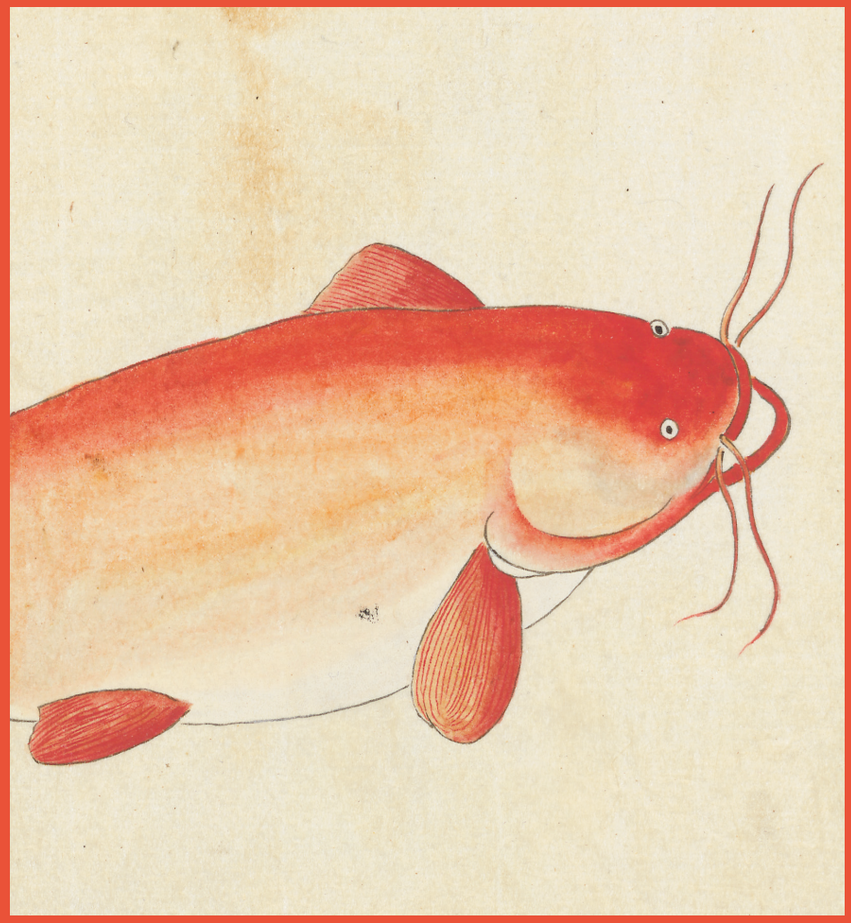

Fish & Fiction

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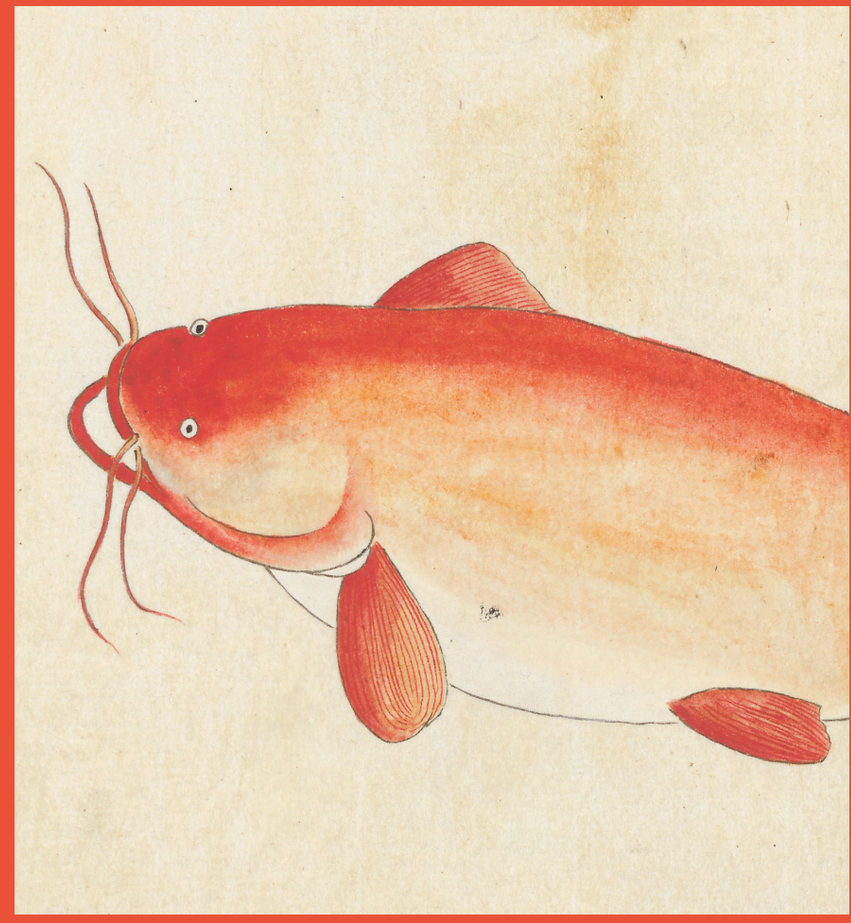
Aquatic Animals between Science and Imagination (1500–1900)

