

Metacollecting or the process of collecting collections, with examples from The Tricottet Collection

Métacollectionner ou collectionner les collections, avec exemples pris de la collection Tricottet

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Summary: Despite the broad literature on the history of collecting, the material used as basis for those studies remains scattered all over the world and usually hidden from sight. Specimens that exemplify the collecting process, although often recognized for their historical importance, are kept out of context, in scientific, historical or art collections. This article formalizes the concept of metacollecting, i.e. the process of collecting collections. Examples taken from The Tricottet Collection show how the collection-object, with its biography and collection attributes, is the 'guarantor' of the history of collecting. To prove that the collection-object transcends the specimen intrinsic value, all possible types of collectibles - natural history specimens, cultural objects, technological devices - are treated the same way. This essay suggests that making the metacollection the central stage for the study of the history of collecting will fill a gap in postmodern museology.

Résumé : Malgré la vaste littérature sur l'histoire des collections, le matériel utilisé pour ces études reste dispersé à travers le monde et généralement caché à la vue. Les spécimens qui illustrent le processus de collection, bien que souvent reconnus pour leur importance historique, sont conservés hors contexte, dans des collections scientifiques, d'histoire ou d'art. Cet article formalise le concept de métacollection, c.-à-d. le processus de collectionner les collections. Les exemples tirés de la collection Tricottet montrent comment l'objet-collection, avec sa biographie et ses attributs de collection, est le « garant » de l'histoire des collections. Pour prouver que l'objet-collection transcende la valeur intrinsèque du spécimen, tous types possibles d'objets de collection - spécimens d'histoire naturelle, objets culturels, appareils technologiques - sont traités de la même manière. Cet essai suggère que faire de la métacollection le lieu central de l'étude de l'histoire des collections comblera un vide de la muséologie postmoderne.

Introduction

History of collecting, as a part of material culture, teaches us about the history of science, art, society, and even politics (Alberti, 2008). The collecting process is investigated in social psychology (Belk, 1995; McIntosh and Schmeichel, 2004) and in economics (Burton & Jacobsen, 1999). The literature on the history of different collection themes abounds: e.g. Dance

(1986) on shells, Wilson (1994) on minerals, McCall et al. (2006) on meteorites, Basbanes (1995) on books, Waring & Waring (1980) on Teddy Bears, Robertson (2004) on dolls, etc., to only cite a few. Scholarly work about the collecting process that transcends boundaries between private and institutional collections (psychology versus museology), and between collection topics, is best epitomized by "Interpreting Objects and Collections" (Pearce,

1. Note that little research has been done on this topic prior to the 1980s.

2. Exceptions exist. Audibert (2018), when presenting a Black-headed Gull from the Claudius Côte (1881-1956) collection, describes the rationale behind the collecting as well as the collecting process.

1994) and by, for instance, the *Journal of the History of Collections* founded in 1989¹. The collected objects can take a central role in the literature, such as a bone (Dahlbom, 2007; 2009) or an officer's jacket (Pearce, 1994). Yet, the reinterpretation of the object often relates to the object itself, not to the collecting process (e.g. meaning of the bone in terms of historical zoological taxonomy, meaning of the officer's jacket in terms of war memory). The collection attribute of the object remains in most cases a means to an end, not a means to itself².

The links, resemblances and differences between different collection topics, as well as the milestones in the history of collecting are rarely thoroughly explored. The study of both naturalia and artificialia collectibles often remains limited to the Wunderkammer period (e.g. Impsey & Macgregor, 1985; Schulz, 1990) and scholarly works considering the explosion of collection specializations related to mass consumption remain rare (see Pearce & Martin (2002) for an eclectic list of collectibles). A lot of questions therefore remain. How have collecting trends evolved through time (innovations, collecting crazes, etc.)? Who are the most notorious collectors? How does a new collection theme emerge? What are the differences in cataloguing, storage, display, marketing and dealing of different types of collectibles? How does a collectible story survive through generations, conflicts and the other ravages of Time?

Hints are disseminated throughout the literature, as are the historic collectibles that hold such tangible information, scattered across museums and other archives. Objects studied in the history of collecting originate from various collections whose primary aim is of scientific, historical, artistic, or educational nature. The Center for the History of Collecting and the Society for the History of Collecting are, despite their generic titles, only concerned with the history of art collecting. There is so far, to the best of the author's knowledge, no specific collection dedicated to the general history of collecting. Metacollecting, therefore, remains a secondary, derivative, endeavour.

This article presents The Tricottet Collection, owned and curated by the author, which is possibly - although relatively modest in size - the first explicit metacollection or collection of collections. Due to the novelty of the process of metacollecting, the present essay should be

seen as a pictorial catalogue of objects and documents that exemplify the richness of this new form of museology. No attempt is made to provide a synoptic history of collecting nor a comprehensive overview of collection themes, which would be the long-term endeavour of the metacollection.

Section 1 will describe the concept of collection-object as well as its related Socio-Historical Collection Index (Mignan, 2016), which will be used throughout the article as a proxy to both the chain-of-custody length and the level of documentation associated with each collectible. Section 2 will present selected collection-objects from The Tricottet Collection and discuss what we may learn from such objects. Examples will include: fossils, meteorites, pottery, merchandise, minerals, shells, calculating devices, and video games. Section 3 will present documents, such as correspondence letters and manuscripts, also from The Tricottet Collection, which are preserved for the information they contain about the collecting process. Examples will include: tektite field collecting, the making of a comic book collection pedigree, the collecting of computer parts, collecting habits in 19th century France, the pricing of meteorites, and the mise-en-scène of natural history specimens in photographs. The importance of metacollecting in the context of museology will finally be discussed in some concluding remarks.

1. The concept of metacollecting

1.1. The collection-object, a shift in object meaning

Metacollecting refers to the act of collecting collections in which the term 'collection-object', introduced by Mignan (2016), represents an abstract, high-level object defined by its attributes of being from collections built or arranged by specific collectors or curators. In practice, it is defined by the information associated with the concrete, lower-level objects (or specimens) the collection contains. Those attributes are related to the way the specimens are collected, catalogued, stored and displayed. Metacollecting thus yields a focus shift from objects of intrinsic value to objects of extrinsic socio-historical value associated to the collecting process. An example is given in Fig. 1.

