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The Fuzzy Metrics of Money: The Finances of Travel and the Reception of Curiosities in Early Modern Europe

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Summary

This article argues that commerce and the language of finance had an important influence over the interpretation of curiosities in the early modern period. It traces how learned travellers in the years around 1700 were constantly reminded to watch their purses and to limit their expenses while on the road. As a result, monetary matters also influenced their appreciation of *artificialia* and *naturalia*. They judged and compared the aesthetic value of curiosities by mentioning their price. Money offered an easy, telegraphic manner of signalling intrinsic worth. Visitors of cabinets paid attention to the financial value of the collector's books, paintings, and natural specimens, and kept mentioning it in their diaries and correspondence. The keen attention of students, scholars and *amateur* gentlemen to money suggests that, even if the Republic of Letters operated in a gift economy, its members were much aware of their gifts' prices. Commercial values deeply infiltrated the erudite discourse of the period.

Contents

'For a collector is only taken seriously when he manipulates large sums of money.'[1]

1. Instructions

Start with that most famous of all travel instructions, that of Polonius to Laertes.

'*Costly thy habit as thy purse can buy,*
But not express'd in fancy; rich, not gaudy;

[1] Krzysztof Pomian, *Collectors and Curiosities: Paris and Venice, 1500–1800* (Cambridge, 1990), 1.

For the apparel oft proclaims the man,
And they in France of the best rank and station
Are of all most select and generous chief in that.
Neither a borrower nor a lender be'
For loan oft loses both itself and friend,
And borrowing dulls the edge of husbandry.'[2]

As Shakespeare reminds us, early modern travellers did not only need to preserve their self in foreign lands and seas ('to thine own self be true'), but also their purse. Actual instructions for travel contained similar paternalistic instructions to learned tourists across Europe who set out on a voyage in this period.[3] In 1690s Transylvania, the widow Judit Vér wrote up a lengthy instruction for her son Count Pál Teleki, and urged him to discover 'what books or Inventions and excellent Men have embellished the Respublica Literaria these days', and to meet the members of 'ad provehendam Sapientiam institutae Societates in Europe, dispersed per omnia regna et provincias'. As part of her instructions, she paid special attention to remind his son to avoid adultery, drunkenness, and

'playing dice for money, and playing cards. How many promising youths have been lost and are lost today because of these three evils, as their purse is too thin for these. Remember the poor state of your home and your own status.'[4]

And, a few months later, Teleki was also reminded in another letter from his brother about the three *P*s that men travelling in foreign countries always had to keep in mind: 'prudentia, pecunia, patientia' (prudence, money and forbearance).[5] Writing just a few years later, the aristocrat György Széchenyi wrote up four similar letters of instruction for his son, his Flemish prefect and two Hungarian companions, who were about to travel to Italy. As he specified in these letters, money had to be carefully watched and accounted for. Only the prefect was authorized to draw money from Széchenyi's agent in Italy, in the presence of the other members of the group, and then he had to hand over the money to the Hungarian companion in exchange for a written letter of receipt.[6]

Finances bore heavily on the mind of those students, scholars and curious gentlemen who set off on a voyage to visit churches, galleries and private collections, and also to encounter the notabilities of the Republic of Letters, this imaginary community that united savants across Europe in their pursuit of historical or natural

[2] William Shakespeare, 'Hamlet', in *The Norton Shakespeare*, 2nd edition, edited by Stephen Greenblatt (New York, 2006), 1696–1784 (I.3, 1708).

[3] On instructions, see Daniel Carey, 'Hakluyt's Instructions: *The Principal Navigations* and Sixteenth-Century Travel Advice', *Studies in Travel Writing* 13 (2009), 167–85; Joan-Pau Rubies, 'Instructions for Travellers: Teaching the Eye to See', *History of Anthropology* 9 (1996), 139–90; Justin Stagl, *A History of Curiosity; The Theory of Travel 1550–1800* (Chur, 1995).

[4] 'Távoztassa és fogadássalis, a mint a két felsöt, ugy harmadikot, a pénzben való koczkázást, kártyázást. Vajki sok szép Iffiuság veszett és vész el ez három gonosz miatt, néki ugyan az erszenyeis vékony ezekhez. Tudgya ennek az Hazának nyomorult voltát s maga állapottyát.' Zsuzsa Font, *Teleki Pál külföldi tanulmányútja. Levelek, számadások, iratok, 1695–1700* (Szeged, 1989), 7–8. In all probability, the text was originally composed by Teleki's teachers in Hungary, and not by the widow herself. All translations from foreign languages are by the author of this article, unless otherwise specified. When the original Hungarian source is interspersed with Latin phrases, the Latin is retained to illustrate the original style. On the voluminous Hungarian travel literature, see Iván Sándor Kovács, *Magyar utazási irodalom 15–18. század* (Budapest, 1990).

[5] Zs. Font (note 4), 33.

[6] Péter Ötvös, *Széchenyi Zsigmond itáliai körútja* (Szeged, 1988), 33. For similar instructions across Europe, see Mathis Leibetseder, *Die Kavalierstour. Adelige Erziehungsreisen im 17. und 18. Jahrhundert* (Böhlau, 2004), 68–9.

knowledge. Leisurely tourism was an expensive pursuit when coaches were costly, lodging scarce, and highwaymen omnipresent, as John Evelyn and Samuel Pepys, these eternal friends, both experienced separately when robbed at a gunpoint during outings from London.[7] No wonder that Teleki closely followed the instructions of his mother, and carefully preserved receipts for housing, a new German dress, and fencing lessons in Frankfurt. He even kept an account book for his daily expenses, e.g. one guilder 10 stuivers to see the Leiden anatomy theatre and botanic garden in Leiden, six stuivers for coffee in Amsterdam, and two stuivers for three peaches in Utrecht (see figure 1). [8] Such attention to detail was not unparalleled even amongst the richest. The Leiden textile merchant Allard de la Court, whose father amassed 1.12 million guilders during his career, kept a double-entry account book during his travels in 1707, which reveals that he spent 13 stuivers in a Lubeck coffeehouse, three guilders to see the royal stalls and the Rüstkammer in Berlin, and 2½ guilders on a travel guide to Europe in Hamburg.[9] A few stuivers or guilders might have appeared negligible to de la Court, but they added up rather quickly. His total spending amounted to 713 guilders 11 stuivers during the four months of travel in Northern Germany, the rough equivalent of the annual salary of a professor in Leiden. This was not an unusual amount for European aristocrats. As Mathis Leibetseder has estimated, the German landed nobility expected to spend around 1000 thalers (or 2500 guilders) per year when travelling in this period.[10]

While this article focuses mostly on learned, aristocratic or bourgeois tourists, poorer travellers were even more beset with constant worries about money, even if they spent less exorbitant sums. When the Hungarian town of Debrecen sent two correctors to Leiden to oversee the publication of a Calvinist Bible in Hungarian (and to study at the university), the two young Hungarians spent roughly 1600 Dutch guilders on the 18-month-long trip. János Miskolci Szigyártó, another Hungarian student in the Netherlands, was more fortunate, and spent the same amount on his own in his two years of travel to study in Utrecht.[11] But some had to manage on much less. The protestant theologian Albert Szenci Molnár spent much of his travels with begging and satisfying creditors. During his studies in Heidelberg in 1598, he had to sell four of his books to get money for food, walked over to Strasbourg to get further funds from friends over there, and then fell sick back in

[7] For robbing Evelyn, see John Evelyn, *Memoirs of John Evelyn*, 5 vols (London, 1827), II, 55. On Pepys, see *Old Bailey Proceedings Online, The Ordinary's Accounts* (http://www.oldbaileyonline.org, version 7.0, 24 August 2012), December 1693, trial of Thomas Hoyle Samuel Gibbons (t16931206-24). On early modern travel, see Antoni Mączak, *Travel in Early Modern Europe* (Cambridge, 1995); Daniel Roche, *Humeurs vagabondes. De la circulation des hommes et de l'utilité des voyages* (Paris, 2003); and, on transportation, Jan de Vries. *Barges and Capitalism: Passenger Transportation in the Dutch Economy, 1632–1839*. Wageningen: A. A. G. Bijdragen, 1978.

[8] Zs. Font (note 4), 304–8.

[9] Allard de la Court, *Aantekening ofte Giornaal van mijn reys* (1707), University of Amsterdam Library, IV J 10. On the wealth of the de la Court family, see Benjamin Roberts, *Through the Keyhole: Dutch Childrearing Practices in the 17th and 18th Century* (Hilversum, 1998), 57. On de la Court's travels, and Dutch travelers' account books, see the exhaustive and excellent Gerrit Verhoeven, *Anders reizen. Evoluties in vroegmoderne reiservaringen van Hollandse en Brabantse elites (1600–1750)* (Hilversum, 2009), 144–55.

[10] M. Leibetseder (note 6), 61.

[11] Dániel Margócsy, 'A Komáromi Csipkés Biblia Leidenben', *Magyar Könyvszemle*, 124/1 (2008), 15–26 (18–9). For Miskolci Szigyártó's diary, see Sándor Dúzs, 'Hogyan útazott 170 évvel ezelőtt a magyar calvinista candidatus', *Protestáns Képes Naptár* (1884), 44–59.