Marlise Rijks, Paul J. Smith & Florike Egmond (editors)



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Aquatic Animals between Science and Imagination (1500–1900)

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Leiden University 2018

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Cover front: Udagawa Yoan, Red Catfish (*Aka Namazu*). In: *Ocean Fish Drawn from Life (Kaigyo Shashin)*, c. 1830-1840. [Ser. 1012]

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3 Fish out of Water
Collecting Aquatic Animals in the Early Modern Period

Fish out of Water
Collecting Aquatic Animals in the Early Modern Period

Marlise Rijks

At the turn of the seventeenth century, the Leiden professor Everard Vorstius (1565–1624) acquired a curious dried crab from the Moluccas. Vorstius knew just whom to show it to: his admired colleague and the authority on natural history in Leiden at the time, Carolus Clusius (1526–1609). Clusius came to visit Vorstius at some point in 1603 to study the dried animal and included the new species in his book *Exoticorum libri decem* (1605) (3.2). A clear picture of the crab was added, which leaves no doubt as to which species Clusius described: a horseshoe crab, an animal living in the East Indies and the New World that was virtually unknown in Europe at the time. Vorstius and Clusius must have been excited to see, touch, and investigate the horseshoe crab – a species they saw for the very first time. The anecdote also illuminates the importance of the culture of collecting in the field of natural history, as well as the importance of good images.

Sixteenth- and seventeenth-century Europe had a lively collecting culture. Princes and professors, apothecaries and artists, merchants and physicians: different groups of people became obsessed with collecting. They filled their cabinets (or *Kunst- und Wunderkammern*) with man-made and natural objects: *artificialia* and *naturalia*. Various aquatic naturalia belonged to the most fashionable collectables: think of horseshoe crabs, blowfish, sawfish, narwhal tusks (3.5), and corals and shells (3.7). Particularly fashion-

able were objects from the East- and West-Indies, which reached Europe on an unprecedented scale as a result of the rise of trading companies (see chapter 4). In first instance, collectors were mainly interested in the most curious, rare, or exotic naturalia, but in the course of the seventeenth century, and especially in the eighteenth century, the emphasis shifted towards a greater attention for 'typical' or local nature. At the same time, the interest in and need for classification grew (see chapter 5).

While Clusius seems to have thought he was the first to publish an image of the horseshoe crab, another picture of the animal had been printed over a decade earlier. In 1590, Theodor de Bry (1528–1598) published the first volume of his best-selling *America* series in Frankfurt am Main. This first volume includes an engraving of native people fishing, with a variety of aquatic animals, including two schematic horseshoe crabs (3.1). Another image of a horseshoe crab occurs on the title page of Ole Worm's (1588–1655) *Museum Wormianum* (3.4). This Danish collector acquired large numbers of aquatic naturalia. The horseshoe crab is depicted on the right-side wall amidst the saw of sawfish, some dried fish, a crab, a squid, two small turtles, and two large turtle shells. In the Early Modern Period, all these animals belonged to the broad category of 'fish', which basically referred to the whole aquatic fauna.