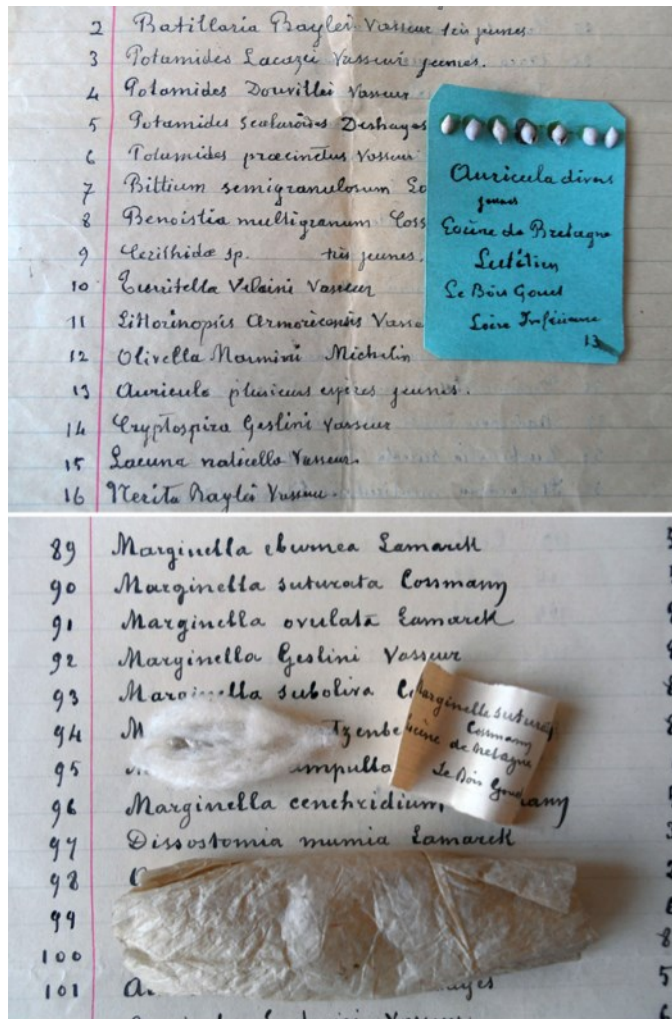


Fig. 1. Minute fossil shells from the Lutetian of Bois Gouët, France - A paleontological collection would consider the fossil specimens themselves. A metacollection considers the collection-object, which is the Jean Miquel (1859-1940) collection with all its attributes. His collecting process is here represented by the specimens being numbered and catalogued. Some specimens are also glued on a card; others are carefully wrapped in cotton with the label rolled around, then wrapped again in wrapping tissue. Miquel's approach gives us an insight into how minute fossil shell specimens were stored at the turn of the 20th century (top: SHCI = 1 (Miquel) +1 (card) +1 (no. 13) +1 (unpublished manuscript catalogue) = 4; bottom: SHCI = 1 (Miquel) +1 (label) +2 (nos. 90, 5) +2 (unpublished manuscript catalogue; original wrap storage) = 6 – For more details about the Miquel collection, see Miquel, 1932; Alvaro & Vizcaino, 2002).

The collection-object is compatible with object biography, promoted by Alberti (2005) to reconstruct histories of science by embedding the study of scientific practice in material culture (see also Kopytoff, 1986; Pearce, 1994 among others). But in contrast to Alberti (2005) who was concerned with the history of scientist-curators, the collection-object relates also to the psychological, artistic and economic aspects of collecting, both private and institutional. It is not only the chain-of-custody that is of interest here but also the associated collection attributes.

The Tricottet Collection is a metacollection, which purpose is not to find the most scientifically important or most aesthetic objects but the most important collection-objects. The main reason to explicitly 'metacollect' is to create a proper repository for the study of the history of collecting. Without such a metacollection, access to collection-objects remains hampered by the sheer size of conventional collections and the potential lack of interest by the collection curators, who may fail to see their extrinsic value. Many objects and other documents of interest might be discarded or

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3. Meteorites are separated from minerals, as meteorite collecting has some specificity (the importance of trading) not seen in mineral collecting. Indeed, once a meteorite strewn field is depleted of its (fresh) specimens, acquisition of new specimens for a systematic collection works solely via purchase and trade.

4. See also Schulz (1990)'s review on early collection topical classifications.

Naturalia		
Minerals	Meteorites ³	Organisms
Minerals, gems, rocks	Meteorites, tektites	Zoological & botanical specimens, fossils
Artificialia		
Artefacts	Devices	Entertainment
Cultural, historical	Mechanical, electronic	Artworks, books, play memorabilia (sports, toys, etc.)

Table 1. Informal classification ⁴ of collection topics used by The Tricottet Collection

simply lost in the process. Also, instead of focusing on one specific collection topic, all should be equally considered (Table 1). A metacollection is therefore composed of collection-objects (section 2) and its paraphernalia, such as collection catalogues, notices and other museological tracts, ephemera (e.g. invoices, newspaper articles, postcards), photographs of collection-objects, correspondence and other manuscripts about the collecting process (section 3).

1.2. The Socio-Historical Collection Index (SHCI)

To help evaluate the a priori socio-historical value of collection specimens from a collection-object perspective, Mignan (2016) proposed the following metric,

$$\text{SHCI} = N_{\text{prov}} + N_{\text{lab}} + N_{\text{num}} + N_{\text{misc}}$$

where N_{prov} is the number of verified provenances, N_{lab} is the number of labels, N_{num} is the number of inventory numbers (directly on the specimen, on labels, etc.), and N_{misc} is the number of additional miscellaneous collection attributes uniquely linked to the specimen (e.g. containers, photographs, drawings, letters, manuscripts, articles – except published collection catalogues which may yield unstable SHCIs – see Mignan, 2016). The term $N_{\text{lab}} + N_{\text{num}} + N_{\text{misc}}$ represents the attributes of the collection (s) and N_{prov} the number of collections represented in one specimen.

The aim of the SHCI is (1) to rapidly assess the potential socio-historical value of a specimen in disregard of its intrinsic value and (2) to emphasize the importance of collection attributes such as labels and inventory numbers in this assessment ⁵. A null SHCI means that the specimen is of unknown origin and has no collection attribute. A non-zero SHCI defines the biography of the specimen. A high SHCI (with

both $N_{\text{prov}} > 1$ and $N_{\text{lab}} + N_{\text{num}} + N_{\text{misc}} > 1$) is synonymous of a factual chain-of-custody. It should be emphasized that, as any other metric, the SHCI has a number of limitations, remains subjective and should only be seen as indicative. For more details about the SHCI, read Mignan (2016).

