

FIFTY-FOUR EARLY MINERAL COLLECTION CATALOGS

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istorians of science, and even of mineralogical science, sometimes tend to view the private collector as unimportant in the scheme of things, and concentrate instead on the scientific discoveries of professional scientists throughout history. However, the insightful historian cannot help recognizing the contribution that private collections have made. In 1892, the mineral dealer adda the same observation:

A. E. Foote made the same observation:

How often some pseudo-scientist says of a gentleman of taste and means who has satisfied his love for the beautiful with [mineral] works of absolute perfection..."Oh! He is a mere collector!" True scientific men appreciate the value of such collections; and even if [the scientists are] poor, they manage to have [such collections] at their command.

Science needs objects to study, and the development of mineral collections over the centuries makes a fascinating field for historical research, and for book collecting.

Although the preparation of personal mineral collection catalogs for publication remained fashionable over a long span of time, it peaked in the late 18^{th} century and has unfortunately almost died out today. Trying to collect these works, the majority of which are very rare, can be challenging indeed. We have documented the existence of over 340 such collection catalogs up to the early 19^{th} century, and just getting a *look* at many of them can be practically impossible -- to say nothing of actually having the opportunity to acquire them.

Unfortunately, we don't know of any institutional library with that specialization, although some of the great libraries have naturally acquired their share of collection catalogs along with everything else. When one consults the National Union Catalog and other library databases to see where rare mineral collection catalogs are preserved today, they are found to be scattered far and

wide, some in the most unlikely places, because no one has put much special emphasis on them as a distinct category worth pursuing.

Some collection catalogs also contain a bonus: illustrations. Catalogs of this kind fall into the general category of "illustrated works" and, in some cases, "color-plate books," which are collected more widely among non-mineralogical bibliophiles. This simply means that we have more competition for these works from people who know nothing of the mineralogical subject matter but who appreciate the artistic aspects. In addition, some catalogs of collections of broad scope are important to other fields of study as well, such as botany or conchology (seashells), further increasing the demand for them. And that competition, unfortunately, tends to drive up prices, often far beyond reach (as, for example, the catalog of Albert Seba, which is now in the quarter-million-dollar range).

With the foregoing as introduction, here are some notes on 54 collection catalogs that we've had a chance to study, presented more or less in chronological order of their dates of publication, from 1565 to 1886.

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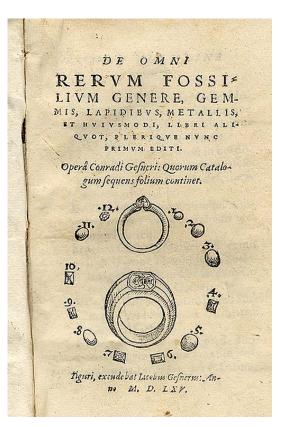
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Gesner's compendium (1565), containing Kentmann's catalog.



Title page of the compendium (1565)

[1] CATALOG OF JOHANNES KENTMANN (1518-1574)

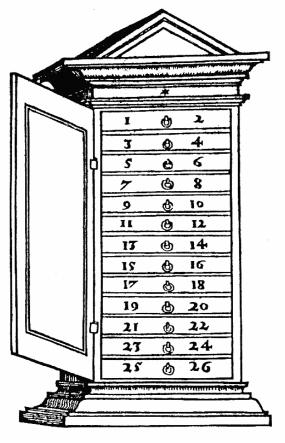
KENTMANN, J. (1565) Nomenclaturæ Rerum fossilium, quę in Misnia præcipuè, & in alijs quoque regionibus inueniuntur. Published in Zurich by Conrad Gesner's brother, J. Gesner.

Kentmann's mineral collection catalog, an inventory of the 1,608 mineral specimens in his collection, is the earliest known published catalog of a mineral collection. It was ahead of its time in providing accurate locality information for each piece. As would be expected, over 1,100 of the specimens originated from the region around Upper Saxony where Kentmann spent most of his life. Nevertheless, 472 specimens are from foreign lands, reflecting the vigor and great expense that went into building Kentmann's collection. Unfortunately, none of the specimens is illustrated, however, a major novelty of the work is a woodcut illustration of Kentmann's 13-drawer mineral cabinet, designed to segregate his specimens into the 26 major divisions established by Agricola, as modified by Gesner.

Kentmann's work is just one of eight short works on mineralogy bound together in an anthology published in 1565 by the famous naturalist Conrad Gesner (1516-1565). It is said that one of the other works in this anthology (all of them in Latin, so I haven't been able to confirm it) contains the first known reference to the *camera lucida* as a tool in scientific illustration, and this fact has attracted the attention of book collectors specializing in the history of optics and photography! As a result, the market value of this work has risen dramatically over the last 30 years.

The copy shown here is bound in original limp vellum, dyed iron-red, with book ties and traces of hand-lettering on the spine. The text is complete and the paper is remarkably clean and fresh, almost as if it were printed yesterday.

As a sidelight, it is always fascinating to read something that probably no one has been able to read in centuries. Early works such as Kentmann's, written in medieval Latin, were once universally accessible to the scholarly classes but today can be easily read by no one, including mineralogical aficionados. Only the trained Latin scholar today can work his way through such a text, and then often only with difficulty. And so, just for the fun of it, I have had Kentmann's introduction (dedicating his work to his publisher, Conrad Gesner) translated by a local Latin specialist, Robert Clashman; he and I worked together on it, with me supplying the necessary context and background to aid in the interpretation of It makes interesting difficult passages. reading even today, and Kentmann turns a nice phrase or two describing his pleasure and excitement in learning about minerals, while admiring Gesner for his professionalism and dedication as a scientist. Following is our translation, with clarifications added here and there in square brackets.