The engraver Nicolaes de Bruyn (1571–1656) had a similarly broad notion of the category 'fish'. With the publication of his *Libellius varia genera piscium complectens* around 1594 (3.3), he was probably the first to put on the market such a print series specifically devoted to fish. The pictures are

clear and recognizable, which fitted the early modern turn towards nature in both the arts and sciences. Among the depicted species we find commonly known fish such as cod, sturgeon, carp, ray, haddock, garfish, herring, and sole, but also other aquatic animals such as shrimp, crabs, lobsters, water snakes, frogs and toads, and mussels and shells. De Bruyn even included some *fictitij pisces* (fictitious fish) and the f*abulosus equus Neptuni* (mythical horse of Neptune).

Monsters and mythical creatures long remained an integral part of the fascination for the aquatic fauna (see chapter 2). One aquatic collectable that was related to a mythical (land) creature was the narwhal tusk (3.5; see also 2.7). Narwhal tusks were prized collectables and thought to be the horns of unicorns. In the Early Modern Period a debate arose about the reality of the unicorn. Some suggested the horns actually came from a marine animal. Respected scholars and collectors such as the aforementioned Ole Worm were involved in this debate, which revolved around 'proof' from textual sources, collected objects, and images.

During the sixteenth and seventeenth century, artists started to depict fish in more detail and greater numbers than ever before. Whereas depictions of the Biblical stories of the miraculous draught of fish had long been popular (see chapter 1), now engravers and painters invented new genres with detailed depictions of fish - such as specialised fish series in print (e.g. by De Bruyn), market scenes, allegories, and still lifes. Some collectors amassed beautiful albums of watercolours with images of plants and animals. These functioned as complements to the actual naturalia in their collections, or, when a particu-

lar specimen was missing, as substitute for the actual object. Images and preserved specimens both had their advantages. One could argue that preserved specimens came as close to the living 'actual thing' as one could imagine. But even specimens are representations that would not have existed without human intervention. A popular collectable such as a sea horse, for instance, had to be selected, captured, dried, transported, sold and bought, and then finally put on display in a cabinet. Some things were lost as a result of preservation - in the case of fish the most important thing that got lost was the original colour. Here, coloured images had an obvious advantage over preserved specimens. In the Early Modern Period there were debates about the value of different types of representations. Also, some collectors were experimenting with preservation techniques or gave detailed instructions to their contacts overseas on how-to preserve their desired collectables.

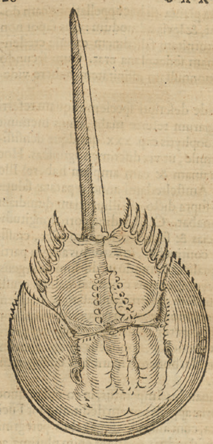
The most common method of preserving fish was drying. When it was relatively easy, fish were dried and kept as a whole, for instance in the case of trunkfish and blowfish. It is no coincidence that those specimens easiest to preserve, were most often found in collections. Another common preservation technique was to skin fish and dry the skin: a process very similar to the preservation of plants in a herbarium. One such method was developed and described by Johan Frederic Gronovius (1690–1762), a physician and botanist based in Leiden. The practice of preserving fish in pots and jars filled with alcohol seems to have been gradually rising during the seventeenth century. In fact, these two techniques for the preservation of fish, drying and keeping

them in alcohol, remained almost unchanged for 300 years. The famous collection of the apothecary Albertus Seba (1665–1736) contained both wet and dry specimens. In Seba's portrait (3.6) we see a large number of jars filled with alcohol and (unrecognizable) animals against the wall behind him. In his right hand, Seba is holding such a jar – with a snake. With his left hand, he points to some shells scattered on the table. Shells were among the most common and fashionable collectables: every self-respecting collector owned some. In Seba's *Thesaurus*, the multi-volume catalogue to his collection, we find images of shells laid in decorative patterns. Curious shells with attractive forms, colours, and patterns were considered as 'art made by nature'. But again, very practical reasons were also important in collecting trends: shells were relatively small, easy to transport, and did not need any preservation technique at all. As with all fashions, shell collecting also had its critics. In his popular emblem book *Zinne-poppen* Roemer Visscher (1547–1620) ridicules the 'geck' (foolish) collector who spends large sums of money on shells – as if it are jewels (3.7).