One goal of metacollecting, which is to identify and analyse from collection specimens the links between different individuals including museum curators, researchers, dealers and other collectors, is not new. The use of collections in historical research is well established with collections referred to as non-printed biographical sources, at the same level as non-published documents such as letters or diaries (Williams, 1990; Wyse Jackson, 1999). Prosopography, which is the collective study of people's lives through history, already uses collection specimens as input data, although still marginally (Allen, 1990; Groom et al., 2014; Mignan, 2016). In such analyses, use of multiple high-SHCI specimens would for instance help building prosopographical networks with fewer specimens.

A simple network built from two high-SHCI meteorite specimens is described in Figure 2 to illustrate the process (SHCI = 6 and 8). The meteorite biographies are represented by inventory numbers (e.g. Mignan & Reed, 2012), which in turn can be traced to a number of collection catalogues. In the present example, both specimens were part of the Field Natural History Museum (FNHM) collection of Chicago in 1916 (Farrington, 1916) and both originated from the Henry Augustus Ward ⁶ (1834-1906) collection. The Forest City specimen reached the FNHM in 1895 (Farrington, 1895) following the 1893 Columbian Exposition, which formed the nucleus of the FNHM ⁷ and where Ward's natural history material was showcased, including

5. This suggests that documentation should be preserved systematically, which is unfortunately not always the case (e.g. Wyse Jackson, 1999).

6. Ward, prominent natural history dealer, helped fuel the American Museum Movement (Kohlstadt, 1980; Barrow, 2000).

7. See also, in the previous issue of *Colligo*, Brinkman (2018) about zoology at the FNHM.

meteorites available for sale (Ward, 1892). Interestingly, this Forest City meteorite did not stop at the FNHM and continued its journey into two other collections, the American Meteorite Laboratory (no date available) and the Institute of Meteoritics, University of Mexico (Scott et al., 1990). The Pultusk specimen, although connected to the other stone, had a relatively different story. It was part of the so-called Ward-Coonley collection (Ward, 1901; 1904), a private collection, arguably the largest in the world, that Ward built obsessively in the last years of his life once he had reached financial stability after marrying the wealthy widow Lydia Avery Coonley (Kohlstedt, 1980; Barrow, 2000). The FNHM purchased the collection in 1912, a few years after Ward's premature death. At the time, the collection was on display at the American Museum of Natural History but the museum failed to exercise its option to purchase it (Ebel, 2006). The Pultusk stone was then deaccessioned from the FNHM years later as a scientific sample to researcher Robert D. Evans (Evans et al., 1939). A study of the FNHM meteorite collection catalogues teaches us also that

their lot of Pultusk stones (with the same Ward and FNHM inventory numbers) was reduced from 110 specimens in Farrington (1916) to 96 in Horback and Olsen (1965) to finally 54 specimens left in 1995 (unpublished label data). Those are thus good examples of 'mobile stones' (Chalk, 2012), moving from collection to collection, from museum object to scientific sample⁸. They prove the dynamics of the FNHM meteorite collection, as well as the plurality of links between Ward and the FNHM in its early years.

2. Selected collection-objects from The Tricottet Collection

The Tricottet Collection only represents an early attempt at metacollecting. It is not The Tricottet Collection's primary vocation to systematically metacollect, as it is a private collection with limited funds and space. It is thus so far composed of cherry-picked collection-objects that showcase important collecting trends in history. Specimens of high SHCI, as exemplified above (Fig. 2), concentrate many different collections in a limited number of specimens that