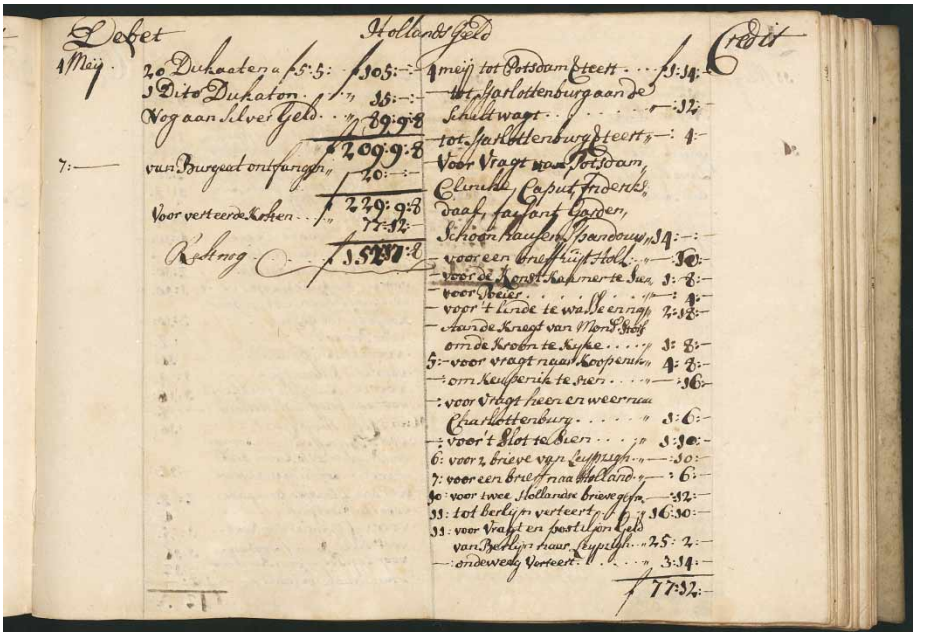

Figure 1. A page from the travel accounts in Prussia, Allard de la Court, *Aantekening ofte Giornaal van mijn reys* (1707), Special Collections of the University of Amsterdam, MS IV J 10.

Heidelberg, when a dozen fellow Hungarians supported him during the cure and the convalescence.[12]

2. Thinking with money

Think about these learned, scientific travellers criss-crossing Europe throughout the early modern period, equipped with clear instructions to restrict their spending, sharing their coaches on the road with merchants, visiting their business agents in Amsterdam and London on a daily basis, carefully accounting for even the minutest expenses, comparing the price of food and lodging with the price of the same things at home, and sending constant, embarrassed pleas for support to their families.[13] Financial thinking seeped into their skin, and, like a broker at Wall Street, they began to see, and wanted to see, everything in monetary terms.[14] Whenever travellers encountered a curiosity, a book, or a souvenir, they began to think about its price. Not that concerns with money were alien to those who stayed at home. By the end of the seventeenth century, burghers and aristocrats lived in a monetarized economy

[12] Zsuzsa Font and Péter Ötvös, '"Egy pár pisztolyt adott peregrinatiomra." Epizódok a "peregrinatio academica" történetéből.' *Beszélő* 8 (2003), http://beszelo.c3.hu/cikkek/„egy-par-pisztolyt-adott-peregrinatiomra'.

[13] Writing under a pseudonym, Christian Henrik Erndl mentioned that he traveled with merchants from Braunschweig to Hamburg, then with two Silesian merchants from Hamburg to Amsterdam. C. H. E. D., *De itinere suo Anglicano et Batavo* (Amsterdam, 1711), 39 and 52.

[14] I take my inspiration on the intertwining of the material and the intellectual from Peter Galison, 'Blacked-out Spaces: Freud, Censorship, and the Re-Territorialization of the Mind', *British Journal for the History of Science* 45/2 (= *States of Secrecy,* edited by Koen Vermeir and Dániel Margócsy) (2012), 235–66; Peter Galison, *Einstein's Clocks, Poincaré's Maps: Empires of Time* (New York, 2003).

throughout much of Europe. Yet the high, unusual, and often unexpected costs of travel heightened the travellers' sensitivity to money.

As a result of this heightened sensitivity, travellers began to lavish praise on shopkeepers who were not reticent to showcase the price tag on the objects they were offering to sell. Martin Lister much appreciated the habit of Parisian toymakers to exhibit their wares with 'the explicite Prises being writ at length upon everything in the shop', though he found them way too expensive.[15] Similarly, the Frankfurt aristocrat Zacharias Conrad von Uffenbach praised the rare bookseller in Bremen, whose sales catalogue actually mentioned the prices.[16] As this article argues, in the process of the monetarization of travel, art, science, education and curiosities were all reduced to prices, allowing facile comparisons about the relative worth of peaches, dried armadillos, and Rembrandt etchings. A telegraphic style of folk aesthetics developed that allowed tourists to briefly note in their diaries what precious objects they have encountered. You could signal the artistic merit of Rembrandt's *Christ Preaching* by calling it the *Hundred Guilder Print*.

In the case of jewellery, the commensurability of monetary and aesthetic value might not appear quite surprising. Just a few years before Teleki's travels, the Transylvanian count Mihály Bethlen remarked during a visit to Marburg, that the shrine of St Elizabeth of Hungary was decorated with the '12 apostles, decorated on all sides with precious stones, of which the most exceptional were: On pearl, the size of a walnut, 8,000 thalers; one emerald, almost the same, 6,000 thalers, one jasper, 2,500 thalers, one topase, 7,000 florins, and one sapphire, 8,000 thalers'.[17] Similarly, when Allard de la Court saw the recently completed crown of King Frederick I of Prussia, he noted that it was decorated with 'extraordinarily big stones, the biggest stone, which the King of England offered to the crown for the support, cost 8,000 pistols', which was roughly 25 000 thalers (see figure 2).[18] His semi-representational drawing of the crown jewels illustrates how he conflated his sensory experience of the object with the price. The monochrome sketch offers the crown's outlines, the pearls are marked with the letter *P*, and the big stone bears the inscription '8,000 pistols', as if Allard de la Court had seen the price tag imprinted on the stone itself. Surely, he must have learned the price from one of the guides in the palace.

Yet monetary considerations did not stop with precious stones. Books could be appreciated not only for their content, but also for their binding and price. When

[15] Martin Lister, *A Journey to Paris in the Year 1698*, edited by Raymond Phineas Stearns (Urbana, 1967), 181.

[16] 'Es ist an ihme zu loben, daß er in seine Catalogos von seinen Büchern nicht allein die Grösse und Bögen, sondern auch die Preise setzet.' Baron Zacharias Conrad von Uffenbach, *Merckwürdige reisen durch Niedersachsen, Holland, und Engelland,* 3 vols (Ulm, 1753–4), II, 164. For Uffenbach in the Netherlands, see also Kasper Risbjerg Eskildsen, 'Exploring the Republic of Letters: German Travellers in the Dutch Underground, 1690–1720', in: *Scientists and Scholars in the Field: Studies in the History of Fieldwork and Expeditions,* edited by Kristian H. Ielsen, Michael Harbsmeier and Christopher J. Ries (Aarhus, 2012), 101–22. For Uffenbach in England, see James A. Bennett, 'Shopping for Instruments in Paris and London', in: *Merchants and Marvels: Commerce, Science and Art in Early Modern Europe*, edited by Pamela Smith & Paula Findlen (New York, 2002), 370–98.

[17] 'A Szent Erzsébet templomában nézzük a maga koporsóját, mely drága, . . ., a két oldalán a 12 apostolok, mindenfelől rakott drágakövekkel, amellyek közük kiváltképpen valók: egy gyöngy, egy diónyi, 8000 tallér, egy smaragd, szinte ollyan, 6000 tallér. Egy jáspis 2500 tallér. Topáz 7000 florenis. Zafir 8000 tallér.' József Jankovics, *Bethlen Mihály útinaplója* (Budapest, 1981), 114.

[18] 'de Croon seer swaar van Goud en de steene die daar op vast gemaakt sijn met kooper draatjes, ende steene sijn extraordinair groot, de grooste steen die, voor anhang heeft de kooning van Engeland aan de croon vereert, kost 8000 pistolen.' Allard de la Court, May 5, 1707.

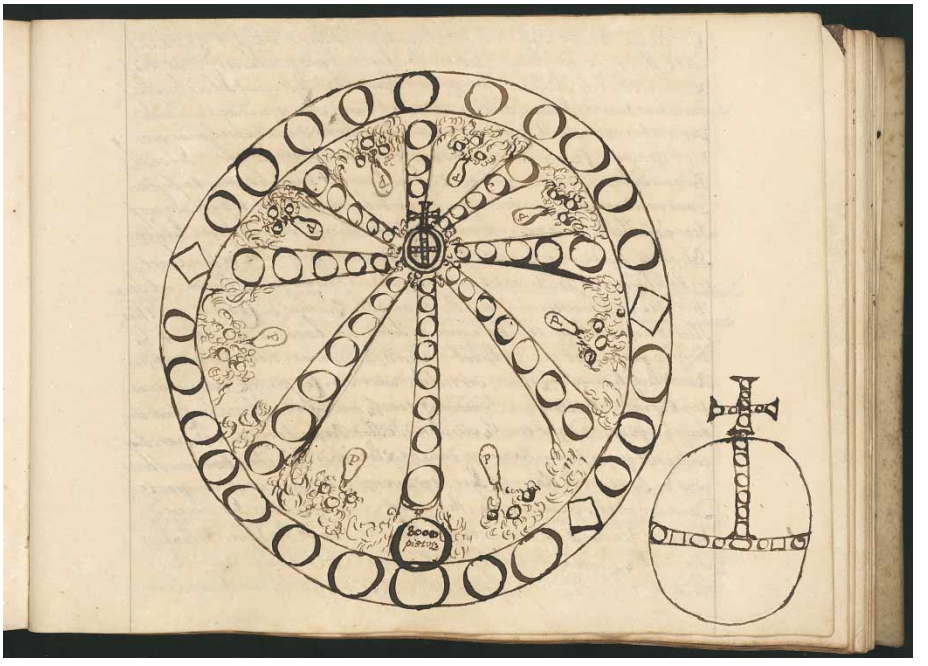

Figure 2. Drawing of the Prussian crown jewels, in Allard de la Court, *Aantekening ofte Giornaal van mijn reys* (1707), Special Collections of the University of Amsterdam, MS IV J 10.

Samuel Pepys visited The Hague in 1660, he bought Bacon's *Organon,* with some other books, 'for the love of the binding'.[19] Soon after visiting Berlin, Allard de la Court also had a chance to admire sumptuous books in Wolfenbüttel, where the library was 'really big and magnificent, and there were various pretty books and all bound in very pretty volumes'. De la Court saw Luther's spoon, a book printed in Mainz in 1459, four hundred manuscripts that were bought in France for 24 000 thalers, and 'one more book in-quarto that was fifteen leaves thick', full of sea and land maps that 'people say cost 200 ducatons'.[20] Christian Hendrick Erndl praised the Bodleian in Oxford in similar terms, mentioning that the founder spent 200 000 French livres on establishing it.[21] Just fifteen years earlier, Bethlen used the similar, telegraphic style when describing the library in Berlin, where he noticed '16 tomi, qui constant 3060 Talleris ubi sunt Omnia Animalia depicta, decorated with many,

[19] Samuel Pepys, *The Diary of Samuel Pepys,* online edition by Phil Gyford, http://www.pepysdiary.com, May 15, 1660. On English travelers in the Netherlands, see Kees van Strien, *Touring the Low Countries: Accounts of British Travelers, 1660–1720* (Amsterdam, 1998).