3.1 | Theodor de Bry, 'The manner of their fishing', in: *America*, part 1, Frankfurt am Main, Theodor de Bry, 1590, plate XIII. [1368 A 8]

— In 1590, the engraver-publisher Theodor de Bry (1528–1598) published the first volume of his best-selling *America* series. The beautiful images made by De Bry and his sons added much to the popularity of the series. The engravings in this first volume were based upon the drawings by the English artist John White (d. ca. 1593). In 'The manner of their fishing', we see native people fishing as well as a variety of aquatic animals. Two rather schematic horseshoe crabs are depicted in the lower right corner. De Bry depicted the horseshoe crab mistakenly with large pincers, perhaps to 'normalise' it, so in order to render it more like the crabs with which he was familiar. This copy in Leiden University Library is beautifully hand coloured.

Cancer Moluccanus.

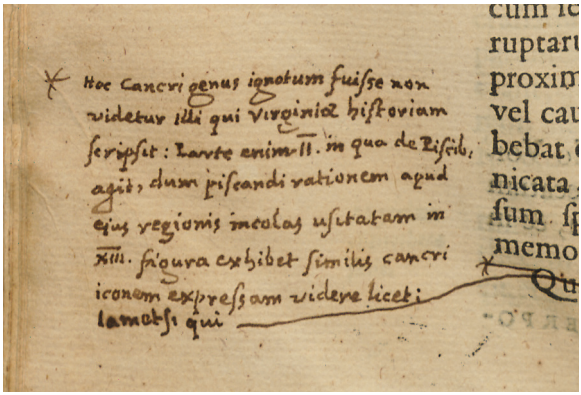


PERPOLITAM autem habebat is teſtam, eamq́ue verſicolorem, in qua lumini oppoſita, obſervarentur in fuſco mixti colores flaveſcens & rubeſcens. Conſtabat verò ea teſta duabus partibus, anteriore & poſteriore, inter ſe quadam cartilagine connexis: anteriore quidem breviore & anguſtiore, ut quæ tres dumtaxat uncias longa, quatuor lata eſſet, ubi ampliſſima: poſteriore autem longè majore, quatuor videlicet uncias cum ſemiſſe longâ, ſeptem cum ſemiſſe latâ. Utraque pars in dorſum inſtar fornicis aſſurgebat, poſterior tamen magis quàm anterior, & veluti in eminentiores tres diviſiones brevibus quibuſdam aculeis præditas diſtincta: quâ etiam anteriori parti connexa erat, magis eminens, & brevibus quibuſdam aculeis munita, deinde in lunata quædam cornua ſe ſpargens, ad longos uſque anterioris partis aculeos pertingentia, dentata utrimque & in firmam ſpinam deſinentia, circa verò connexionem aſperis quibuſdam villis obſita: mediâ quaſi parte teſtæ, in dorſi lateribus orbiculatæ quædam conſpiciebantur eminentiæ, oculorum pænè formam referentes, duræ tamen & teſtaceæ. Anterior porrò teſtæ pars, quâ poſteriori connectebatur, tres uncias lata erat, quatuor autem (ut ſuprà dicebam) ubi ampliſſima, extima binas ſolummodò, eaq́ue in tres breves aculeos, æquali ſpatio inter ſe diſtantes, deſinens: ad medium aculeum, adnexum habebat non exteriori teſtæ adhærens, ſed quadam articulatione ſub ipſa teſta triangulare cornu, ſeptem uncias longum, anguſtum & mucronatum: ſupremus in prona aculei parte angulus, brevibus aculeis inſtar ſerræ erat obſitus; ſupina ejus pars lævis & carinata: anterioris partis teſtæ latera ſeptem aculeis, præter extimum, erant munita, & ſex firmis, planis, & acutis ſpinis unciam longis, ſpadicei coloris & hirſutis inter extimum & ſeptimum aculeum prodeuntibus donata: mediâ pronâ parte ſex anguſtarum lacunarum, quaſi cultri mucrone impreſſarum, bini ordines apparebant, quibus internâ teſtæ parte totidem plana oſſicula, veluti abruptarum coſtarum fragmenta, reſpondebant.