8. These specimens were finally reappropriated by The Tricottet Collection as collection-objects.

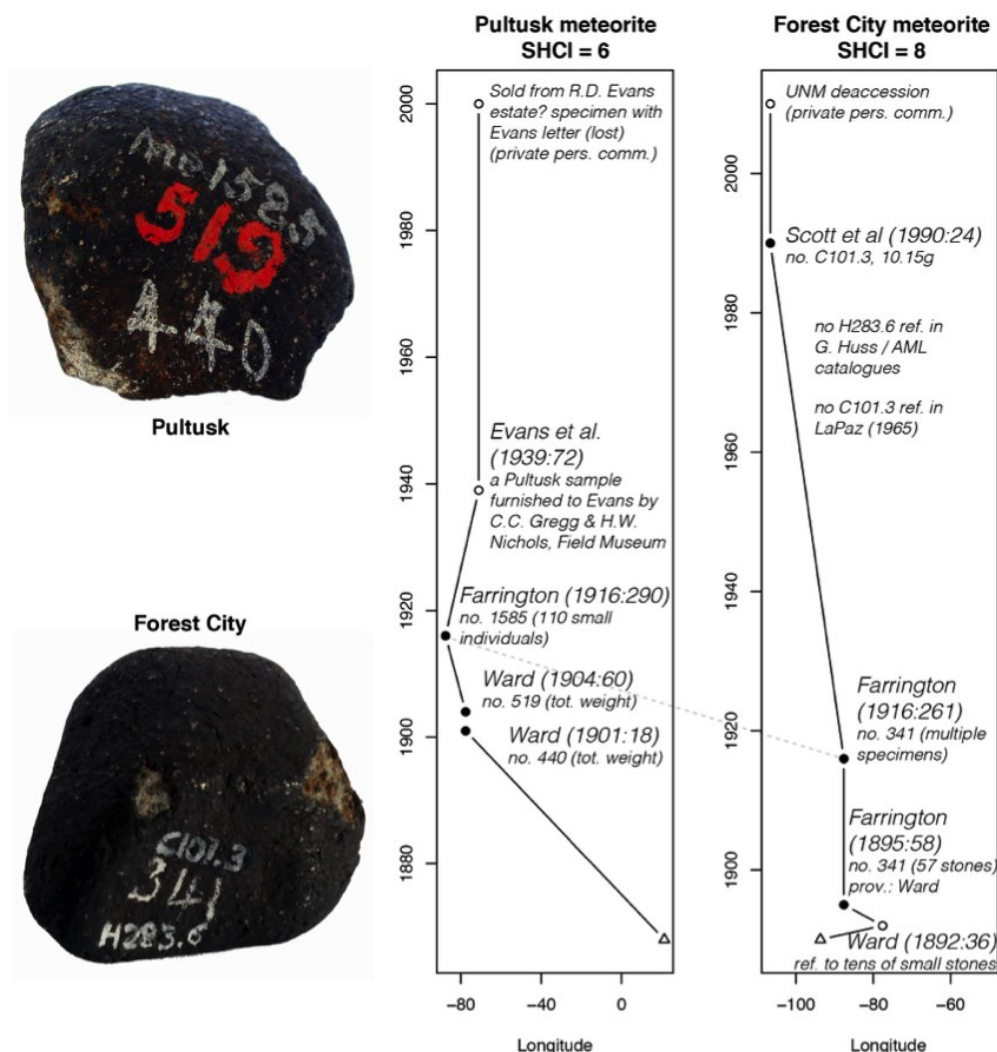


Fig. 2. Potential use of high-SHCI specimens in prosopographical studies (top: Pultusk meteorite, SHCI = 3 (H.A. Ward, FNHM, R.D. Evans) +0 +3 +0 = 6; bottom: Forest City meteorite, SHCI = 4 (H.A. Ward, FNHM, AML, UNM) +1 (UNM, not shown) +3 +0 = 8). The space-time diagrams shown on the right describe the meteorite biographies. The spatial migration is approximated by the longitude of the collection location. Triangles represent the starting point of the biography (place/date of fall; so-called provenience; Barker, 2012). Solid circles represent milestones in the biography with robust information available on the specimen's whereabouts (so-called provenance). Open circles represent valuable information but with no direct references to the specimen itself – Modified from Mignan (2016). Note the common node in 1916, hence leading to a network composed of two collection-object paths.

9. Best illustrated by Gersaint's 1736 shell collection catalogue. See section 2.3.

10. It sojourned there from 1888 until 1976, when it was returned to Nichols' grandson the Marquis Jean Pierre de Chambrun. The cup finally reached the antiques market in 1999.

11. Use of the cover arts does not compete with the purpose of the original artwork, namely Pac-Man merchandise marketing to the public. Cover arts are only used for scholarly purpose, i.e., to prove the existence of the Pac-Man collecting craze.

can be used for prosopography. However lower-SHCI specimens (with $N_{prov} \approx 1$) can also be of high interest, as illustrated by the following examples.

2.1. Collection-objects exemplifying collecting crazes

A fascinating aspect of the collecting process is how a type of object suddenly becomes fashionable as a collectible. Collecting crazes, also referred to as bubbles, mania, frenzies or fevers, can be considered as "*an allegory for collecting behaviour in general*" in this regard (Long & Schiffman, 1997). They give us insight into both rational (socio-economical) and irrational (emotional) aspects of the collecting process. Early examples include the European 'Conchylomanie' in the first half of the 18th century⁹ (Dance, 1986), the Victorian fern craze or 'Pteridomania' (Allen, 1969), and, at the turn of the 20th century Teddy Bears (Waring & Waring, 1980) and dolls, so-called 'dollatry' (Robertson, 2004). Modern examples include the 1983 Cabbage Patch Kids doll frenzy (Beisel, 1984; Robertson, 2004), the Swatch

Fever of 1990-1993 (Long & Schiffman, 1997), Beanie Babies in 1995-1998 (Morris & Martin, 2000), and Pokemon trading cards in 1999-2000, so-called 'Pokemania' (Katkar & Reiley, 2006). The two collection-objects pictured in Fig. 3 illustrate two other historic crazes, the Cincinnati Japanese Mania of the late 19th century (Trapp, 1987) and the Pac-Man fever of the early 1980s (Palicia, 2002).

Figure 3a shows a Japanese slip-decorated cup. Originally part of the Edward S. Morse (1838-1925) collection, it was then purchased by Maria Longworth Nichols (1849-1932) who loaned it to the Cincinnati Art Museum¹⁰. Morse is remembered for building one of the largest Japanese pottery collections of his time. While most of his collection is now shared between the Boston Museum of Fine Arts and other museums, several hundred pieces were directly purchased from his estate by Nichols, an avid collector and the founder of Rookwood Pottery Factory, Cincinnati, Ohio. As told by Trapp (1987), the transaction between Morse and Nichols happened in 1886, the year "*the Japanese mania in Cincinnati climaxed.*" It all started at



Fig. 3. Collection-objects illustrating two collecting crazes: (a) Japanese pottery with the following chain-of-custody: E.S. Morse, M. Longworth Nichols, Cincinnati Art Museum, Marquis J.P. de Chambrun (SHCI = $4+0+4$ ('No. 1' and 542 on glued stickers, red painted nos. 437 and 1231.88) $+0=8$) and illustrative of the Cincinnati Japanese Mania around 1886-1888; (b) Suite of Pac-Man merchandise from the Kennett Neily collection, all sealed and dated from 1982 to 1984 (see inset), reminders of the Pac-Man fever (SHCI = $1+1+0+0=2$; fair use¹¹).

the Centennial Exhibition of 1876 in Philadelphia after which "the American public quickly developed a near-maniac taste for things Japanese [...] In few American cities was the Japanese mania more avid than in Cincinnati [...] With the founding of the Rookwood pottery in 1880, the powerful influence of Japanese art upon Cincinnati's decorators was soon to become a matter of nationwide note and emulation." The present cup epitomizes this craze by its multiple connections to its main actors. **Figure 3b** shows a suite of sealed Pac-Man merchandise from the Kennett Neily collection, made of games (jigsaw puzzle, yo-yo, figurine, etc.) and everyday objects (pens, eraser, etc.). Dated between 1982 and 1984 by Neily, it documents the Pac-Man craze of the epoch. Pac-Man was the first video game character to be heavily merchandised (Wolf, 2007). Palicia (2002) lists hundreds of such Pac-Man products turned collectibles. It should be mentioned that it remains difficult to find collection-objects (i.e. documented collectibles) of such crazes, especially for recent manufactured objects (see section 2.4). Neily is best remembered for his collection of Silver Age comic books (see section 3.1) but he accumulated and recorded many other objects throughout the 1980s and 1990s, such as video games (section 2.4), toys, merchandise, etc., which could explain how this Pac-Man collectible suite came into existence.

2.2. Early meta-collections as time-capsules of the history of collecting

The importance of collectible documentation was emphasized above, and was expressed by the SHCI. Some collectors understand the importance of documentation to keep records, but not all, many discarding previous collection labels and replacing them by their own labels and inventory systems. This is not limited to private collectors, with some museum curators defacing previous inventory numbers or separating specimens from labels during deaccession. Therefore, at each change of ownership, past documentation becomes more likely to be lost¹². Bonnaffé (1867) already lamented that the genealogy of most antique artworks is unknown.