Kentmann's mineral cabinet (1565)



Johannes Kentmann



To the honored and learned Doctor and Philosopher, Conrad Gesner

[by] Johannes Kentmann of Dresden, Physician and Doctor of Medicine

A knowledge of Nature is a great thing to have, not only for its practical usefulness but also for its intrinsic worth. Therefore it is clear that such knowledge must lead human minds to a greater understanding of God himself, and provides a useful foundation upon which to discuss honest opinions about the wisdom of The Master Builder, who [being the creator of all] closely understands the forms of all things. It is also, with regard to the power by which He made these *fossilia* [=minerals, fossils, rocks] so beautiful, and ultimately so intrinsically good, and by which He conserves them all in the earth, that the practice of learning about Nature benefits the thoughtful person. However, we can forgive ourselves if we are unable to fully and sufficiently understand the

nature of these things [*fossilia*], or of the amazing causes resulting in such a variety of species and types, and the changes that can take place in them.

It is nevertheless plain that we should allow ourselves to rejoice in the fascinating and beautiful appearance of these things [*fossilia*] as a reflection of Heavenly power, just as the Barbarian [pagan warrior] admires his own shield, with happy shining eyes, and rejoices in the earthly royal power which it represents. Whoever remains unmoved by seeing these wonders of the earth fails to expand the vastness of his mind, just like the Cyclops who hides in his cave, never seeing the sky or respecting divine will.

My very famous man [Gesner], whom I join in admiration of the great variety of things in Nature: How often have my thoughts returned to her, and in doing so I come under her careful influence, so that I passionately complain about the condition of human life and how enormously shorter it is than [the life of] those things illuminated in this book, which are so much less vulnerable. Because a study of Nature is as food to the mind of an intelligently thoughtful person, the meagerness of my own learning in this field leaves me diminished in strength. If only I were truly allowed to live solely by studying, unencumbered by any other duties! For I see that you [Gesner] blaze with a wonderful need of investigating things in Nature, and I feel excited to the same eagerness more and more by your example. You have [in your previous publications] unrolled [like opening a scroll] that part of natural science concerning the ignoble animals of the land, sea and air with a clarity, readiness and richness of expression like none other before you. And even now you expend great effort in researching the other parts [Kingdoms of Nature], all together, omitting nothing, giving immediate and steady attention to the completion of the work as you have proposed. And, not satisfied simply to achieve the same level as your previous works would lead people to expect from you, you rise far above it.

Because of these guiding-light studies of yours, I am becoming more interested every day. You are distinguishing yourself in my esteem by furthering those goals that will benefit all future generations. Truly, as for myself, I struggle to appreciate your marvelous erudition, as well as your amazing physical fitness in spite of such tireless [scholarly] work, admiring you not only as a natural historian but as a spiritual leader because of your disclosure, through your illustrations, of so many things which formerly had remained obscure or unknown. Consequently I myself have been inspired to search out these specimens from underground-- this aspect of nature-- because it will be right and pleasing to later generations as you have concluded.

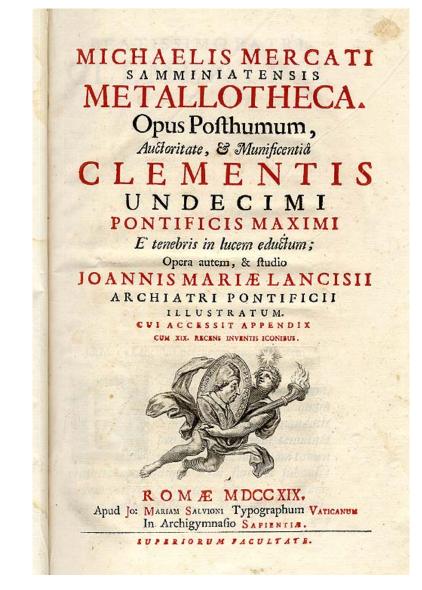
Not content to carry out your investigations into astronomy alone and into the near planetary bodies, you are also examining the deepest center of the earth, which is such an abundant supplier of mineralogical variety, decorated bewilderingly by the Founder of the Universe in a way that human learning can never fully comprehend. Nature herself leads the way to a careful inspection arriving at a recognition of the all-powerful goodness and great wisdom of the Master Builder. The intelligent person is not diminished by this notion but rather is elevated by contemplation of these heavenly creations.

Consequently, when I am absorbed in thought about minerals, time crumbles away swiftly, and my investigations advance with zeal. As a result I have learned about the things that can be found by digging, and of such things I have gathered, at much expense, a collection to which few others can compare. I pronounce my fond approval of your great efforts and, [like the other authors represented in this book who have also agreed to be published here] I surrender

to you my own work [in the form of this catalog to publish], given in honored regard, from me to my kind friend. I have listed all of the specimens of mine which I have assembled, things dug out from the earth, most of which I have acquired in various ways during the last six years. Therefore, when you have read it through, may it please you that I proclaim to whoever is pious, that I have held back nothing. For my heart is with you in this passionate endeavor, and I do not submit my work to you through any hope [of personal profit], or out of any lack of requested eagerness, attention, work, circumstances or things, or, in the end, out of [any personal pride in] all that I have acquired in abundant good fortune.

It is likely that such enthusiasm as mine will shine forth from all men who are inspired by your works on this subject, and in that way it will contribute on a continuing basis in the future. In truth, nothing is more petty of people than to decline giving honor where it is due. In the presence of one so fondly loved, jealous human nature can sometimes go astray. But I don't doubt that, as is natural for you, you are about to be wallowing in compliments, as I begin now by writing about the kindness in all things which you have manifested. I hope that after reading this vigorously accomplished and, I trust, worthy work of mine, you will kindly accept it and always keep me in your memory.