[20] 'Deese is seer groot en magnefiec, en staan daaar in verscheijde fraaije Boeken en alle seer fraaij in Bande gebonden, onder andre een Boek genaamt Rationale Divinorum officiorum gedruckt tot Mentz in't Jaar 1459 not staan Hier in vier Honderd manischripte die in Vrankryk gecost hebben, vier en twintig Duysent Daalders, nog een Boekje in quarto vyftien Blaade diek waar in met de pen getrokke en geschreeve staat seer curieus de zee en Land Caarte dit seyd men dat gecost hadde 200 Dukaten, nog sag ik op deese Biblioteecq een Leepel in glad die Doctor Lugter gebruykt hadde.' Allard de la Court, June 2, 1707.

[21] 'Asservatur haec Bibliotheca in Collegio Universitatis, fundata ante hos centum et quod excurrit annos, a *Thoma Bodley of Exeter, qui Casaubono teste Ep. 745.* 200,000 libras Gallicas pro extruenda hac erogavit.' C. H. E. D., 69.

innumerable, beautiful novelties'. Like de la Court and Erndl, Bethlen appeared equally impressed with the rarity of a volume and its price: 24 000 thalers for 400 manuscripts vs 3060 thalers for 16 volumes vs 200 000 livres for a whole library, these data points offer a curious metrics to evaluate and compare books and manuscripts.

The same financial thinking affected the interpretation of artworks. At the Amsterdam Surgeon's Guild, Uffenbach noticed a painting that depicted how 'the renowned anatomist Tulpius performs an anatomy.' Failing to note Rembrandt's authorship, Uffenbach called the image 'incomparable' and wrote that a 'burgomaster here offered a thousand thalers for it', clearly a sign of appreciation and a metric for comparison.[22] The German aristocrat also made similar remarks about living painters, noting that the renowned Hamburg painter Balthasar Denner asked 15 thalers for a portrait, twenty for a miniature and forty when it came to a bust with the arms.[23] Pepys was similarly perceptive of both quality and price. When he saw a *trompe-l'oeil* painting in Holland, done 'upon woolen cloth, drawn as if there was a curtain over it', he remarked that it 'was very pleasant, but dear'.[24]

Learned travellers also reduced intangible matter to monetary terms. Education offered not only the opportunity for the meeting of minds, it was also a financial contract between professor and students. Like students in 21st-century America, travelling young men had to think twice where to enrol and what courses to take. When Bethlen stayed in Frankfurt an der Oder, he quickly dismissed a professor of astronomy, who offered to teach the young count the secrets of the skies (*peripatetica astronomica*) in sixteen weeks for a hundred Hungarian florins. Bethlen computed that each hour of instruction would have cost him one florin, indeed an astronomical sum, and dismissed the instructor with a laughing remark that 'he won't get any of it anyway'.[25] A smart choice when he could get a month's worth of German lessons for 1.5 thalers, and a three-month-long private seminar of geography for 10 thalers from Antonius Wilhelm Sovart.[26] Travellers noted down the price of instruction even when they had no intention to take a lesson. When in Amsterdam, Baron Zacharias Conrad von Uffenbach, future mayor of Frankfurt am Main, carefully wrote down the cost of a two-month private anatomical course from both Johannes Rau and Frederik Ruysch (16.6 and 15.5 guilders, respectively).[27]

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[22] 'Eines rechter Hand des Comins ist demselben weit vorzuziehen und war unvergleichlich. Auf diesem Stück verrichtet der berühmte Anatomicus Tulpius die section. Hievor soll ein noch lebender Burgermeister allhier tausend Thaler geboten haben, wie es dann gewiß gar schön.' Z. C. von Uffenbach, 3, 546.

[23] 'Sein Preis ist fünfzehen Reichsthaler. Er malt auch en mignature, davor man ihm zwanzig Thaler bezahlt, wenn er aber en buste mit den händen macht, vierzig.' Z. C. von Uffenbach, 2, 118. On the financial aspects of painting, with somewhat different conclusions, see Elizabeth Honig, 'Making Sense of Things: On the Motives of Dutch Still Life', *Res: Anthropology and Aesthetics* 34 (1998), 166–83; as well as Elizabeth Honig, *Painting and the Market in Early Modern Antwerp* (New Haven, 1998); Michael North, *Art and Commerce in the Dutch Golden Age* (New Haven, 1999); and John Michael Montias, *Artist and Artisans in Delft: A Socio-Economic Study of the Seventeenth Century* (Princeton, 1982).

[24] S. Pepys, May 19, 1660.

[25] 'Ez ám jó kereset volna, ha valakinek elhányó pénze volna, és neki meg adná; . . . de abban bizony nem kap.' J. Jankovics, 17.

[26] J. Jankovics, 16 and 27.

[27] Z. C. von Uffenbach, 3, 639-40. The text writes that Rau charged three students 500 guilders in total for a two-month course, which seems extraordinarily high, and suggests that it is a typographical error. 50 guilders for three students, in contrast, seem just the right price.

3. Appreciating curiosities

Financial aesthetics played probably the strongest role when it came to evaluating and comparing curiosities.[28] How else would you be able to make sense of the random assortments of coins, dried crocodiles, seashells, microscopes, seeds of exotic plants, air pumps, and stuffed birds upon entering a cabinet of curiosities?[29] Your senses are overloaded with sensations come from all directions. Your eyes quickly flicker from one shelf to another, your nostrils are dazed by the pungent smell of putrefaction, and your ears cannot filter out the constant babble of your guide calling attention to one specimen after the other. Which one is worth your attention, a line in your diary, or the effort to acquire eventually? How do you make a selection of interesting specimens from the myriad of objects in a chest? While earlier, Renaissance travellers like Albrecht Dürer were similarly attentive to monetary value, they could also rely on the all-encompassing hierarchical interpretations of nature that, as exemplified by Barthélémy de Chasseneuz's *Catalogus gloriae mundi*, assigned a solid role in the chain of being to every plant, animal, or man-made object.[30] By the close of the seventeenth century, however, the hierarchical organization of nature dissolved into a disarrayed, unsystematic approach to the wonders of the world. Even natural theologians rejected organizing the wonders of the world into a hierarchy, offering instead a smorgasbord of incommensurable evidence for God's greatness. Microscopical insects served up incontrovertible proof of God's greatness in equal manner to lions and eagles.[31] In addition, tourism became a big business, and the number of curiosity cabinets sky-rocketed. There were simply more travellers who made trips for leisure purposes, and there were more public collections that they could compare to each other. Yet, as the ordering power of the chain of being faded, their only escape from incommensurability was the metrics of money, at least until Hutcheson's *Inquiry* and Kant's *Critique of Judgment*, the first works of aesthetics to discuss both the fine arts and natural beauty.[32]

No wonder, then, that almost all travellers wrote down some prices of curiosities. Visiting the cabinet of Dutch collector Simon Schijnvoet in Amsterdam, Uffenbach remarked that a case of the rarest and most beautiful seashells was worth 2000

[28] On the reception of curiosities, see Roelof van Gelder, 'Liefhebbers en geleerde luiden. Nederlandse kabinetten en hun bezoekers, in: *De wereld binnen handbereik. Nederlandse kunst- en rariteitenverzamelingen, 1585–1735*, edited by Ellinoor Bergvelt and Renée Kistemaker (Zwolle, 1992), 259–92; and Rina Knoeff, 'The Visitor's View: Early Modern Tourism and the Polyvalence of Anatomical Exhibits', in: *Centres and Cycles of Accumulation in and around the Netherlands during the Early Modern Period*, edited by Lissa Roberts (Berlin, 2011), 155–75, which also discusses Uffenbach in detail.

[29] On early modern curiosity culture, see Oliver Impey and Arthur MacGregor, *The Origins of Museums: The Cabinet of Curiosities in Sixteenth- and Seventeenth Century Europe* (Oxford, 1983); Ellinor Bergvelt and Renée Kistemaker, *De wereld binnen handbereik. Nederlandse kunst- en rariteitenverzamelingen, 1585–1735* (Zwolle, 1992); Horst Bredekamp, *The Lure of Antiquity and the Cult of the Machine: The Kunstkammer, and the Evolution of Art, Nature, and Technology* (Princeton, 1995); Robert Evans and Alexander Marr, eds., *Curiosity and Wonder from the Renaissance to the Enlightenment* (Aldershot, 2006); Andreas Grote, ed., *Macrocosmos in Microcosmo: Die Welt in der Stube. Zur Geschichte des Sammelns 1450–1800* (Opladen, 1994); Robert Felfe and Angelika Lozar, eds., *Frühneuzeitliche Sammlungspraxis und Literatur* (Berlin, 2006); Dominik Collet, *Die Welt in der Stube: Begegnungen mit Außereuropa in Kunstkammern der Frühen Neuzeit* (Göttingen, 2007).

[30] Barthélémy de Chasseneuz, *Catalogus gloriae mundi* (Lyon, 1546). See also E. M. W. Tillyard, *The Elizabethan World Picture* (New York, 1940).

[31] John Ray, *The Wisdom of God Manifested in the Works of the Creation* (London, 1722), 370–1; see also Bernard Nieuwentyt, *Het regt gebruik der wereld beschouwingen* (Amsterdam, 1720).