In this context of high entropy, old metacollections are highly valuable as they concentrate information on even older collections. Examples are rare and require early collectors to have understood the importance of chain-of-custody documentation. One example is the Arthur Russell (1878-1964) mineral metacollection. Russell was a famous British mineralogist and mineral collector, described as a 'collector of collections' on Wikipedia. He acquired a number of historic mineral collections and kept track of the provenance on his labels. The Russell labels shown in **Fig. 4** give the following provenances (including some chains-of-custody) for some Cornwall mineral speci-

12. With antique labels yielding a significantly higher price tag due to the combined effects of scarcity and cultural value, documentation is more likely to be saved by resellers; it is, alas, too late for most antique specimens.

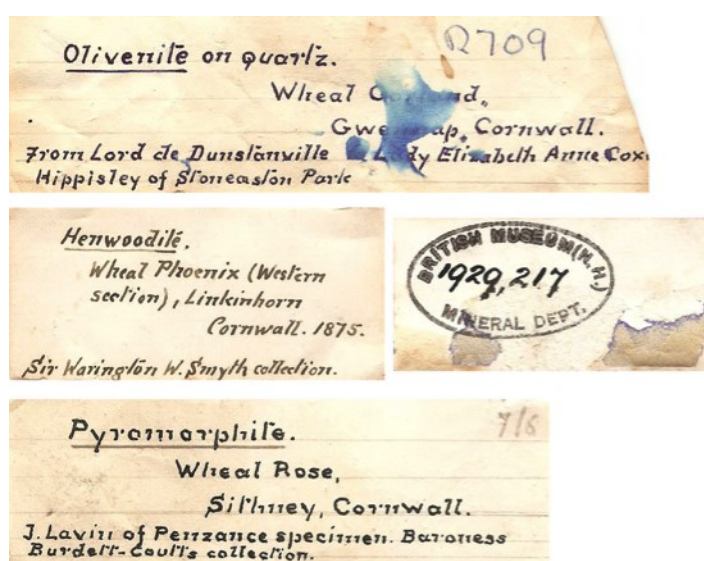


Fig. 4. Labels from the Russell mineral metacollection proving provenance from the following early British mineral collectors: 1st Baron de Dunstanville (1757-1835), Lady Elizabeth Coxe Hippisley (1760-1843), Sir Warrington Wilkinson Smyth (1817-1890), John Lavin (1796-1856), and Baroness Burdett-Coutts (1814-1906) (Olivine SHCI = 3+1+1+0 = 5; Henwoodite SHCI = 3+2+1 +1 (glass box display, not shown) = 7; Pyromorphite SHCI = 3+1+1+0 = 5).

mens: 1st Baron de Dunstanville (1757-1835) / Lady Elizabeth Coxe Hippisley (1760-1843), Sir Warrington Wilkinson Smyth (1817-1890) (including his own label with British Museum stamp on the back), and John Lavin (1796-1856) / Baroness Burdett-Coutts (1814-1906). Many other mineral collections from the 18th and 19th centuries were incorporated into the Russell collection, which is now part of the Natural History Museum of London (Kingsbury, 1966).

A second example is the René Langlassé (1854-1936) shell metacollection. Langlassé, a member of several savant French societies who helped classify the shells of a regional Natural History Society, meticulously recorded the provenance of his specimens, by writing the name of the collector, or gluing their original label, on the back of his own handwritten cardboard labels (Fig. 5). Names include: Hippolyte Crosse (1826-1898), Emile Eudel (1831-1892), Laurent Joseph Morlet, and Auguste Sallé. A number of labels have yet to be deciphered, requiring a comparison of the handwritings with other conchological archives (e.g. Breure, 2015; Breure & Audibert, 2017). Quite noticeable in this metacollection are the shell specimens from the Eudel ¹³ collection, which include the ship campaign during which they were found, here dated between 1860 and the 1880s (Fig. 5). Such historical metacollections can help build

social networks of collectors (e.g. Groom et al., 2014), as is also possible with high-SHCI collection-objects (section 2.2).

2.3. Collection catalogues as collection-objects themselves

Collection catalogues are evidently an important part of a metacollection library. They document the whereabouts of the collection-objects that they accompany at a given date (e.g. Fig. 2); some also represent milestones in the history of collecting. Two examples are shown in Figure 6: (a) the catalogue of Johannes Kentmann (1518-1574), which represents the first documented mineral collection in history (Kentmann, 1565; Wilson, 1994), published the same year as the oldest known museological tract by Samuel Quiccheberg about the collecting process (Schulz, 1990; Brizon, 2018); and (b) the 1736 shell sales catalogue of Edmé-François Gersaint (1694-1750), published for the first ever natural history auction in France, importing the Dutch style of purchasing (Gersaint, 1736; Dance, 1986; McClellan, 1996). The book is not only a sales catalogue but also an essay on shell collecting, including a list of the principle cabinets of shells in France and Holland. It also epitomizes the European 'Conchyliomanie' of the early 18th century (Dance, 1986).

The Kentmann catalogue was once part of the library of Franciscus Rassius Noëns, who iden-

13. Emile Eudel, master mariner, helped in the writing of the shell collecting section of the 1885 anthology "Collections et collectionneurs" authored by his brother Paul (see section 3.1).

Fig. 5. (top) Shells from the Eudel collection, part of the René Langlassé shell metacollection. Cardboard labels are from Langlassé; (bottom) Back of Langlassé cardboard labels with glued Eudel labels. The name Eudel is pencilled when the label is missing. Eudel's labels are also rich of information, providing the ship campaign and the date of find (SHCI up to 2+2 +1 (Eudel no.) +0 = 5 – generic vials not counted).



tified himself as a surgeon of Paris and who is also known to have been a discerning bibliophile of the Renaissance period (all of his books were signed and dated; **Fig. 6a**). Gersaint's copy was part of the library of Germain Louis Chauvelin (1685-1762), Marquis de Grosbois and French politician under Louis XV, as attested by his coat of arms, stamped on the catalogue (**Fig. 6b**). The catalogue is itself listed in the auction catalogue of the sale of Chauvelin's library (Anonymous, 1762, lot no. 1228). Kentmann's and Gersaint's catalogues, themselves collection-objects, are here put into a wider socio-historical context. The first shows that book collecting predates the earliest documented mineral collection (e.g. Basbanes, 1995). Chauvelin collected paintings, including from Watteau of whom Gersaint was a friend; Gersaint also promoted shell collecting as part of Rococo chic. This association emphasizes the links between art and shell collecting under Louis XV, as confirmed elsewhere (McClellan, 1996).