Be strong, well and happy, [Johannes Kentmann] Torgau, November 1565



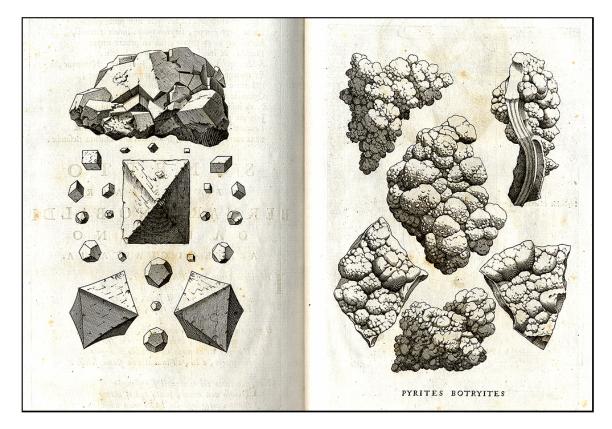


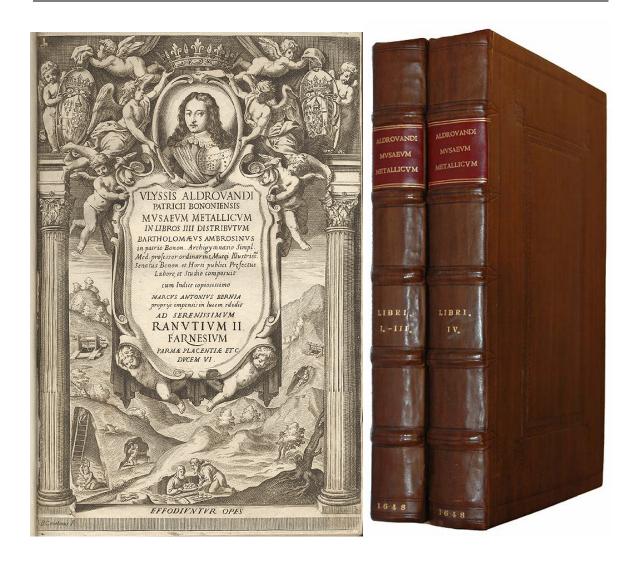
[2] CATALOG OF THE VATICAN (MICHELE MERCATI, 1541-1593)

MERCATI, M. (1717) Metallotheca [Vaticana]. Opus posthumum. Auctoritate et Munificentia Clementis Undecimi P. M. e tenebris on lucemeductum: Opera autem et studio Ioannis Lancisii Archiatri Pontificii illustratum. Published in Rome [Appendix published in 1719]

Mercati's catalog of the non-metallic minerals (he never got around to doing the metallic species) in the sumptuous mineral collection which he assembled on behalf of the Vatican is actually considerably older than its publication date would indicate. Michele Mercati (1541-1593) was an Italian physician and naturalist who had been appointed Prefect of the Vatican Botanical Gardens, and later Archiater (court physician) to Pope Clement VIII. He assembled a remarkably large and complete systematic mineral collection, among the first of its kind anywhere and the most important in Europe at that time, which he was permitted to install in a wing of the Pio-Clementine Museum at the Vatican.

Mercati died before completing his beautifully illustrated catalog of the collection, and his manuscript and engravings gathered dust in the Vatican Library for 124 years before being resurrected and published. Had the catalog, even though incomplete, been published shortly after his death in the 1590's, he would surely have been considered among the founders of mineralogy. But unfortunately it remained unknown for too long. His specimens, which had been his personal property until his death, were donated to the Vatican and within a few years had mostly been stolen by members of the curia. Thus not even his fine collection was able to influence the formative years of the science of mineralogy.





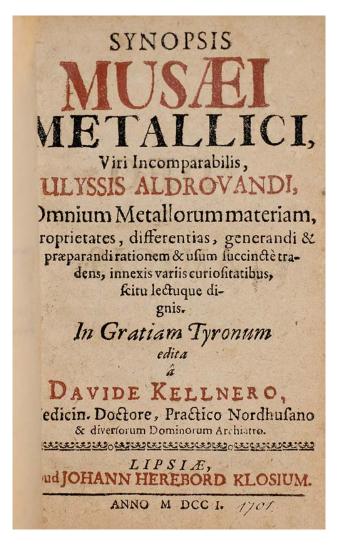
[3, 4] CATALOG OF ULISSE ALDROVANDI (1522-1605)

AMBROSINI, B. (1648) *Vlyssis Aldrovandi Patricii Bononiensis Mvsaeum Metallicum in Libros IIII...* Published in Bononia (the old name for Bologna) by Jo. Baptiste Ferroni.

KELLNER, D. (1701) Synopsis Musæi Metallici, viri incomparabilis, Ulyssis Aldrovandi, Omnium Metallorum materiam... Published in Leipzig by Johann Klosium.

Aldrovandi's massive collection catalog was edited and assembled by Bartolomeo Ambrosini (1587-1688), a pupil of Aldrovandi at the University of Bologna, who ultimately became a professor of botany and medicine there, as well as director of the city's botanical gardens. Based on a handwritten manuscript ("Geologica ovvero Fossilibus") left by Aldrovandi in the University Library, it was finally published at the request of the Bologna senate 43 years after Aldrovandi's death.

The catalog consists of a single volume divided into four books: [1] Metals and metallic minerals, [2] earths and clays, [3] *succi concreti* ("solidified juices") and [4] stones (other minerals, rocks and fossils). For each substance the localities, origins, varieties, synonyms, uses and medicinal properties are documented, with abundant references to classical and medieval authors. Perhaps the most outstanding feature of the book, for the connoisseur of mineralogical literature, is the assemblage of approximately 1,200 woodcut illustrations of various sizes scattered throughout the text.



A related work is David Kellner's little annotated (in German) overview of the Aldrovandi Museum, *Synopsis Musæi Metallici viri incomparabilis, Ulyssis Aldrovandi, omnium metallorum materiam,* published in 1701.