[32] The *Inquiry* and *Critique of Judgment* are notable for having a united attention to natural and art objects, as in a curiosity cabinet. Francis Hutchison, *An Inquiry into the Original of Our Ideas of Beauty*

guilders. Even expert naturalists resorted to this discourse. No one could accuse Martin Lister, the author of the multi-volume *Historiae conchyliorum,* of lacking knowledge of seashells. Yet when he travelled to Paris, his reports on shell collections focused both on systematics and money. Discussing the cabinet of Monsieur Buco, he mentioned that the French collector owned 'many very perfect and large ones of Land and Fresh-water *Buccina*', but had few of the specimens belonging to the other genera Lister described in his books. The Englishman then went straight to discuss the price of a bivalve that the Duke of Orleans bought for 900 livres (or 50 pounds sterling), and noted that the 'Duke also offered a Parisian for 32 Shells 11 000 Livres', which the owner refused.[33] Similarly, Lister also started his discussion of the loadstone collection of Butterfield in Paris by mentioning that it was worth 'several hundred pounds sterling', and then proceeded to provide more detailed information on several of the specimens.[34]

A lack of vocabulary for briefly describing and comparing curiosities might well have been one of the reasons why financial judgements appear so frequently in accounts of collections. As Anne Goldgar has shown, collectors used the limited vocabulary of 'smooth', 'marble-like' and a few other terms to describe both beautiful shells and tulips, and frequently included the price of these expensive curiosities in their conversations, as well.[35] Paula Findlen has retraced how the term 'joke of nature' was used to describe particularly interesting specimens in the Baroque, self-referential, boundary-crossing cabinets of curiosities.[36] Lorraine Daston and Katharine Park, in turn, have focused on the shifting referential status of wonder through the medieval and early modern period.[37] Yet, beyond these few terms, there were not that many expressions that travellers could use to compare specimens, or to record their appreciation of them. Despite owning an impressive collection at home, Allard de la Court used a very restricted vocabulary in his diary that consisted of raar (rare), aardig (fine), magnificque (magnificent) and especially fraaij (pretty). As he wrote rather repetitively of his visit of Lienen, the rooms were 'hung with very pretty paintings and carpets, and there is a pretty garden behind this castle, with an Orangerie that has pretty painted flowers'. Similarly, through his four years of travel, Mihály Bethlen used only five terms to evaluate curiosities: 'igen szép (very beautiful), cifra (fine), újság (novelty), külömb-külömb (diverse or exceptional)' and 'csudálatos (wonderful)'.

Bethlen was very much aware of these limits of his language. He constantly complained about the impossibility of briefly describing the rarities he had encountered. The cabinet in Uppsala was full of 'many beautiful rarities, which it

and Virtue in Two Treatises, *edited by Wolfgang Leidhold* (Indianapolis, 2004); Immanuel Kant, *The Critique of Judgment,* translated by James Creed Meredith (Oxford, 2007). On the problems of making sense of cabinets of curiosity, see, next to K. Pomian, Claudia Swan, 'Collecting Naturalia in the Shadow of the Early Modern Dutch Trade', in: *Colonial Botany: Science, Commerce, Plitics in the Early Modern World,* edited by Londa Schiebinger and Claudia Swan (Philadelphia 2004), 223–36.

[33] M. Lister (note 15), 59–60.

[34] M. Lister (note 15), 83.

[35] Anne Goldgar, *Tulipmania: Money, Honor and Knowledge in the Dutch Golden Age* (Chicago, 2007).

[36] Paula Findlen, 'Jokes of Nature and Jokes of Knowledge: The Playfulness of Scientific Knowledge in Early Modern Europe,' *Renaissance Quarterly* 43 (1990), 292–331; Natascha Adamowsky, Hartmut Böhme and Robert Felfe, eds, *Ludi naturae: Spiele der Natur in Kunst und Wissenschaft* (Munich, 2011).

[37] Lorraine Daston and Katharine Park, *Wonders and the Order of Nature 1150–1750* (New York, 1998).

would be too long to describe'.[38] And even if he had had time to write up descriptions, Bethlen feared others back in Transylvania would not have believed him. Curiosities were just too strange. And even when he discarded worries about disbelief, words failed him. As he wrote, the collection of a certain Carlstein in Stockholm contained 'many different shells, ... such beautiful flowery ones, dappled, and of diverse colours that one could not describe or paint them.'[39] Curiosities had the quality of a *je-ne-sais-quoi*, language could not grasp why they appealed to the senses.[40] How much easier was then to simply note the amount these specimens cost. Bethlen might not have been able to explain why a small fish in the same collection appealed to him, but he did remark that it was first offered for a 100 thalers, but was bought for only 30.

In this respect, curiosity culture was somewhat different from the art of painting. As Gerrit Verhoeven has noticed, some well-trained Dutch travellers were ready to apply the concepts of art theory when viewing paintings, and commented on the various aspects of design, coloritto, and clair-obscur.[41] In Paris, Martin Lister was similarly impressed by Rembrandt's three paintings in the collection of Monsieur Viviers. He exclaimed that 'nothing ever came near his colouring for Flesh and Garments', and remarked that all three canvases were 'finisht with all the art and perfection of Colouring, as smooth as any Limning'. Lister's appreciation of coloritto also appeared in his description of the famed Rubens series of Marie de Medicis. He admired Rubens' picturing of flesh, and his use of scarlet, although he criticized the painter for taking liberties when it came to historical accuracy.[42] Clearly, a good two hundred centuries of art theoretical writing did not go to waste. Well-educated travelling gentlemen could rely on their knowledge of Karel van Mander, Gérard de Lairesse, or André Felibien when judging and comparing paintings.[43] And, thanks to Roger de Piles, they could even have compared paintings by ranking them from 0 to 18 across the four axes of composition, drawing, colour and expression, if they so wished.[44]

Compared to the vast theoretical literature on painting, the literature on curiosities was negligible. As part of their preparation for visiting collections, gentlemen could only rely on a handful of oftentimes slim volumes by Quicchelberg, Major, Valentini, or Marperger to train their eyes and judgment.[45] Such works often

[38] 'Vasárnapon .. speculáltuk azt a scriniumot, amellyben vagyon egészen Kűnst Cammara, sok szép raritásokkal, mellyeket mind leírni sok foret.' J. Jankovics, 59.

[39] 'Vadnak más iskátulyákban sok külömb-külömbféle csigahajak, ... oly szép virágosok, tarkák és külömb-külömb színűek, hogy az ember le nem tudná írni, sem megfesteni.' J. Jankovics, 64.

[40] On the je-be-sais-quoi, see Richard Scholar, *The Je-ne-sais-quoi in Early Modern Europe: Encounters with a Certain Something* (Oxford, 2005).

[41] G. Verhoeven (note 9), 179. See also Gerrit Verhoeven, 'Mastering the Connoisseur's Eye: Paintings, Criticism, and the Canon in Dutch and Flemish Travel Culture, 1600–1750', *Eighteenth-Century Studies* 46 (2012), 29–56.

[42] M. Lister (note 15), 40–1.

[43] On the professionalization of art appreciation, see Charlotte Guichard, *Les amateurs d'art au XVIIIe siècle* (Paris, 2008); and Charlotte Guichard, 'Taste Communities: The Rise of the *Amateur* in Eighteenth-Century Paris', *Eighteenth-Century Studies* 45 (2012), 519–47.

[44] Roger de Piles, 'Balance des peintres', in id., *Cours de peinture par principes* (Paris, 1708), 489–98. I am not aware of any actual travelers using such a scoring board on their trips.

[45] The literature on these works is scarce, but, see for Marperger, John Jeremiah Sullivan, 'The Princes: A Reconstruction', *The Paris Review* 200 (2012), 35–88; for Major, Cornelius Steckner, 'Das Museum Cimbricum von 1688 und die cartesianische "Perfection des Gemüthes." Zur Museumswissenschaft des Kieler Universitätsprofessors Johann Daniel Major (1634–1693),' in: *Macrocosmos in Microcosmo: Die Welt in der Stube. Zur Geschichte des Sammelns 1450–1800,* edited by Andreas Grote (Opladen, 1994), 603–28; and also Paula Findlen, *Possessing Nature: Museums, Collecting, and Scientific Culture in Early Modern Italy* (Berkeley, 1994).

provided practical advice for visitors (wash your hands!), dissected the etymology of the word 'museum' and its cognates, and, most importantly, analyzed in detailed narratives a selection of objects that visitors could expect to encounter in a cabinet. As Rina Knoeff has brilliantly shown, such a narrative approach to specimens also coloured early modern tourists' appreciation of anatomical theatres.[46] Since the literature offered few guidelines for the immediate, aesthetic appreciation of such objects, written and human museum guides spiced up their tours by telling hair-raising, curious stories about certain specimens, or waxed lyrically about their potential to reform the national economy. Such anecdotal information was helpful because they made sense of otherwise baffling specimens, and also increased their worth, and, as a result, many museum curators made a special effort to collect these stories. In his instructions for potential donors, for instance, the Dutch museum curator Arnout Vosmaer had a long list of questions for gifts of fish. Since fish preserved in cloudy spirit of wine soon lost their colours, Vosmaer wanted to know their original hue, their place of origin, and whether they were edible.[47]

Yet the proliferation of such narrative information only strengthened the lack of explicit guidelines about judging, evaluating and comparing specimens. As Hans Ulrich Gumbrecht has argued, art and the sports both have a *presence* that evoke visceral reactions from viewers, but one does not necessarily possess the language to describe this.[48] It was this *presence* of curiosities that visitors to cabinets were unable to verbalize. The contemporary museum literature did not really provide them with a vocabulary to use when talking about their immediate reactions to curiosities. And when it did provide suggestions for making such judgments, it was in the language of money.[49]

Monetary language came naturally to the study of cabinets. As the German polyhistor Johann Daniel Major pointed out when discussing the synonyms for *Kunstkammer*, the word *gazophylacium* originally referred to a repository of chattel, or, a chest of gold, and *thesaurus* had similar financial connotations, as well.[50] These treatises could also treat individual curiosities in monetary terms, as well. Take Jencquel, for example, who wrote one of the lengthiest treatises in the field, and could even figure out the price of the cabinets of Antiquity. As he told his readers, King Solomon owned an 'expensive, and artful treasury filled with many curiosities', and, even more specifically, Alexander the Great gave Aristotle 800 talentums (which was almost 5 tons of gold, Jencquel clarified) to research the nature of animals. What a

[46] R. Knoeff (note 28).

[47] Arnout Vosmaer, *Memorie van A. Vosmaar inhoudende de zaaken, met welken alle Reiziger en Kooplieden, . . ., my zouden konnen verplichten* (The Hague, Nationaal Archief, Archief Vosmaer 548, inv. no. 2.21.271, bestanddeel 68).