Fig. 6. Historically important collection catalogues as collection-objects themselves. (a) The earliest mineral collection catalogue published in 1565 from the library of "Franciscus Rassius Noëns chirurgus paxifrinus, 1566", notable book collector of the Renaissance (SHCI = 1+1+0+0 = 2); shown also is Kentmann's emblematic mineral cabinet (Kentmann, 1565); (b) Sales catalogue of the first ever natural history auction in France, also an essay on shell collecting and the symbol of conchylomania (Gersaint, 1736), and part of the library of Germain Louis Chauvelin, sold at auction in 1762 (see his coat of arms on the spine of the catalogue; SHCI = 1+1 (coat of arms) +0+0 = 2).

2.4. Challenges in metacollecting devices & play memorabilia

It should be mentioned that not all collecting themes are equally documented. Natural history collections are systematically labelled to provide at least the name and locality of the specimens. Artworks often have notes or stamps proving the chain-of-custody (on the back of a painting for instance). Books have bookplates. Collections of scientific and technological devices (e.g. calculators, phones) and of play memorabilia (e.g. movie posters, sport equipment, music instruments, toys), on the other hand, are seldom documented. The main reason is certainly that the maker, release date and other data are directly printed on those objects making labelling unnecessary.

The Tricottet Collection makes every effort to find those rare documented collections of devices and play memorabilia. Two examples are shown in **Fig. 7**, a circular slide rule from the Allan Bromley (1947-2002) collection and video games from the Kennett Neily collection. Bromley is recognized as one of the greatest collectors of mechanical calculators (Bromley, 1981; Sydney Morning Herald, 1999; Williams, 2000); Neily's video games, dated 1984-1988, may represent the earliest instance of video game collecting¹⁴. Neily, of White Mountain pedigree fame, was also a famous collector of comic books, as described in section 3.1.



Fig. 7. Rare instances of device and play collections which are documented: (a) Circular slide rule by Fowler & Co. from the Allan Bromley collection of calculating devices, with Bromley stickers (dated 1982) and inventory number (SHCI = 1+1+1+0 = 3); (b) Video games (Vectrex, Atari, Nintendo Game & Watch), complete-in-box, from the 1980s Kennett Neily collection, with penned dates of acquisition (SHCI = 1+1+0+0 = 2; fair use¹⁵).

14. Although it is contemporary of the Stephen M. Cabrinety Collection of Microcomputing (c. 1975-1995) which included some video games (Stanford University, 2001).

15. Use of the cover arts does not compete with the purpose of the original artwork, namely video game marketing to the public. Cover arts are only used for scholarly purpose, i.e., to prove the existence of documented video game collections.

16. For digital collecting in the 21st century, see Watkins et al. (2015).

17. For example, Kentmann (1565) was the first mineral collection catalogue (Fig. 6a) while the first ever auction solely dedicated to meteorites by a major auction house only happened in 2007 (Bonhams, 2007).

18. Bromley writes: "Apart from the relative scarcity of memorabilia dating back more than a decade or so, there are certain practical difficulties involved in collecting computers from before about 1970 [...] A more practical proposition for those determined to start yet another memorabilia/collecting trend is to collect parts of computers - printed circuit boards, for example, or a vital integrated circuit or transistor type."

19. The letter concludes as follows: "I hope also that you feel that your collection has been treated with respect by the Catalogue and the writing that Patrick Kochanek did in the Pedigree article, for better or worse your collection is now 'famous' and a part of comic book history".

3. Selected documents from The Tricottet Collection

The Tricottet Collection is complemented by an archive on the history of collecting, composed of correspondence letters, manuscripts, photographs, and ephemera, such as postcards and newspaper clippings.

3.1. Milestones in the history of collecting

A lot has been written on the history of art collecting and natural history collecting, but far less about the dynamics of collecting in the 20th century¹⁶ and how it compares with earlier collecting habits. With mass consumption, the number of potential collections has exploded. To the best of the author's knowledge, there is so far no publication that considers all of those aspects in an integrative manner. The work of Pearce & Martin (2002), for instance, is an anthology of collecting habits, not a scholarly work on the collecting process. In general, a systematic analysis of both collection and auction catalogues - to find new collection themes¹⁷, the most notorious collectors, the dynamics of fashions and fads, etc. - would help depict the entire history of collecting from the 16th to the 21st century. Correspondence letters and unpublished manuscripts can play a complementary role in this endeavour.

Three excerpts from documents part of The Tricottet Collection are given in **Figure 8** to illustrate this point: (a) John Saul's 1965 notebook about the first scientific expedition to the Ivoirite strewn field, Ivory Coast (Saul, 1969), where the in situ collecting of those elusive tektites is described for the first time. Saul provides a travel log, detailed information on how the specimens were obtained from the local population, and a catalogue of the finds; (b) Allan Bromley's draft article on private collecting of computers (Bromley, 1981). Bromley, previously mentioned as a famous collector of mechanical calculators (section 2.4), here explains how one could start a new collecting trend by collecting computer parts¹⁸; (c) a letter from Jerry Weist to Kennett Neily, dated 10 January 1992, about the making of the White Mountain Pedigree of comic books¹⁹. Jerry Weist pioneered the comic book collecting genre and was instrumental in the mounting of the first major comic book and comic art auction by Sotheby's in 1991. The White Mountain pedigree is considered the flagship of Silver Age Pedigree collections (1956-c. 1968) (Sotheby's, 1991). The three aforementioned examples clearly represent milestones in the history of collecting, and it is crucial - for their uniqueness - that they are preserved in a meta-collection and made accessible to the scholar.