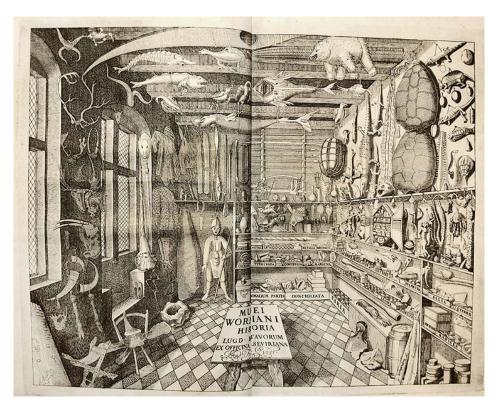
[5] CATALOG OF OLE WORM (1588-1654)

WORM, O. (1655) Museum Wormianum. Seu Historia Rerum Rariorum, tam Naturalium, quam Artificialium, tam Domsticarum, quam Exoticarum, quæ Hafniæ Danorum in ædibus Authoris servantur. Published in Lugduni Batavorum [=Leiden] by Johann Elsevier.

Ole Worm was a Danish physician, archeologist and Professor of Natural Philosophy and Medicine. He began building his *Wunderkammer* in 1620, and was particularly fond of minerals, to which he devoted the first four chapters of his collection catalog. After he established his personal museum in Copenhagen, it became famous throughout Europe and was a model for others. The catalog's double-page engraving of his museum room has virtually become the icon for the "cabinet of curiosities," the eclectic, universal collecting style that typified the philosophy of the times. And, like Ulisse Aldrovandi in Bologna and Bernard Palissy in Paris, Worm actually used his specimens for classroom teaching.

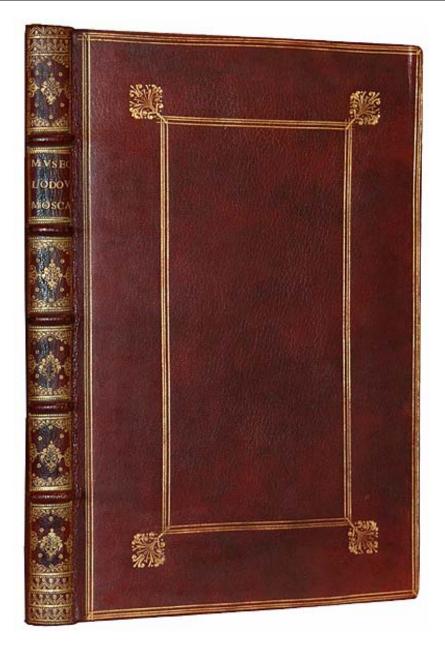
Ole Worm's hefty museum catalog was edited and published posthumously by his son, Willum Worm (1633-1704). It became instantly popular and for over a hundred years it was regarded as a standard textbook for the study of archeology. Even today Worm's text is a useful reference on scientific opinion regarding natural history and museology in the 17th century. More than 100 detailed woodcut engravings illustrate the specimens described (some are copied from earlier works but many are original). In his later years Worm served as court physician to King Frederic III, also an enthusiastic collector, and it may have been at the king's behest that Worm's catalog was published following his death. King Frederic also purchased Worm's entire museum from his heirs and incorporated it with his own Royal *Kunstkammer*, where some of Worm's specimens are still identifiable today.

The copy illustrated here is bound in contemporary green vellum, an uncommon type of binding.



The famous view of Ole Worm's collection room (1655)

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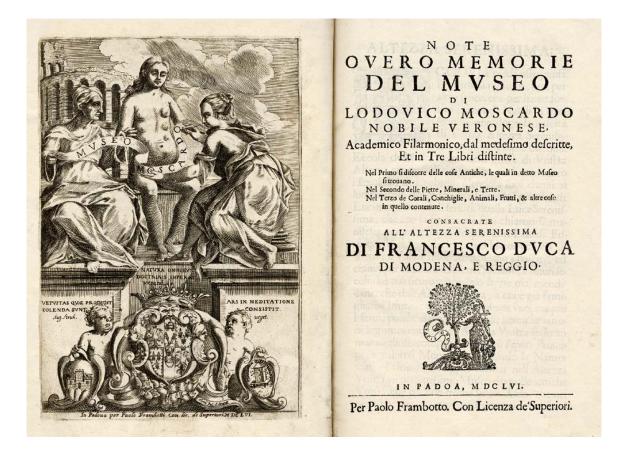


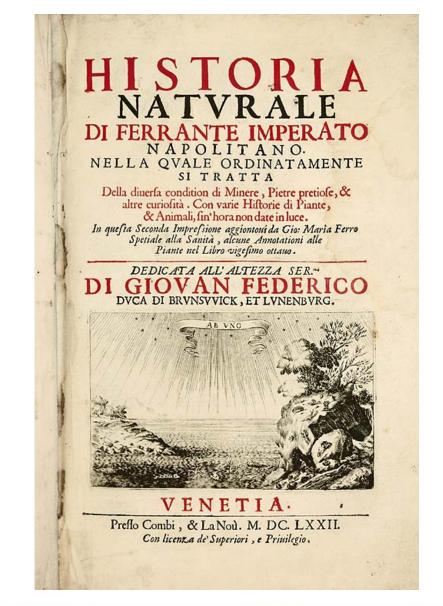
[6] CATALOG OF LODOVICO MOSCARDO (1611-1681)

MOSCARDO, L. L. (1656) Note overo memorie del Mvseo do Lodovico Moscardo nobile Veronese. Published in Padua by Paolo Frambotto.

Count Lodovico Moscardo's catalog is a richly illustrated description of a typical 17th-century Italian museum of the kind assembled as a hobby by wealthy collectors. Moscardo, a Veronese antiquary, spent some 30 years putting it together. It encompassed the whole natural world, not just minerals, and was greatly enriched by Moscardo's fortunate acquisition of the important collection of Francesco Calzolari of Verona.

The first section describes and illustrates Moscardo's antiquities: Roman statuary, portrait busts, coins, urns, stellae, perfume bottles, votive objects, seals, oil lamps, inscribed gems and jewelry, plus Egyptian sarcophagi, fragments of a giant's bones, and some Renaissance medals. The second section lists over 100 minerals, fossils and petrifactions. The final section covers corals, shells, preserved aquatic animals, fruits, musical instruments, paintings, drawings, a small collection of phallic amulets, and even a large assault catapult, among other fascinating items. The 114 engravings were executed by a local artist, Alberto Pasi.