[48] Hans Ulrich Gumbrecht, *The Production of Presence: What Meaning Cannot Convey* (Stanford, 2004); for an application of Gumbrecht to medical museums, see Thomas Söderqvist, Adam Bencard, and Camilla Mordhorst, 'Between Meaning Culture and Presence Effects: Contemporary Biomedical Objects as a Challenge to Museums', *Studies in History and Philosophy of Science* 40 (2009), 431–8.

[49] On the aesthetic appreciation of curiosities, see James V. Mirollo, 'The Aesthetics of the Marvelous: The Wondrous Work of Art in a Wondrous World', in *The Age of the Marvelous,* edited by Joy Kenseth (Dartmouth, 1991), 61–80; and Delphine Trébosc, 'Expérimenter les critères esthétiques: Le rôle des *naturalia* dans la collection d'Antoine Agard, orfèvre et antiquaire arlésien, à la fin de la Renaissance', in: *Curiosité et cabinets de curiosités*, edited by Pierre Martin and Dominique Moncond'huy (Neuilly, 2004), 65–76.

[50] Johann Daniel Major, *Unvorgreiffliches Bedencken von Kunst- und Naturalienkammern insgemein*, in: *Museum Museorum, oder vollständige Schau-Bühne aller Materialien und Specereyen,* edited by Michael Bernhard Valentini (Frankfurt am Main, 1704), 6–7.

pity such sponsors no longer exist, the author bemoaned.[51] And when it came to describing more recent cabinets, Jencquel's language differed a little from travellers' accounts. He noted about Bassano's *The Ark of Noah* in the Schloss Ambras in Innsbruck that it was 'admirable', and that the Grand Duke of Tuscany had offered once 100 000 thalers for it. Less impressively, the cabinet of Erasmus of Rotterdam had been sold for 10 000 thalers. The tapestries in Florence had cost 150 000 thalers to make, on the other hand, and Peter the Great bought a cabinet of curiosities for 80 000 guilders from merchants in Amsterdam and Hamburg.[52] In an ideal world, one would have loved to know the price of every collection in the world. In an appendix to the *Museographia,* Jenckel's editor Johann Kanold even went as far as asking his readers to send him information on the financial value of the cabinets they owned. As Kanold wrote, he was eager to learn the type of their cabinets, the classes of materials contained therein, with a list of the most curious and rarest objects, and the owner's reflections own them together with provenance records, and, last but not least, the price of the cabinet.[53]

Finances were indeed important, agreed the early cameralist Paul Jakob Marperger, who authored *Die geöffnete Raritäten- und Naturalienkammern* as well as numerous volumes on banking, forging money, and trade with Russia. Talking about the collections in various European cities, he often mentioned that a particular item was 'costly'. Precise prices featured less often in his treatise, though he did mention an ebony cabinet in Florence, estimated at 600 000 scudi, and the shell collection of Johan Volckers in Amsterdam, worth a 100 000 guilders.[54] And when it came to offering guidelines for aspiring collectors, he suggested that they keep a cabinet with several drawers to manage their affairs. One drawer would contain museographical books and travel accounts, for example, another one would be reserved for their correspondence about the cabinet, and the third one would hold their receipts of purchase for all the curiosities.[55]

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[51] 'Dem ungeachtet gibt uns der Grund-Text vollkommene Versicherung, daß Salomon ein sowol kostbares, als künstliches und mit vielen Raritäten angefülltes Schatzhaus gehabt habe.' C. F. Neickelius [Caspar Friedrich Jencquel], *Museographia, oder Anleitung zum rechten Begriff und nützlicher Anlegung der Museorum,* 4 vols, edited by Johann Kanold (Leipzig, 1727), 11.

[52] 'in der That ist dasselbe ein admirables stücke: Man sagt, der Groß-Hertzog von Toscana habe einst 100,000 Thlr. dafür gegeben wollen.' Neickelius (note 51), 22. On Erasmus, see Neickelius (note 51), 25; on Florence, see Neickelius (note 51), 37; and on Peter the Great, the text writes that 'Dann est ist bekandt . . . auch noch das letzte mal vor 5. a 6. Jahren beydes hier in Hamburg von einem berühmten Materialisten, als auch in Holland ein Rarität-Cabinet für 80,000 Gulden gekaufft.' C. F. Neickelius (note 51), I, 83.

[53] 'Der verschiedene Preis, mit dessen vermutlicher Ursache annectiret werden.' C. F. Neickelius (note 51), 464.

[54] 'Das herrlichste rarest und kostbarst ist in dem Saal zwischen diesen Zimmern zu sehen, der il ribuno genennet wird. Insonderheit sind noch fünff Cabinette alle mit unaussprechlicher Kostbarkeit angefüllet, darunter das Cabinet von Ebenholz alleine 600,000 scudi wehrt geschätzet wird.' [Paul Jakob Marperger], *Die geöffnete Raritäten- und Naturalienkammern* (Hamburg, 1705), 154; and on Volckers: 'Vor kurtzen ist daselbst des beruffenen Johann Volckersen vortreffliche Raritäten-Kammer unwiet von der Brauer Kraffet bey der Harlemer Poort zu sehen gewesen, da die Muscheln allein bey 100,000 Gulden sindwehrt geschätzt wurden.' P. J. Marperger, 159. A third example is the gift of a Polish aristocrat to Loreto, worth 130,000 thalers, mentioned in P. J. Marperger, 163. For Marperger, I relied on Mark Dion's reprint edition from 2002.

[55] 'In dem Dritten sollten die Rechnungen der angewendeten Unkosten und die Catalogi ihre Stelle haben, dren billig drey seyn müssen, einer nach dem Alphabet, und der Dritte über die Auctores, bey denen von den fürhandenen Raritäten Nachricht zu finden. Bey dem ersten solte mit angedeutet seyn, wenn ein jedes Stück dazu kommen, woher, und von wem. Endlich in dem Vierten solte colligiret werden, was in den vorgeschlagenen Conferentzen schrifftlich concipiert worden.' P. J. Marperger, 22.

And if learned tourists turned to more general travel guides, they would still encounter the same language of money. Brice's *A New Description of Paris*, for example, was an essential guide for all late seventeenth-century visitors to the French capital, with a rich vocabulary to describe the sights and curiosities of the city. As the *New Description* revealed, curiosities could be admired for their size, the splendour of the material, e.g. silver and gold, their variegated colours, or, in the case of a Poussin painting or a medieval miniature, their design.[56] Yet such judgments could easily be translated into monetary terms, as in the case of the brass urn that contained the heart of Henry II. As Brice claimed,

'men of judgment admire this Piece for the Beauty of the Design. And it is said that a curious Person of the last Age offered to give for it 10,000 Crowns and a Copy of the same to be made as exactly as could be and placed in the Room'.[57]

Conflating the metrics of money with the appreciation of craftsmanship, Brice also informed readers that, within the Petit Bourbon palace, 'most observable is a great Ship of Gold inriched with Diamonds, of most curious Workmanship, made by the Sieur Balin, and valued at one hundred thousand crowns'.[58]

Accounts of London were similarly peppered with financial concerns. As Claude Jordan and François Colsoni reminded readers in almost identical language, the English crown jewels in the Tower had 'an inestimable price, because the stones in them are so precious, and of such size, and of such numbers, that the eyes cannot fully grasp them', and then offered advice on how much to tip guards, librarians and museum curators throughout the city [59] And, in Amsterdam, tourists learned from their travel guide that rent on the Damrak could reach up to 1500 guilders per year, and that the paintings and East Indian curiosities in the stately homes of the Keizersgracht were worth fifty, a hundred, or even two hundred thousand guilders.[60]

The experiences of travellers, and their monetary attitudes, were strongly conditioned both by these travel guides and *museographias*, I would argue. When arriving in Amsterdam, the astronomer Thomas Bugge purchased *Le Guide d'Amsterdam* at the bookshop of Harrevelt, because it was a 'very useful book for foreigners', while Zacharias Conrad von Uffenbach consulted Jordan's *Voyages historiques,* Valentini's *Museum museorum,* and also Marperger's *Geöffnete Raritäten- und Naturalienkammern*.[61] These works even helped travellers select which curiosities were especially noteworthy in a cabinet. Of all the exhibits at the Royal Society, Mihaly Bethlen probably singled out the *pudenda* of a woman in his diary because the *Guide de Londres*, published just a year before his arrival in England, mentioned this

[56] [Germain Brice], *A New Description of Paris . . . Translated out of French*, 2nd edition (London, 1688), 25 on materials, 16 on colours, 131 on Poussin, and 44 on miniatures. On Brice, see Germain Brice, *Description de la ville de Paris,* edited by Pierre Codet (Geneva, 1971).

[57] G. Brice (note 56), 138.

[58] G. Brice (note 56), 14 for the Bourbon palace, and 59 for the library.

[59] 'Toutes les choses cy-dessus declarées, sont toutes de Vermeil d'Oré, d'une fabrique admirable et d'un Prix inestimable, car les Pieres qui y sont, sont si precieuses et d'une telle grosseur, et en si grand nombre, que l'oeil ne se peut pas assez rassasier de les voir.' François Colsoni, *Guide de Londres* (London, 1693), 31; copied with some variation in Claude Jordan, *Voyages historiques de l'Europe,* 8 vols (Amsterdam, 1718), 4, 443.

[60] 'Men vindt hier Huyzen zoo overkostelijk van Huysraat als Schilderyen en Oost-Indische vercierselen voorzien / dat de waarde van dien als onwaardeerlijk is / ja zommige zijn wel vijftigh duyzent / andere wel honder duyzendt en tweemaal zoo veel aan 't kostelyk Huysraat waardigh'. M. Fokkens, *Beschrivinge der wijdt-vermaarde Koop-stadt Amstelredam*, 2nd ed. (Amsterdam, 1662), 69; for the note on the Damrak, see M. Fokkens, 69.