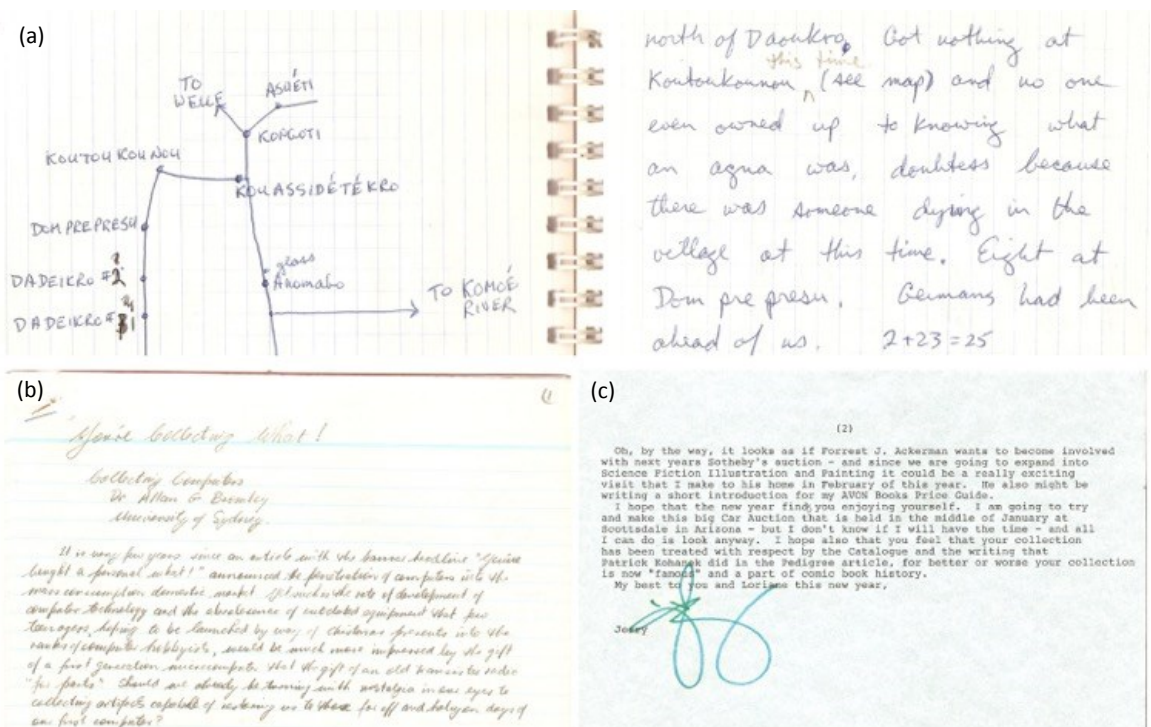


Fig. 8. Milestones in the history of collecting (second half of the 20th century) documented in manuscripts and correspondence letters: (a) John Saul's 1965 notebook describing the first systematic collecting of the rare Ivoirites in situ; (b) 1981 draft article by Allan Bromley titled "You're Collecting What! Collecting Computers", a very early discussion on this collection topic; (c) Letter from Jerry Weist to Kennett Neily, dated 10 January 1992, about the making of the White Mountain Pedigree of comic books.

An invaluable resource part of The Tricottet Collection, which is pictured in **Figure 9**, is the Paul Eudel correspondence archive used as input for his anthology “*Collections et collectionneurs*” (Eudel, 1885). The bound volume called “*Correspondance, Collections et collectionneurs, avant et après*” consists of over eighty letters and a 21-page manuscript on shell collecting by his brother Emile (**Fig. 5**). It includes letters from 19th century French collectors, such as Arthur Maury (1844-1907), one of the fathers of philately, some from Gustave Gouellain (1836-1897), famous collector of faïence, others from Arsène Vigeant (1844-1916), famous collector of fencing, etc. This will be the subject of a future article.

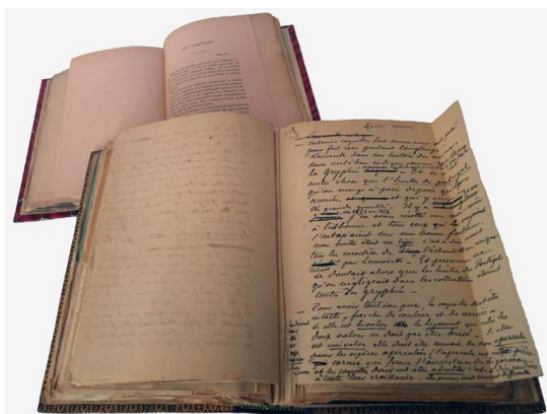
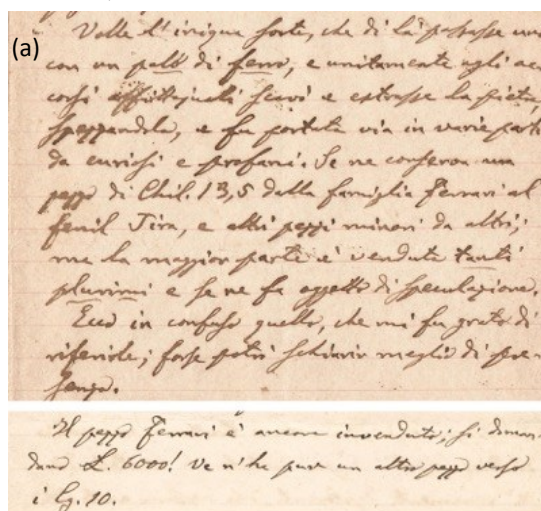


Fig. 9. The Paul Eudel correspondence archive used as input for his anthology “*Collections et collectionneurs*”²⁰ (Eudel, 1885), composed of tens of letters from famous French collectors (of faïence, stamps, sport memorabilia, toys, etc.) and a manuscript by Emile Eudel about shell collecting.

3.2. The economics of collecting

Economics is an important aspect of collecting (Burton & Jacobsen, 1999 - and references therein). Collecting represents a secondary market, based on offer and demand, which includes speculation and bubbles (section 2.1). Once again, auction catalogues provide a valuable source of information. Price outliers set new limits, as for example Colonel Bob Henderson's 1904 cinnamon Steiff 'Teddy Girl', which fetched 110,000 GBP in 1994²¹ (Christie's, 1994). Little has been written on the topic compared to the extensively studied art market. Other valuable sources of information are old price lists sent by dealers to prospective buyers (ephemera), and again correspondence letters. **Figure 10** shows excerpts from letters that document the high pricing of meteorites in the late 19th and early 20th centuries: (a) Two letters written in 1883 by priest Rabajoli, who describes the recent fall and re-

covery of the Alfianello meteorite in Italy. We learn that the meteorite was put into pieces with an iron pole and that the fragments were taken away by the villagers as objects of speculation (“*oggetto di speculazione*”). The asking price a few days later for a large piece was 6000 lire! (“*domandano Lire 6000!*”); (b) A 1920 letter from George Merrill, curator at the Smithsonian Institution, to dealer George English of the Ward's Natural Science Establishment, in which the scientist complains about the high price of meteorites. We read: “*I agree with you that a dollar a gram for the Cumberland Falls stone is a preposterous price. The same may be said regarding the majority of sales made by dealers. I would just as leave consider a dollar a ton a fair price if others will do the same.*” Those prices, which are associated to specific objects, dates and places, can be used to constrain price indices (Chanel et al., 1996), be compared to the pricing of other collectibles, etc.