[7] CATALOG OF FERRANTE IMPERATO (CA. 1550-1631)

IMPERATO, F. (1672) *Historia Naturale di Ferrante Imperato Napolitano*. Published in Venice by Combi and LaNou.

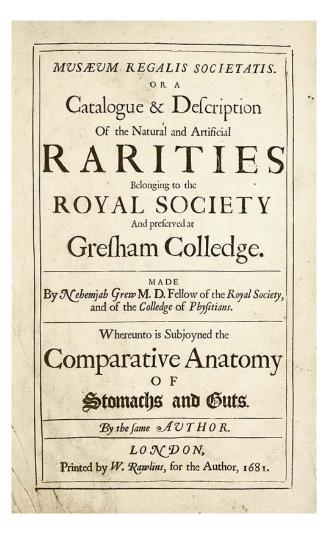
The copyillustrated here is the second edition of Imperato's highly interesting and splendidly illustrated publication covering all of natural history, including mineralogy, metallurgy and mining. Imperato was a pharmacist in Naples who probably began by collecting rare materials of pharmaceutical value to have in stock for his customers. (He founded the Naples Botanical Gardens for the same reason.) This small collection grew into a substantial and widely renowned private museum during his lifetime. Unlike most of his contemporaries who built collections, Imperato succeeded in having a book about his collection published, in 1599, which became essential reading for 17th-century writers on the subject of mineralogy. His beautiful engravings of three fine quartz crystal clusters, for example, were copied (without credit) by Anselmus DeBoodt in his famous *Gemmarum et lapidum historia* (1609) and also by Athanasius Kircher in his *Mundus subterraneus* (1665).



The famous double-page engraving depicting Imperato'sd collection room

Many of Imperato's rocks and minerals were self-collected, allowing him to supply commentary on the environments in which they were found. He also boldly denied the many mystical and metaphysical properties which had long been ascribed to various mineral substances by earlier writers, probably as a result of his own observations on the effects which his pharmaceutical preparations had on his patients.

His collections were arranged neatly in cabinets lining his collection room, making for an elegant display. The essence of the collection is captured in an exquisite double-page frontispiece engraving that shows his magnificent library and museum, with shelves and cabinets full of his many specimens of minerals, shells, botanical materials and a large collection of stuffed and preserved animals, many of them mounted on the ceiling.



[8] CATALOG OF THE ROYAL SOCIETY, LONDON

GREW, N. (1681) *Musæm Regalis Societatis, or a Catalog & Description of the Natural and Artificial Rarities belonging to the Royal Society and preserved at Gresham College.* Published by W. Rawlins for the author.

This early collection catalog of natural history specimens in the collection of the Royal Society is divided into four parts: [1] animals, [2] plants, [3] minerals and [4] man-made items relating to demonstration apparatuses for chemistry and physics, mechanics, coins and medicines. All sorts of curious objects are presented, including an Egyptian mummy, a human fetus preserved in a bottle, the leg bone of a dodo bird, more than 30 lodestones, butterflies, tiger claws, etc. etc. It gives a good view of the extent of mineralogical knowledge in England at the time.

The mineralogical portion of the catalog was reprinted by the Mineralogical Record in 1991, as part of the Antiquarian Reprint Series.



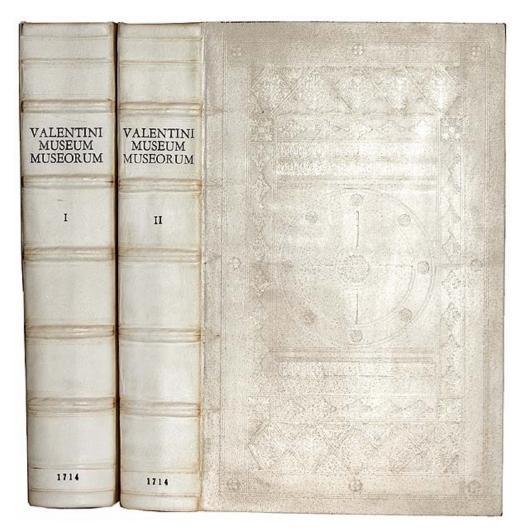
[9] Michael Bernhard Valentini's Museum of Museums

VALENTINI, M. B. (1714) Museum Museorum, oder Vollständige Schaü Bühne aller Materialien und Specereyen nebst deren Natürlichen Beschreibung/Election, Nutzen und Gebrauch... Published in Frankfurt am Main by Johann Zunners and Johann Jungen.

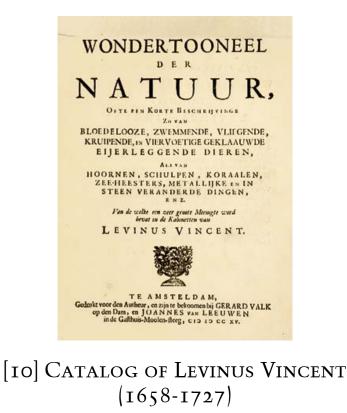
Though not strictly a collection catalog, Valentini's monumental compilation is really a collection of collections, a "museum of museums," listing and discussing many important natural history collections in different cities. He provides introductory text on the principal specialty areas for natural history collecting, and reprints Johann Daniel Major's 1674 tract on the philosophy and methodology of museum building.

The first volume, called a second edition but really just a reissue of the first edition of 1704, covers plants, animals, minerals and metals, their properties and uses. The second volume (first edition 1714) goes into more detail on stones, fossils, coins, tropical plants, shells, unicorns and

monstrosities. The third volume (also a first edition of 1714) deals with scientific experiments and experimental apparatus. An appendix catalogs 159 museums known to exist at that time.



With regard to the copy shown here, the interior is nearly pristine but the original binding consisted only of soiled and damaged paper wraps as issued by the publisher. It has been beautifully rebound by Skip Carpenter in two massive volumes, covered in white alum-tawed pigskin with elaborate blind-embossing typical of the finest bookbinding of the period. This binding cost over \$1000.