Totum ipſius animalis corpus ſiccitate contractum & vetuſtate magna ex parte corruptum erat: decem autem pedes habuiſſe videbatur; quorum priores, an chelas habuerint, ignoro, nam nulli integri præter poſtremos, qui ſex articulis conſtabant. Omnes oriebantur ex majore ſive poſteriore teſta; atque adeò arctè conjuncti erant, ut cultelli mucronem non admitterent, ſed ſtatim ad primum articulum coaluiſſe viderentur: anteriores pedes, qui an chelæ, ut dicebam, fuerint, ignoro, ſtatim à ſede inferioris articuli, ex ipſa articulatione latam appendicem producebant, fraxini ſemini non valdè diſſimilem; atque ante illos binæ ferè ſimiles appendices exoriebantur: hirtæ, breves, ad primi ſive infimi articuli ſummum vix pertingentes: octo reliqui pedes, ſuperiori infimi articuli parti appendices etiam adnexas habebant, breves, craſſas, aculeatas, utrimque in unum quodammodo coëuntes: ſecundi articuli aliquot ſimiliter aculeis donati: poſtremos pedes ſubſequebantur exiguæ chelæ tribus articulis conſtantes, adeò breves, ut ad tertium poſteriorum pedum articulum vix pertingerent. Quâ anterior teſtæ pars poſteriori connectebatur, ex ipſa connexione ſubhirſuta quædam cartilago oriebatur, unciam cum ſemiſſe longa, binas cum ſemiſſe lata, deinde aliæ paullò minores ad ſingula illa plana oſſicula, veluti abruptarum coſtarum fragmenta: ſed omnes præter primam commemoratam, & huic proximam, adeò corruptæ, ut oſſicula dumtaxat conſpicerentur; nullis vel capitis, vel caudæ veſtigiis apparentibus. Ea autem anterioris teſtæ pars, in qua ortum habebat oblongum illud triangulare & mucronatum cornu, concava erat, & quaſi fornicata, unciamq́ue longa, binis veluti denticulis planis & in extimo acutis introrſum ſpectantibus donata, ad quam uſque pertigiſſe videbantur cartilagines ſuprà memoratæ.

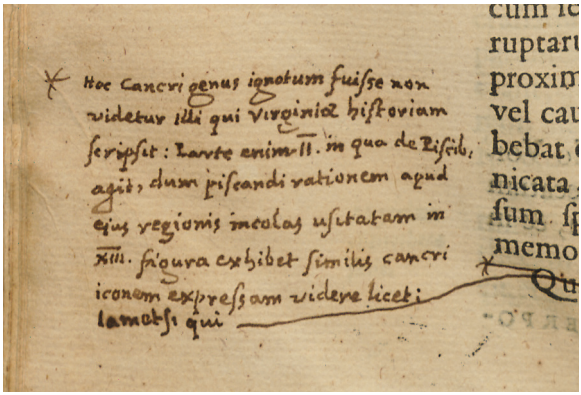
Qui Cancrum iſtum Doctori Vorſtio commodabat, ut mihi oſtenderet, Ioannes à Wolfs-

✝ Hoc Cancri genus ignotum fuiſse non videtur illi qui Virginiae hiſtoriam ſcripſit: Parte enim II. in qua de Piſcib. agit, dum piſcandi rationem apud ejus regionis incolas uſitatam in XIII. figura exhibet ſimilis cancri iconem expreſſam videre licet: tametſi qui



3.2 | 'Cancer molluccanus'. In: Carolus Clusius, *Exoticorum libri decem*, Leiden, Officinia Plantiniana, 1605, p. 128. [755 A 3: 2]

— This edition (755 A 3: 2) of the *Exoticorum libri decem* was Clusius's own copy. It contains notes in Clusius's own handwriting as well as other hands. Pasted to the pages are also pieces of printed texts and images from other books. The corrections and notes were added as preparation for a new edition of the work, which was never published in the end. On the page with the image of the horseshoe crab we read in Clusius's own clear handwriting that this crab was, in fact, not unknown and that it was described in the 'Virginiae historia' and depicted there on plate XIII. This must be a reference to De Bry's *America*. It seems that Clusius had not associated the specimen he described from the Moluccas with the New World reference, while the image in De Bry is indeed quite different from Clusius's clear image. However, it is remarkable that Clusius only added this note after the publication of the *Exoticorum libri decem*, as he knew De Bry personally and was involved in the preparation of the first volume of the America series.