[61] R. van Gelder (note 28), 262.

item first when discussing the collection.[62] Yet the rhetorics of finance also flowed in the reverse direction, from travellers to the guide books. For his *Museographia,* Jencquel frequently culled from actual traveller's accounts. He learned about the value of Erasmus' cabinet from Monconys, and Misson's *Nouveau voyage d'Italie* was his source about a jade stone in Frankfurt that cost 1600 thalers to the owners.[63] Such museographical works thus did not only instruct travellers how to voice their experiences in financial terms, but, by drawing from such travellers, these books also helped canonize the brief, telegraphic language of observation in a feedback loop.

4. The metrics of money

The language of finance brought its own problems to the evaluation of curiosities. How did money function as the dual marker of highly contingent purchase price and aesthetic value at the same time? Did learned travellers use financial terms only as indicators of purchase price, without connecting it to more absolute terms of comparison and judgment? Or did they consider purchase prices not subject to fluctuation, and stable enough to stand in for absolute judgment about the non-financial value of a specimen?

For some travellers, the price of curiosities in collections simply served as data points for making informed judgments on their future purchases. Thomas Bugge's trip across Northern Europe was motivated by his need to refurbish the observatory at the University of Copenhagen, and, when in London, he made prodigious purchases of microscopes, prisms, drawing instruments, and an air pump with some 'large receivers for animals'.[64] When he noted down the price of two steam engines at Leiden University, both valued at 1000 florins, it might well have been in preparation for acquiring a similar machine for Copenhagen. His notes about a visit to Jan Paauw's instrument shop in Leiden were also written with an eye towards buying. Bugge marked down the price of a pyrometer (125 florins), and 'all sorts of pumps of excellent workmanship' (260 florins), clearly more than what he bargained for. When in London, he would pay only 11 pounds 15 shillings for a pump, just over 50% of what Paauw would have charged for it.

The financial value of a curiosity could be a useful indicator of purchase prices in a shop especially because the boundary between cabinet and shop was rather porous. Travellers sometimes used the same word to describe both. The English traveller Richard Rawlinson, for instance, called the print shop of Willem Havenberg in Alkmaar a 'collection', and then bought from him a Dürer, and two prospects of old castles.[65] His phrasing should not appear odd to us. Tourists frequently visited curiosity shops only to admire the commodities exhibited on the shelves, without an intention to buy. The instrument maker Adam Steitz went as far as setting up several experiments for Bugge in his Amsterdam shop, and then arranged for the Danish astronomer a visit to the Mennonite Theological Seminary's collection, where the shopkeeper doubled as a curator.

[62] J. Jankovics, 88. For the English guide, see F. Colsoni (note 59), 11.
[63] C. F. Neickelius (note 51), 195.
[64] Kurt Moeller Pedersen and Peter de Clercq, *An Observer of Observatories: The Journal of Thomas Bugge's Tour of Germany, Holland, and England in 1777* (Aarhus, 2010), 195.
[65] K. van Strien (note 19), 296.

Conversely, curiosities in private collections could also be sold for money. While the Amsterdam naturalist Albertus Seba's private collection was housed separately from his pharmacy, this did not mean that it was not on sale. He sold his first cabinet to the Russian Czar Peter the Great in the mid-1710s, and was ready to sell another collection by the end of the 1720s, as Jencquel's *Museographia* reported to its readers. The *Museographia* described Seba's cabinet of *naturalia* in great detail, and then spread the news that the owner was willing to part with it for 25 000 guilders.[66] In this case, the museum guide's mention of a financial value served as the specification of the asking price in an advertisement for sale.

Yet learned travellers did not only focus on the financial value of curiosities because they wanted to buy them. Most educational travellers from Hungary could not even dream of acquiring expensive specimens. Modestly supported by a variety of patrons, the Transylvanian Ferenc Pápai Páriz probably found the entrance fee of the zoo in Dresden (½ thaler) already steep. When he noted that the animals ate 30 000 thalers worth of meat every year, he was not contemplating establishing such a menagerie back home.[67] His mention of the amount was an expression of astonishment and veneration, and signified the intrinsic value of the animals in numerical terms. Richer tourists often used financial terms for similar purposes. Uffenbach's emphasis on the price offered for the *Anatomy of Tulp* did not mean he wanted to purchase it. He did not even jot down Rembrandt's name, which would have been useful had he really wanted to buy either this or another painting by the artist. Even more so, Allard de la Court's remarks on the Prussian crown jewels did not mean that he wanted to have himself crowned on a later occasion. He was genuinely impressed by the jewels, and their high price offered a quick way to record his admiration of them.

Matching financial price with absolute value did not mean, however, that travellers subscribed to a theory of fixed prices. They used monetary terms as substitutes for aesthetic and scientific value only for want of a better metrics, but they did not consider price itself absolute and stable. While material or labour theories of value proliferated in this period, travellers did not subscribe to such approaches to explain why prices corresponded to inherent value. The painters Adriaen van der Werff and Henrick van Limborch priced their paintings based on the amount of half-days they worked on them, but the Scottish James Boswell was possibly the only tourist interested in such details.[68] When viewing the monumental painting of the princely menagerie in Kassel, he remarked that Johann Melchior Roos 'lived here three years to paint this picture for which I was told he had 1300 ducats', a double

[66] C. F. Neickelius (note 51), IV, 140. Seba was very good at estimating the price of his cabinet, which would only be auctioned in 1752, after the collector's death, bringing in 24 400 guilders. Hendrick Engel, 'The Sale-Catalogue of the Cabinets of Natural History of Albertus Seba (1752): A Curious Document from the Period of *naturae curiosi*', *Bulletin of the Research Council of Israel Section B: Zoology* 10 (1961), 119–31; Dániel Margócsy, *Commercial Visions: Science, Trade and Visual Culture in the Dutch Golden Age* (Chicago, forthcoming).

[67] 'Ezekre minden esztendoben rámegyen 30 000 tallér ára hús, azt mondja az inspektor.' Ferenc Pápai Páriz, 'Kincseskamrácska, avagy Írásművecske', in: *Békességet magamnak, másoknak*, edited by Géza Nagy (Bucharest, 1977), 135–75, 148.

[68] Guido M. C. Jansen, 'De "Notitie der dagelijxe schilderoeffening" van Henrik van Limborch (1681–1759)', *Bulletin van het Rijksmuseum* 45 (1997), 26–67; Barbara Gaehtgens, *Adriaen van der Werff 1659–1722* (Munich, 1987), 442–4.

appreciation of the enormous expense and time investment.[69] Otherwise, travellers paid special attention to the craftsmanship of various curiosities, and acknowledged the divergent skill sets of artisans. In a field where talent greatly varied, a labour theory of value could not explain why Raphael was better than Joost Momper. It could also not account for the high price of *naturalia*, which were not produced by human hands, a severe shortcoming in an age where some exotic seashells sold for more than a Vermeer.

Material value could also not account for the price of a curiosity, although it had a more pronounced role than labour time. In the case of jewellery, the value of silver, gold and precious stones clearly accounted for much of the price of an earring or a crown. Tourists were not ignorant of this phenomenon. As Boswell remarked, the gold employed at illuminating a medieval Bible in Gotha was valued at a thousand ducatons, although he did not extrapolate from this to estimate the full price of the finished work.[70] Mihály Bethlen was less careful when talking about numismatic collections. Talking about Carlstein's collection in Stockholm, he noted that it contained 'many big, golden-silver coins, so that in one or two [drawers] there are 50–55 goldgulden'.[71] For Bethlen, clearly, these coins were valued solely for their metal content, and not their historical value. A big mistake, Paul Jakob Marperger warned (see figure 3). His *geöffnete Raritäten- und Naturalienkammern* told a cautionary tale about an Amsterdam pharmacist, who inherited a collection of Roman coins, but had no knowledge of numismatics. When the butchers and fishmongers refused to accept these old coins, he had them molten into a mortar, unaware that ancient coins were more valuable than the gold, silver or copper within them.

Clearly, the value of an object could not be reduced to material content. Prices were determined by a more complex equation, unless one accepted that financial value was simply irreducible and fleeting. As John Locke argued, the exchange value of commodities was only '*pro hic et nunc*', 'for here and now', and could change as supply and demand waxed and waned. Furthermore, money could only serve as a fixed measure of this exchange value 'whilst the same quantity of it [was] passing up and down the Kingdom in Trade'. Once you altered the amount of coins in circulation, the value of money itself changed, as well.[72]

Other tourists agreed with Locke, a fellow traveller to France and the Netherlands who also carefully wrote down the price of curiosities in his diaries.[73] They realized that the value of money constantly changed, and, consequently, the prices of curiosities would fluctuate, similarly to the price of other commodities. Money could only provide a fuzzy metrics: the price of a specimen would therefore be only an

[69] Marlies K. Danziger, *James Boswell: The Journal of his German and Swiss Travels* (Edinburgh, 2008), 189. Danziger also publishes Boswell's detailed account books from his trip.

[70] M. K. Danziger (note 69), 173.

[71] 'Más, kisebb iskátulyás ládában tart az európai királyok pénzit, . . ., sok szép nagy, arany-ezüst pénzek, úgyhogy edgynémelyben vagyon 50–55 arany.' Bethlen, 65. The Hungarian term for goldgulden is arany, which refers both to the metal (Au) and to the coin, creating a strong ambiguity between content, numismatic form, and financial value.

[72] John Locke, *Some Considerations,* in: *Locke on Money*, 2 vols, edited by Partick Hyde Kelley (Oxford, 1991), 258–60. On Locke's understanding of money, and gold, see Daniel Carey's article in this issue; as well as Karen I. Vaughn, 'John Locke and the Labor Theory of Value', *Journal of Libertarian Studies* 2 (1978), 311–26.

[73] On Locke's travels in France, see John Lough, *Locke's Travels in France 1675–1679* (Cambridge, 1953). On Holland, see C. D. van Strien, *British Travellers in Holland during the Stuart Period: Edward Browne and John Locke as Tourists in the United Provinces* (Leiden, 1993).