VINCENT, L. (1715) Wondertooneel der Natuur, ofte een Korte Beschrijvinge zo van Bloedelooze, Zwemmende, Vliegende, Kruip-ende, en Viervoetige Geklaauwde Eijerleggende Dieren...bevat in de Kabinetten van Levinus Vincent. Published in Amsterdam by Gerard Valk and Johannes van Leeuwen.

Levinus Vincent (1658-1727), a wealthy Dutch merchant and nanufacturer, formed a large natural history collection described in this finely illustrated catalog. The first part provides a general description of the collections, and the second part gives detailed descriptions of the specimens. All three Kingdoms of Nature are covered, including a considerable number of mineralogical specimens, some of them well-crystallized and others considered very rare.

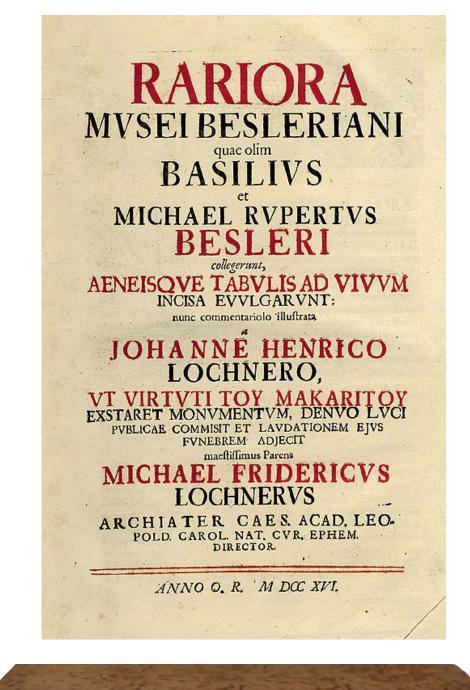
Vincent's collection, begun in 1674 by his brother-in-law, Anthony Breda, was one of the foremost *Wunderkammern* in Holland and was much admired by many distinguished visitors including Peter the Great and King Charles III of Spain. The catalog contains a spectacular view of the museum's spacious interior, drawn by the famous Dutch artist Romeyn de Hooghe and engraved by Andries Van Buysen (active 1704-1745). The double-page frontispiece shows the museum as it was set up in Haarlem in 1705. The remaining seven plates show individual cabinets and the contents of drawers, including one cabinet devoted to minerals, rocks and fossils.

Following Vincent's death the collection was sold to M.P. Bout, Deputy of the Province of Holland, and in 1779 it was dispersed at auction in the Hague. Many of the specimens were later illustrated in the works of Valentijn, Cramer, d'Argenville, Petiver and Knorr.

The copy illustrated here is volume two, published in 1715 (the first volume was published in 1706); 278 pages plus the folding frontispiece and seven numbered plates showing cabinets and open drawers. A later (1719), much shorter edition of 52 pages, with a title page in red and black, reprints and describes 11 plates from the original two volumes.



Levinus Vincent's spectacularly spacious collection room in Haarlem, Netherlands (1705).

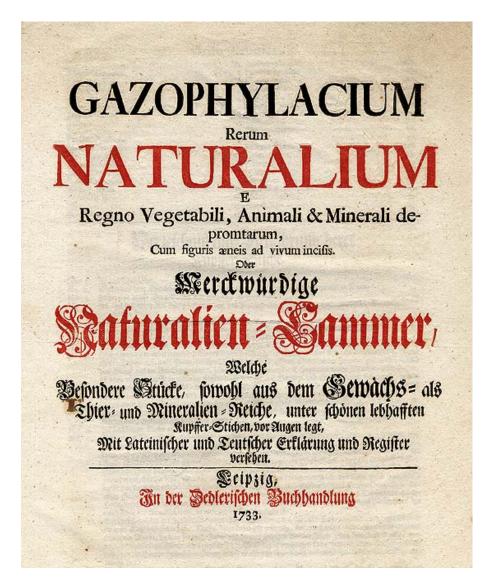




[11, 12] CATALOGS OF BASIL BESLER (1561-1629) AND MICHAEL RUPERT BESLER (1607-1661)

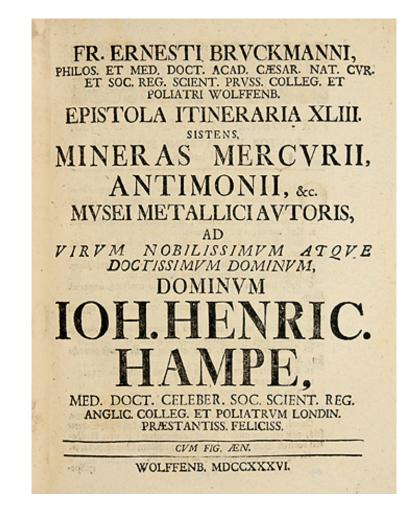
LOCHNER, M. F. (1716) Rariora Mvsei Besleriani quae olim Basilivs et Michael Rvpertvs Besleri collegerunt... Published probably in Leipzig.

BESLER, M. R. (1733) *Gazophylacium rerum naturalium, e Regno Vegitabili, Anamili et Minerali...* Published in Leipzig by Zedler.



Basil Besler and his nephew and heir, Michael Rupert Besler (a physician and pharmacist in Nuremberg), assembled one of the finest and earliest *Wunderkammern* in Germany. Like its Italian counterparts, it included objects from all three kingdoms of nature. Two catalogs were eventually issued. In 1642 Michael Besler prepared a folio-size catalog consisting of 34 engraved plates with captions, bestowing on the collection the wonderful term "gazophylacium" to mean a treasure-trove. Of particular appeal is the large engraved title page. The catalog was reissued in 1716 and 1733 (our copy).

A more elaborate catalog was assembled in 1716 by Johann Lochner, containing 40 smaller engravings of many more specimens of all kinds, along with a lengthy descriptive text of considerably higher scholarly quality than the bare-bones captions given in Besler's first catalog.