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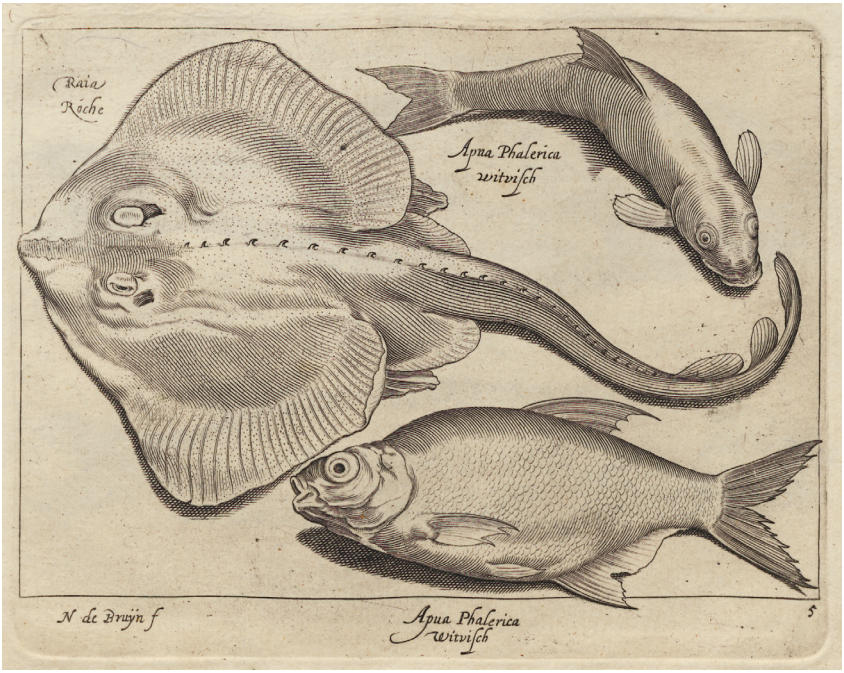

3.3 | Nicolaes de Bruyn, 'Roch & witvisch'. In: *Libellus varia genera piscium complectens*, s.l., Françoys van Beusekom, s.d. [first ed. ca. 1594]), plate 5. [THYSIA 1316: 2]

— The engraver Nicolaes de Bruyn (1571–1656) was born in Antwerp and trained by his uncle Abraham de Bruyn, who was one of the first artists to produce an animal print series (of four footed animals). Nicolaes's print series of aquatic animals seems to have been the first in its sort and was probably published around 1594 in Antwerp by Assuerus van Londerseel (some years before Adriaen Collaert's well-known *Piscium vivae icones*). The series now in Leiden University Library is the second edition, published by Françoys van Beusekom. Plate 5 (of 13) depicts a ray and two 'white fish' (a bream and another species). As in all the plates, De Bruyn includes the Dutch and Latin names of the species.

3.4 | G. Wingendorp, Cabinet of Ole Worm. In: Ole Worm, *Museum Wormianum*, Amsterdam, Elsevier, 1655, frontispiece. [656 A 8]

— The catalogue of the collection of the Danish scholar Ole Worm (1588– 1655) was published posthumously in 1655. The frontispiece of the *Museum Wormianum* gives a good impression of the wealth and variety of Worm's collection. A large share of the depicted collectables can be categorised as aquatic. Next to the boxes filled with shells and coral, there are impressive large aquatic animals hanging on the ceiling, as well as some of the most curious and popular (parts of) aquatic animals: the saw of sawfish; a horseshoe crab, and a narwhal tusk (including its skull).