Figure 3. Compare the nominal value of coins with the aesthetic value of the beaker. T. R., *Beaker of Silver Gilt, Set with Thirty-Seven Coins*, c. 1690, © The Trustees of the British Museum.

approximate, and messy, estimate of its real value.[74] This was an experience shared by all in contemporary Europe, where the exchange value of money was volatile. Historians' claims about low long-term inflation rates in this period often overshadow the higher, short-term fluctuation of prices.[75] Prices changed not only because of the changing supply of commodities, but also because clipping and sweating debased the value of currency. In the Netherlands, the metal content of actual coins became so low that virtual guilders, stored in a bank account, were valued more highly than actual guilder pieces. An imaginary guilder deposited with the Amsterdam Exchange Bank was worth roughly four percent more than a real,

[74] On similar approaches in anthropology, see Jane Guyer, *Marginal Gains: Monetary Transactions in Atlantic Africa* (Chicago, 2004); Jane Guyer, ed., *Money Matters. Instability, Values and Social Payments in the Modern History of West African Communities* (Portsmouth, 1995); Wim van Binsbergen and Peter Geschiere, eds., *Commodification: Things, Agency and Identities: The Social Life of Things Revisited* (Münster, 2005).

[75] Robert Jütte, *Poverty and Deviance in Early Modern Europe* (Cambridge, 1994), 27. See also Daniel Carey and Christopher J. Finlay, eds. *The Empire of Credit: The Financial Revolution in the British Atlantic World, 1688–1815* (Dublin, 2011).

one-guilder coin.[76] This was quite a difference. One wonders, for instance, whether Seba's asking price of 25 000 guilders for his cabinet was in *florin banco* (virtual money) or in *florin current* (the real coins circulating). A four percent difference between the two *florins* amounts to 1000 guilders, the annual salary of a well-off professor.

Other countries were similarly beset with the problems of debased coins. In Transylvania, just a few years after Teleki's and Bethlen's return, the uprising of Prince Ferenc Rákóczi II against the Habsburgs led to quick inflation. To finance his war, Rákóczi minted large batches of copper *poltura* coins, whose nominal value did not correspond to the metal content. In the following years, the *poltura* had to be devalued repeatedly, leading to complaints that the prince was 'robbing the whole Hungarian nation from all its good money, and we were left with the damned bad money'.[77] And England was no exception, either. Because of the debased silver content of shillings, for instance, a gold guinea's value rose from 20 shillings under Charles I to 30 shillings in the early years of the Glorious Revolution, prompting John Locke to propose his theory and reform of monetary policy. As a pamphleteer wrote in these years,

'all the weighty Money [*guineas*] disappear'd, and was hoarded up, as being of a certain Value, and therefore to be reckon'd real Treasure, and more worth than Gold, when it had obtain'd such *an Imaginary* (and I might add) *criminal Value,* and evidently better than the current Money [*shillings*], which had lost so much of its Weight by clipping.' [78]

The exchange rate of guineas was absurdly high. In the language of the pamphlet, the everyday realities of finance became 'imaginary' and fanciful, and the reasonable, nominal exchange rate became an unattained ideal. It took several acts of Parliament, and serious government intervention, to make sure that the guinea's value fell back to 21 shillings sixpence in 1698.

Travellers were especially exposed to the fluctuations of monetary value. Exchange rates between currencies constantly changed, as Pál Teleki learned when he discussed his travel plans with his Viennese banker Ingram. He attempted to convince Ingram to offer a fixed exchange rate from Hungarian florins to German and Dutch currencies for the duration of the trip, but the banker refused. Ingram told Teleki that 'when the young gentleman will need money, the matters of money will be changing again, and together with it the exchange rate, and now no one can give a definite answer for the future'. And, should Teleki require more funds during his long years of travel than what he had carried on his body, the news was even more dire. His

[76] William Roberds and Stephen Quinn, 'An Economic Explanation of the Early Bank of Amsterdam, Debasement, Bills of Exchange and the Emergence of the First Central Bank', in *The Development of Financial Markets and Institutions,* edited by Jeremy Atack and Larry Neal (Cambridge, 2009), 32–70.

[77] '. . . az egész magyar nemzetet minden jó pénziből kifosztá, az átkozott rossz pénz marada nyakunkban, s már semmi hasznát nem veheti senki.' Mihály Cserei, *Erdély históriája (1661–1711),* edited by Imre Bánkúti (Budapest, 1983), 353. On the repeated devaluation of the poltura, see the memoirs of Louis Lemaire, reprinted in Louis Lemaire, 'Beszámoló mindarról, ami a Magyarországi háborúban történt', in: *Rákóczi tükör. Naplók, jelentések, emlékiratok a szabadságharcról*, edited by Béla Köpeczi and Ágnes R. Várkonyi, 2 vols (Budapest, 1973), 2, 176–288, 243 and 257.

[78] [J. R.], *A Letter of Advice to a Friend about the Currency of Clipt-Money* (London, 1696). This concept of imaginary money is different from the one proposed in Luigi Einaudi, 'The Theory of Imaginary Money from Charlemagne to the French Revolution', in: *Enterprise and Secular Change*, edited by F. C. Lane and J. C. Riemersma (Homewood, 1953), 229-61. For Einaudi, imaginary money is much like the *florin banco* discussed above, used in transactions and contracts, but different from coins.

mother was able to send gold coins from Transylvania with local Greek merchants who travelled to the Leipzig trade fair, but it was necessary to use professionals for sending money further. Their commission for sending money from Transylvania to Germany was exorbitant: 36 to 38 per cent, as Teleki constantly complained to his mother back home.[79] His wealth quickly evaporated when he set out to travel. A decade later, the commission fee for sending money abroad became even higher. In 1711, Ferenc Pápai Páriz jr., son of the aforementioned Pápai Páriz, reported to his patron in Transylvania that 50% was now the accepted rate.[80] Similarly, English pound sterling had a much higher value at the American colonies than in London because it was expensive to ship currency across the Atlantic. To stimulate the circulation of these coins, colonial authorities set the legal value of these coins at 133–178% of their metal value.[81] The value of money increased and decreased as you moved from periphery to centre, and back to the periphery, again.

If the value of money was subject to constant fluctuation, it is no surprise that travel diaries tended to treat the exact price of curiosities with a healthy dose of scepticism. They frequently framed price quotes with the phrase 'estimated' or 'geschätzt', withholding judgment whether such a claim was actually valid. For example, Jencquel related that some thought that a ducal drinking cup in Wolfenbüttel was worth 60 000 thalers. Yet others claimed it could go for 90 000 thalers, and the Archduke's mother's will set its value at 150 000 thalers.[82] There was no clear, interpersonal agreement how much a curiosity was really worth. One could use previous sales prices only as a ballpark estimate. Even owners could treat their price quotes with a grain of salt. When he offered his library to Prince Eugen of Savoy, Uffenbach strategically claimed that it was really worth 20 000 écus. At the same time, he was willing to part with it for as little as 12 000 écus, although he was sure the prince would be more generous than that.[83] The flexible relationship between price and intrinsic value allowed a room for haggling, a common practice in all areas of commerce in those days.

In many cases, travellers quoted the sales price as a measure of humankind's foolishness, and not the real value of the curiosity. We all are familiar with the criticism showered at tulip enthusiasts after the crash of the tulip market in 1638, but fans of other curiosities did not escape such moralizing judgments, either. In Paris, Martin Lister remarked how the Duke of Orleans once offered a Parisian 11 000 livres for only 32 shells, and when the owner refused, the duke replied 'That he knew not who was a greater Fool, he that bid the Price, or the Man that refused it'.[84]

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[79] Zs. Font (note 4), 39.

[80] '. . . az aranyban igen sok kárunk lészen, legalább minden 100 aranybol defalcalodik 50 forint.' Ferenc Pápai Páriz jr. to Sándor Teleki, September 20, 1711, in: *Peregrinuslevelek 1711–1750. Külföldön tanuló diákok levelei Teleki Sándornak,* edited by József Jankovics (Szeged, 1980).

[81] E. James Ferguson, *The Power of the Purse* (Chapel Hill, 1961), 4.

[82] 'Was aber eigentlich die Würde oder den Preis dieses so hochschätzbaren Gefässses belanget, so ist dasselbe von etlichen auf 60000 von andern auf 90000. in letztem mütterlichen Hoch-Fürstl. Testament aber auf 150000 Rthlr. Angesetzet worden.' C. F. Jencquel, I, 135. For a somewhat different example of divergent prices, where the Dutch claimed that paradise birds, given as a gift to the Ottoman Sultan, were much more expensive than what they had actually paid for them, see Claudia Swan, 'Birds of Paradise for the Sultan: Early Seventeenth-Century Dutch-Turkish Encounters and the Uses of Wonder', *De zeventiende eeuw* (2013), forthcoming.

[83] Zacharias Conrad von Uffenbach, *Commercii epistolaris Uffenbachiani selecta*, 5 vols (Ulm, 1753-5), IV, 419–20.

[84] M. Lister, 60.

Such a price was clearly an aberration, and even the Duke of Orleans would not make the same offer again to the greedy collector.

The imperfect knowledge of buyers and sellers could also result in an underestimation of a curiosity's true value. The English pharmacist James Petiver had such an experience in Amsterdam, where he travelled to buy curiosities in commission for Hans Sloane. At the auction of Paul Hermann's widow, he purchased a mother-of-pearl for two guilders 12 stuivers, a paltry sum, as he wrote, for 'I veryly believe ye whole sold not for wt ye Spiritts and Glasses cost'.[85] The price reached at the auction mirrored more closely the cost of preservation than the real value of the object. If only the other bidders had known what Petiver was getting away with.

Yet the foolishness of actual prices did not necessarily mean that, in principle, money could not function as a proper estimate of value. Just as financial theorists wished to reform currency so that nominal value corresponded exactly to metal content, so did the discourse on curiosities held that, in an ideal world, the metrics of finance would express true value. If prices had been determined by well-trained connoisseurs (to use the parlance of economics, no information asymmetry had existed), they would have correlated perfectly with intrinsic worth, many collectors hoped. In his *Museographia,* for example, Jencquel recounted how a real *Schlangencrone* was mistaken for a snail, and sold for 20 schillings instead of the 50 Reichsthalers that Jencquel deemed to be its real value.[86] Foolish people paid the incorrect price for this curiosity, but true connoisseurs could determine how much it really should have cost. And the Antwerp print dealer Joannes Meytens operated within the same conceptual framework when he wrote about Rembrandt's *Hundred Guilder Print* that

'I know that it sold on various occasions in Holland for one hundred guilders and more and that it is as large as this sheet of paper, especially elegant and fine, although it should only cost thirty guilders, and beautiful and clear'.[87]

Rembrandt was great, but not *that* great (see figure 4).