(b) April 28, 1920.
Mr. Geo. L. English,
Ward's Nat. Sci. Estbl.,
Rochester, N. Y.
Dear Mr. English:
Yours of April 26th at hand. I agree with you that a dollar a gram for the Cumberland Falls stone is a preposterous price. The same may be said regarding the majority of sales made by dealers. I would just as leave consider a dollar a ton a fair price if others will do the same. So let's consider things on that basis and lose sight of the absolute money value altogether. What I want is to build up our collections and am looking particularly for kinds rather than for numbers. So please conduct your exchanges on that basis. As to the list of desiderata which I sent you, would state that I consider nothing as represented in our collections unless there are at least 10 grams of it. Occasionally I have taken a smaller piece and utilized it for cutting a thin section. Of course, that takes it out of the collection.
Fig. 10. Correspondence proving meteorite price speculation: (a) Excerpts from two letters from priest Rabajoli (dated 19 February and 7 March 1883) regarding the destruction and dispersion of the Alfianello meteorite and speculation on the price of the fragments; (b) Letter from George Merrill, curator at the Smithsonian Institution, to dealer George English of the Ward's Natural Science Establishment (dated 28 April 1920) complaining about the high price of meteorites.

20. Shown in background one of only two copies on pink paper.

21. To be compared to the lower prices previously realized by Teddy Bear collectibles (Waring & Waring, 1980).

3.3. Collecting process documented by images

Images of collectors with their findings in the field (e.g. Lepage et al., 2018), or of specimens in their cabinets or drawers (e.g. Ferry, 2010), depict the collecting process as it could never been done with words alone. Collection notices generally only contain vague statements on the appearance of the collections themselves, i.e., on the rules of visual arrangement (e.g. Schulz, 1990), and studies on collection displays remain rare (e.g. Ferry, 2010). It is from their catalogue engravings that we recall the famous cabinets of curiosities of the Renaissance (e.g. Impey & Macgregor, 1985; Wilson, 1994). Both engravings of collection *mises-en-scène*, as created by Gersaint in the 18th century (e.g. Gersaint, 1734), and photographs of modern museum displays have been copied in a number of publications. But except for those classical displays, most collections remain without a face. Engravings, paintings and photographs of collections that still exist are scattered in various archives and most remain unknown to the metacollection scholar.

The Tricottet Collection aims at finding such

rare images. **Figure 11** shows two original *mise-en-scènes* of natural history specimens, here highlighting the artistic part of the collection display. Whereas the first one - possibly the oldest surviving photograph of a mineral display (Wachtler, 2008) - was published (Friedrich, 1854-1855), the second one, of the Holbrook meteorite, is certainly unique. The mineral albumen photograph shows an artistic composition of orthoclase, quartz and asbestos, taken by photographer Johannes Schaefer (**Fig. 11a**). The meteorite photograph, likely from 1912, shows a reconstitution in studio of the Holbrook meteorite strewn field; the installation, made of meteorites of decreasing size and gravel, lies on top of a white sheet over a wooden floor. The cover image of a Foote catalogue (Foote, 1912) shows another, but different reconstruction of the Holbrook strewn field, suggesting that this photograph is from dealer Warren Foote (**Fig. 11b**). Other photographs part of The Tricottet Collection are as varied as the psychic museum display with its founder Sir Arthur Conan Doyle (a press photograph of 1929), or vintage home photographs of the Ackermansion, the most celebrated science fiction collection (e.g. *Guernsey's*, 1987).



Fig. 11. Artistically arranged *naturalia*: (a) Early albumen photograph of a mineral display, originally published in Friedrich (1854-1855) – described as the earliest mineral photograph by Wachtler (2008); (b) Reconstitution in studio of the Holbrook meteorite strewn field, believed to have been done or commissioned by meteorite dealer Warren Foote, the main investigator of this meteorite fall (Foote, 1912).

Conclusion

This article gave a rapid *tour d'horizon* of collection-objects and of paraphernalia on the collecting process held by The Tricottet Collection. Those examples illustrate how metacollecting can proceed: shift from the object itself to its collection identity, use of an index such as the SHCI to evaluate their a priori socio-historical value based on collection attributes (Mignan, 2016), and focus on specimens with high SHCI or which exemplify a specific aspect of collecting. The present article's aim was to emphasize the necessity to make the metacollection the central stage for the study of the history of collecting. There is therefore a gap to fill in postmodern museology: A systematic collection of objects serving as 'guarantors' (Latour, 1999) of the collecting process is still missing.

It was on purpose that the present paper mentioned so many collection themes (books, calculating devices, comic books, computers, fossils, merchandise, meteorites, minerals, pottery, shells, tektites, video games, etc.), to show that they are all, despite their differences, similar collection-objects. It of course does not denigrate the specimens themselves, which have their own value (e.g. Allmon, 1994; Winston, 2007), but suggests finding the right balance between the intrinsic and extrinsic value of every specimen, i.e. finding the right 'hierarchy of use' (see discussion in Chalk, 2012). For instance, if two specimens of equal scientific value are available and are needed for destructive testing, the curator should aim at saving the specimen with the highest SHCI.

What are the 'Mona Lisas' (Bell, 2011), the 'icons' (Pekarik, 2002) of metacollecting? Take for example the "Mandible of a Horse Grown in a Treeroot" that survived from Ole Worm's cabinet of curiosities to the present Zoological Museum of the University of Copenhagen (Dahlbom, 2009); although recognized for its historical value, its importance is lost out of the history-of-collecting context. Imagine having this collection-object displayed between a sculpture with chain-of-custody going back to Antiquity (Bonnaffé, 1867) and a 1477 chiselled piece of the Silver Table, believed to be the oldest surviving mineral specimen (Wilson, 1994). Have the fossils of Mary Anning, one of the greatest fossil collectors (Torrens, 1995), more value in a paleontological collection? or

in a metacollection, next to meteorites found by Harvey Nininger (Nininger, 1972), and seaweeds found by Margaret Gatty (1809-1873; Gatty, 1872), two other leading figures in their own respective fields? Imagine another cabinet full of the recent collectibles that fetched record prices, such as Colonel Henderson's Teddy Bear or an Amazing Spider-Man of White Mountain pedigree. With such a metacollection, a holistic approach to the history of collecting could finally emerge.

Acknowledgments

All the objects and documents pictured in this article are part of The Tricottet Collection. The name of the metacollection is in honour of my grandfather, Guy Tricottet, who showed me the way of the naturalist when I was just a kid, leading me to a life in the categorization and cataloguing of the world's contents.

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