3.5 | Narwhal tusk, 17th century, 197 cm. [Museum Boerhaave V25804]
— Narwhal tusks were on display in many a collector's cabinet in the sixteenth and seventeenth century. The tusks were thought to be unicorn horns, but already in the sixteenth century, doubts arose as to the reality of the unicorn. Textual sources seemed to confirm the existence of the animal: the unicorn was described in antique texts, but also in the Bible. The Hebrew text of the Bible included an animal called *re'em*, later translated into Greek as *monokérotos* (in the Septuagint), and in *unicorn* in several vernacular Bible translations. Whereas the discussion was originally about the right interpretation of textual sources, the actual horns in cabinets came to play a decisive role. People now started to suggest that the horns sold as unicorn horns were in fact horns of a marine animal. Around the same time, travel accounts reported of narwhals. The debate about the tusks fascinated collectors throughout Europe: Ole Worm for instance, wrote a disputation about the issue in 1638.

3.6 | Jacob Houbraken (sculp.) and Jan Maurits Quinkhard (pinx.), Portrait of Albertus Seba, in: Albertus Seba, *Thesaurus*, vol. 1, Amsterdam, Janssonius van Waesberge, 1734). [PLANO 47 A 1-2]

— The Amsterdam-based apothecary Albertus Seba (1665–1736) was one of the city's most avid collectors. In 1716 he sold his complete collection to Tsar Peter the Great for the incredible amount of 15,000 gulden. But that was not the end of his collecting-career: he amassed another great collection of naturalia, while he also started to prepare a catalogue of his collection. The monumental *Thesaurus* was published over the course of thirty years (partly after Seba died) and beautifully illustrated with more than four hundred plates. Among the large images are the famous depictions of shells (in decorative patterns), a horseshoe crab, and countless fish. Included was also this portrait of the collector: Seba looks at us amidst part of his collection of wet specimens, shells, corals, minerals, and albums.

3.7 | 'Tis misselijc waer een geck zijn gelt aan leijt' (it is astonishing how a fool spends his money). In: Roemer Visscher, *Zinne-poppen*, *alle verciert met rijmen, en sommighe met proze*, Amsterdam, Johannes van Ravesteyn, 1669 [first ed. 1614]), plate 4. [1174 G 8: 1]

— One can hardly think of a more popular collectable in the Early Modern Period than shells. But as this moralistic emblem by Roemer Visscher (1547– 1620) demonstrates, shell collecting was also criticised as a foolish activity. The image shows a variety of shells on a shore and the subscription tells us that it is wasteful to spend a lot of money on shells; objects that were used to be considered children's toys. Collectors are apen (monkeys), mimicking the collections of emperors and kings. However, those who are active in the shell trade are soo geck niet (not that crazy), as they make good money. Perhaps not coincidentally, the following emblem (5) in *Zinne-poppen* mocks the collecting of tulips (for which incredible prices were also paid, leading to the well-known 'Tulipmania' in the 1630s).

IV.

't Is miſſelijck waer een geck ſijn geldt aen leydt.

HEt is te verwonderen datter treffelijcke lieden zijn die groot gelt beſteeden aen Kinckhorens en Moſſelſchelpen, daer niet fraeys aen en is als de ſeldſaemheydt, en dat, om datſe mercken datter groote Potentaten, ja Keyſers en Koningen zijn, die ſulck gedrocht op doen ſoecken, en wel dier betalen. Ey Heeren Apen, ghy verſtaet het binnen ſpel niet. De Koningh Lodewijck van Vranckrijck de elfde van dier name, dede ſelſame dieren komen uyt ſijn nabuer Koninckrijcken, om hem een naem te maken dat hy noch groote luſt in ſijn leven hadde, nochtans was hy doe ter tijdt van lichaem ſeer ſwack. Ick wil hier niet ſchelden die haer neeringe daer af maken, om hun profijt daer mede te doen, als't ſonder liegen geſchieden mach: die en zijn ſoo geck niet, of ſy ſien een goet eynde voor haer deel.

Tis miſſelijck waer een geck zijn gelt aen leijt.

Verquiſtinghs ſinlijckheydt, koopt duer en voor ſuweelen,
Dit, dat men eertijts gaf de kinders meê to ſpeelen.

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