Petiver also used the idealized metrics of money to rectify the value of too highly estimated collections. When he visited Seba in Amsterdam, the pharmacist offered to sell his butterflies to him for 200 guineas, which Petiver thought excessive, writing that 'I would have ventured to have given him 50 for them'. Looking at the same collection, driven by a desire for profit, the two naturalists ended up putting a different price tag on it. The refusal of purchase did not mean, however, that Petiver completely rejected Seba's metrics for comparing and evaluating insect collections. Talking about his own cabinet in London, he told Seba that, 'at his computation mine was worth at home 1 000 pounds tho' I must confess I could not vye with them as to their perfection'.[88] You might not have agreed on a sales price. But once you have come to an agreement with your peers on a metrics of measurement (Seba's butterflies were worth 200 guilders, and not 50), you could use financial value to signal the comparative value of collections in a successful manner.

[85] James Petiver to Hans Sloane, June 29, 1711, British Library MS Sloane 3337, f. 160.

[86] C. F. Neickelius (note 51), IV, 8. A 'schlangencrone' was a little white bone that grew on the head of a white snake from the spittle of another snake, as explained by Johannes Theodor Jablonski, *Allgemeines Lexicon der Künste und Wissenschaften* (Königsberg and Leipzig, 1746), 1000. I thank Christian Reiss for directing me to Jablonski.

[87] 'The Hundred Guilder Print', online catalog entry, Rijksmuseum Amsterdam, http://www.rijksmuseum.nl/aria/aria_assets/RP-P-OB-601?page=2, consulted on October 18, 2012.

[88] James Petiver to Patrick Blaier, February 12, 1711/2, British Library MS Sloane 3338, f. 28v.

Figure 4. Rembrandt van Rijn, *The Hundred Guilder Print*, etching, first state, c. 1648, © The Trustees of the British Museum.

5. Reshaping the gift exchange of the republic of letters

The financial discourse of appreciating curiosities has important repercussions for our understanding of the early modern Republic of Letters. [89] The historiographical tradition has tended to understand the scholarly networks of this period as governed by reciprocal, gift exchanges. According to this interpretation, humanists and natural philosophers of this period disclosed information in exchange for honorific gifts, such as membership in an academy, and shunned financial remuneration. As a result, they contributed to the development of the Mertonian norms of openness in modern science.[90] And, following in the footsteps of the anthropologist Marcel Mauss, some historians have argued that scholarly gift exchange was a force that provided the social glue and ethos for the Republic of Letters, binding its participants together in expectations of gift and return gift.[91]

[89] Lorraine Daston, 'The Ideal and the Reality of the Republic of Letters in the Enlightenment,' *Science in Context*, 4 (1991), 367–86; Anne Goldgar, *Impolite Learning: Conduct and Community in the Republic of Letters* (New Haven, 1995); Anthony Grafton. 'A Sketch Map of a Lost Continent: The Republic of Letters,' *Republic of Letters* 1 (2009), http://rofl.stanford.edu/node/34; see also the whole issue of the *Republic of Letters*, 1 (2009); Dena Goodman, *The Republic of Letters: A Cultural History of the French Enlightenment* (Ithaca, 1994); Peter N. Miller, *Peiresc's Europe: Learning and Virtue in the Seventeenth Century* (New Haven, 2000); Hans Bots and Françoise Waquet, eds., *La République Des Lettres* (Paris, 1997).

[90] For the original formulation of Mertonian norms, see Robert Merton, 'Science and technology in a democratic order', *Journal of Legal and Political Sociology* 1 (1942), 115–26.

[91] Marcel Mauss, 'Essai sur le don. Forme et raison de l'échange dans les sociétés archaïques', *L'année sociologique*, Nouvelle série, 1 (1923–4), 30–186.

As I have argued elsewhere, gift exchange might not be the most appropriate concept when turning to the curiosity culture of early modern European science.[92] By the end of the seventeenth century, commerce became omnipresent, and collectors tended to operate in a cash economy. Learned scholars of natural and antiquarian knowledge sent not only letters to each other, but also books, ancient coins, plant seeds, plaster casts of Roman sculpture, seashells, anatomical specimens, and rare minerals. These exchanges could happen in barter, against cash or as gifts. But, as this article suggests, gifts could have an implicitly understood price, too. If the dominant discourse on curiosities was all about the money, how could you avoid thinking about the price of a specimen, even if you offered it freely to your correspondent?

Travelling scholars saw financial value was glued to curiosities, sometimes literally, as manifested by a price tag in a Parisian shop, and sometimes in the eye of the beholder, as exemplified by Allard de la Court's drawing of the Prussian crown jewels. Money served as an imperfect, messy, approximate, but nonetheless useful indicator of real value when it came to comparing and evaluating *naturalia* and *artificialia*, and it could also indicate purchase price. As a result, in the circulation of curiosities, every member of the Republic of Letters was aware what price had been assigned to a particular specimen, instrument or book. This need not have been done overtly. As Pierre Bourdieu has shown in his study of Kabyle society, gift exchange can oftentimes serve as a cash economy under disguise.[93] In their exchanges, early modern scholars might not have specified how much they expected in return for a specimen they sent. Yet they could keep tabs in private, and then calculate in financial terms what counter-gift was appropriate from their correspondents. Reciprocity worked with unspoken, but none the less clearly understood financial values.

Thanks to the peculiarities of early modern finance, however, some aspects of gift exchange survived even under the cash economy of curiosity culture. Anthropologists often argue that, while gift systems promote social cohesion, cash economies alienate humans. Impersonal contracts replace real social relations of friendship and hatred.[94] And, arguably, the monetarization of early modern science allowed scientific practitioners to offer their collections to buyers at a distance, without having to develop complex social ties with their customers first. The patronage system of earlier periods was replaced by an open market. Through the pages of Jencquel's *Museographia,* Albertus Seba could reach out to readers across Europe, and tell them that they could get his cabinet for 25 000 guilders.[95]

Yet the fuzzy metrics of money helped the survival of social relations in the age of a cash economy, I argue. Animosity, friendship and other forms of sociability could prosper and guide transactions in curiosity exchanges. Financial value was a messy concept in everyday life, with commodity prices and exchange rates fluctuating constantly. Everyone knew how much a curiosity could be worth in rough terms, but

[92] Dániel Margócsy, '"Refer to folio and number": Encyclopedias, the Exchange of Curiosities, and Practices of Identification before Linnaeus', *Journal of the History of Ideas*, 71 (2010), 63–89.

[93] For Bourdieu's classic reformulation of Mauss, see Pierre Bourdieu, *Outline of a Theory of Practice* (Cambridge, 1977). See also Ilana F. Silber, 'Bourdieu's Gift to Gift Theory: An Unacknowledged Trajectory', *Sociological Theory* 27 (2009), 173–90.

[94] David Graeber, *Toward an Anthropological Theory of Value: The False Coin of Our Own Dreams* (New York, 2001).

[95] For more detail, see Dániel Margócsy, 'Advertising Cadavers in the Republic of Letters: Anatomical Publications in the Early Modern Netherlands', *British Journal for the History of Science* 42 (2009), 187–210.

not precisely. The flexibility and the uncertainty of money therefore created a space for negotiation between buyer and seller. The omnipresent practice of haggling allowed for an expression of good and bad intentions, balancing the building of social ties with the preservation of economizing self-interest. When Zacharias Conrad von Uffenbach visited the widow of the renowned botanist Paul Hermann in Leiden, for example, he took pity on her, dressed in worn clothes and struck by poverty. As Uffenbach recounted, she had once owned a beautiful herbarium, worth 3000 guilders, but once the collection's condition deteriorated, she was able to sell it only for 300 guilders to Frederick I of Prussia, with his expensive crown jewels. 'A price of shame!', Uffenbach commiserated, expressing sympathy in monetary terms.[96] She should have received a fairer deal. Not that he himself was much better than the miserly King. He decided to make an offer for a beautiful Indian puppy in her collection, 'hoping to get it cheaply because she had hardly any bread', but the widow refused, finding the price too low.[97] Clearly, the German tourist hoped to exploit his social relationship with the widow to obtain a price that did not truly reflect the intrinsic value of the dog. And, as we have seen, Uffenbach used the same tactics when selling his own collection of manuscripts. He named an ideal price of 20 000 écus, and a friendly minimum price of 12 000 écus, only for the Prince of Savoy. The difference of 8000 écus gave ample room to the Prince to express either his generosity or the tight control of his purse. By offering to pay more or less money than what you thought the right price was, you could express sympathy or take advantage of the seller. And you did not need to make a gift to make a friend, it was enough if you offered it for cheap. Financial transactions were modulated by the injection of social value.

Re-interpreting the exchange systems of the early modern Republic of Letters has been only one aim of this article. More importantly, it has also revealed how the world of commerce affected the mindset of travellers when it came to appreciating curiosities. Scholarly tourists received a constant bombardment of reminders about the importance of money during their voyages across the European continent. They received instructions before departure, both in the form of personal letters from their families, and in the shape of printed travel and museum guides. On the road, they shared their coaches with merchants, they kept accounts of expenses, and they exchanged foreign currency with bankers. They purchased museum catalogues, auction catalogues and sales catalogues. They participated in guided tours in museums and libraries, where the guide told them anecdotes about the price of this and that object. Wherever they turned, the instruction was clear: watch thy curiosities, and watch thy purse. The cumulative effect of these influences was clear. These travellers learned to see *naturalia*, artworks and books through the lens of money. Easily quantifiable, yet still malleable and imprecise, price offered a convenient substitute for other metrics of value. You stared at an object, and saw a thousand guilders in its place.

[96] 'Die Wittwe hat diese Collection anfangs vor drey tausend Gulden gehalten, nachdem sie aber vieles verderben lassen, hat sie alles zusammen an den König in Preussen, vor drey hundert Gulden, welches ein Schande-Geld ist, verkaufft.' Z. C. von Uffenbach, III, 418–9.

[97] 'Ich hätte selbigen gern gekaufft, ich hoffte auch, weil sie das Brod kaum hat, ihn wohlfeil zu bekommen.' Z. C. von Uffenbach, III, 419.

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