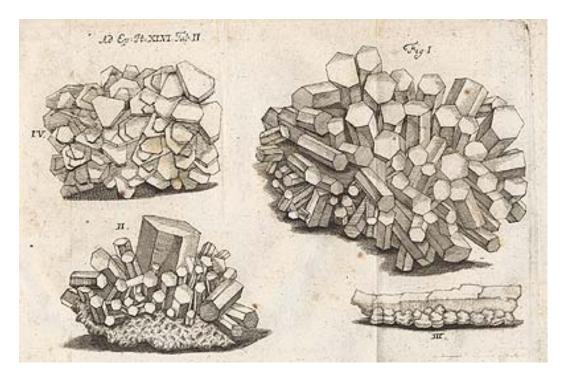


[13, 14] CATALOGS OF FRANZ ERNEST BRÜCKMANN (1697-1753) AND FRIEDRICH CHRISTIAN LESSER (1692-1754)

BRÜCKMANN, F. E. (1735) Museum Metallicum Autoris ad virum, nobilissum clarissimum atque doctissimum Dominum Johann. Henr. Hampe (and successive titles dedicated to other patrons).

Epistola Itineraria XXXIX. Epistola Itineraria XL. Epistola Itineraria XLI. Epistola Itineraria XLII. Epistola Itineraria XLIV. Epistola Itineraria XLV. Epistola Itineraria XLV. Epistola Itineraria XLVI. Epistola Itineraria XLVI. Gold, silver. (1735) Copper minerals. (1735) Iron minerals. (1735) Tin, Bismuth and Lead minerals. (1736) Pyrites, Mercury and Antimony minerals. (1736) Cobalt, Zinc and Magnesium minerals. (1735) Salts and sulfurous minerals. (1735) Talc, Spars, Calcite, Fluorite. (1736) Gypsum, Amianthus, etc. (1736)

Sciagraphium ("outline") (1737) Epistola Itineraria LVII. Sciagraphium ("outline") (1737) Epistola Itineraria LVVIII. Sciagraphium ("outline") (1737) Epistola Itineraria LIX. Sciagraphium ("outline," Artefactis) (1737) Epistola Itineraria LX Epistola Itineraria LXIV Fossils and dendrires (1737), (addressed to Sir Hans Sloane) Epistola Itineraria LXV Belemnites (1738) Metallic Minerals (1739) Epistola Itineraria LXXXI Epistola Itineraria LXXXII Metallic Minerals (1739) Metallic Minerals (1739) Epistola Itineraria LXXXIII Epistola Itineraria LXXXIV Metallic Minerals (1739)



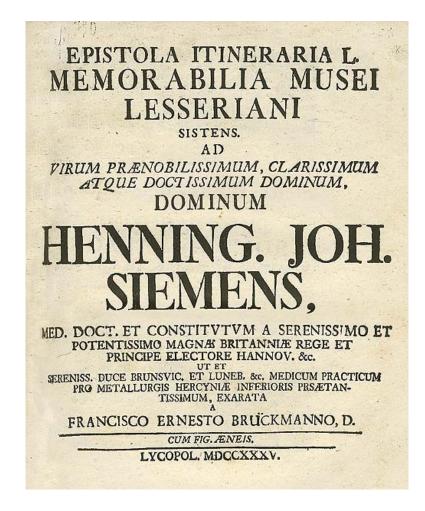
Calcite specimens in Brückmann's collection, from "Sylva Hercynia" (the Harz Forest)

Franz Ernest Brückmann (1697-1753) was a physician in Brunswick and Wolfenbüttel who published a number of works on mineralogical subjects, including catalogs detailing the mineral collections of important personages. He devoted 19 *epistola* or letters to the description of his personal collection of minerals, addressed to various patrons such as John Henry Hampe, a London physician and member of the Royal Society. His descriptions are particularly detailed for the time, distinguishing many subtle varieties and carefully recording their localities. Each letter *(epistola)* contains engravings depicting some specimens.

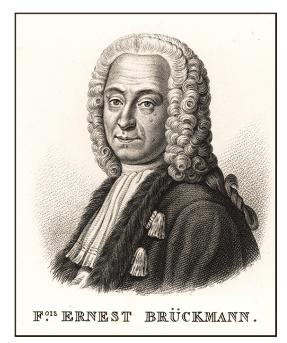
Bound with:

BRÜCKMANN, F. E. (1735) Memorabilia Musei Lesseriani sistens. Ad virum Prænobilissimum, Clarissimum atque Doctissimum Dominum, Dominum Henning. Joh. Siemens.

Epistola Itineraria LMemorabilia Musei Lesseriani (1735), 16 p. plus two engraved platesEpistola Itineraria LIMemorabilia Musei Lesseriani (1735), 12 p.



The bound Brückmann volume illustrated here also includes Brückmann's Epistola Itineraria L and LI catalogs for the Musei Lesseriani - the collection of Brückmann's close friend Friedrich Christian Lesser (1692-1754), Pastor of the Frauenberge Lutheran Church in Nordhausen, Prussia; it was written at the behest of the physician Henning Johannes Siemens. The collection contains minerals, zoological specimens and plants. These two epistola on the Musei Lesseriani are very rare—no copies are recorded in the National Union Catalog or the British Museum (Natural History) catalog. The two plates depict shells and a slab of rock showing manganese dendrites. Brückmann was, incidentally, the godfather of Lesser's last child, Maria.

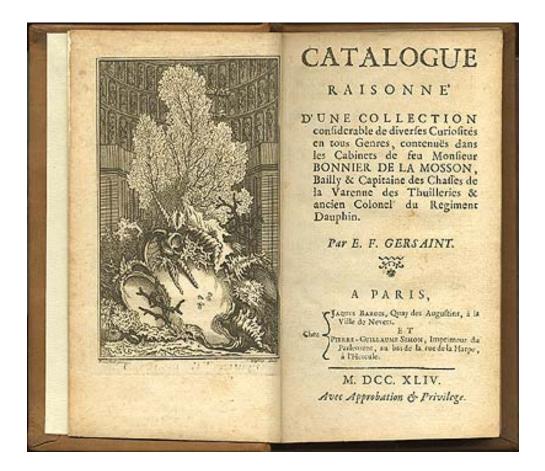




[15] CATALOG OF JOHANN CHRISTIAN KUNDMANN (1684-1751)

KUNDMANN, J. C. (1737) Rariora Naturæ & Artis item in Re Medica, oder Seltenheiten der Natur und Kunst des Kundmannischen Naturalien=Cabinets. Published in Breslau and Leipzig by Michael Hubert.

Kundmann's book is an account of the natural, artificial and medical wonders in his personal *Wunderkammer* of oddities and extraordinary objects gathered from many nations of the world. Included are minerals, gems, rocks, fossils and corals, as well as the typical plants and animals. Kundmann was a practicing physician in Breslau, Germany, and a medical official for that city; he was among the first researchers to collect comprehensive medical statistics relating to births and causes of death.. His catalog contains 16 full-page plates as well as numerous smaller engravings set within the text pages. A full-page plate is devoted to agates, and another to snowflake habits.



[16] CATALOG OF JOSEPH BONNIER DE LA MOSSON (1702-1744)

GERSAINT, E. F. (1744) Catalogue Raisonne d'une Collection considerable de diverses Curiositiés en tous Genres, contenuës dans le Cabinets de feu Monsier Bonnier de la Mosson. Published in Paris by Jaques Barois and Pierre-Guillaume Simon.

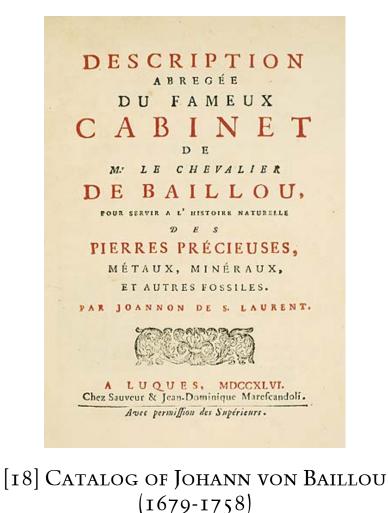
Bonnier de la Mosson was a wealthy French bailiff, Captain of the Hunt to the Varenne de Thuilleries family, Treasurer General of the state of Languedoc, and at one time a Colonel in the regiment of the Dauphin. His first catalog was published in Paris in 1737, seven years before his death, as a small duodecimo volume of 64 pages prepared by Edme François Gersaint (a prominent cataloger, collector and antiquary of the period). Immediately following Bonnier de la Mosson's death in 1744 Gersaint was commissioned by the family to prepare a second, enlarged catalog of 234 pages in octavo size to facilitate a sale. The collection contained specimens relating to mineralogy as well as anatomy, chemistry, pharmacy and drugs, various arts, animals, plants, shells and scientific instruments. The frontispiece engraving shows shells and corals in the foreground and three shelves of bottled, preserved anatomical and animal specimens in the background.



[17] CATALOG OF SIMON SCHYNVOET (1652-1727)

POSTHUMUS, V. (1744) Catalogus Musaei praestantissimi Fossilium omnis generis rarissimorum. Published in Amsterdam.

Simon Schynvoet was a Dutch naturalist, engraver and garden architect, and a friend of Everhard Rumph, another prominent collector. Seventeen years after his death, his son-in-law who inherited the collection, an Amsterdam preparator, merchant and broker named Vincent Posthumus, assembled a catalog of the minerals (primarily gold, silver, copper, precious stones, jaspers, lapis lazuli, fossils and other items), in parallel columns of Latin and Dutch, to aid in its sale. A peculiar fold-out plate following the title page depicts a headstone-like monument apparently made by the late collector, emblazoned with a saying in Dutch (something having to do with desiring what has been bred in the bowels of the earth). It is titled "The Mineral Cabinet."

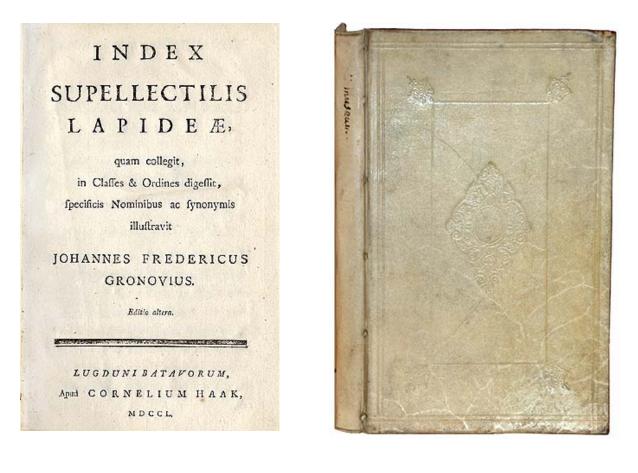


ST. LAURENT, J. de (1746) Description abregée de fameux Cabinet de Mr. le Chevalier de Baillou pour servir à l'histoire naturelle des pierres précieuses, metaux, mineraux et autres fossiles. Published in Luques (Lucca, Tuscany) by Jean-Dominique Marescandoli,

and dedicated to the Grand Duke of Tuscany. Baillou was a prominent Florentine naturalist who built an enormous natural history collection specializing in minerals, rocks and shells. At 30,000 specimens, it was among the largest in the world at that time. His small quarto catalog of just 156 pages could not hope to describe each specimen; instead it was more of a prospectus, discussing categories of specimens in general, probably with a view toward finding a royal buyer for the collection. If that was the purpose, it

was successful, because two years later the entire collection was purchased by the Austrian Emperor Franz Stephan I, who moved the collection to the imperial capital of Vienna and brought Baillou along as its curator. When the Emperor died in 1765, Empress Maria Theresa presented the collection to the state and opened it as a public museum. Today it is part of the collection of the Natural History Museum in Vienna.

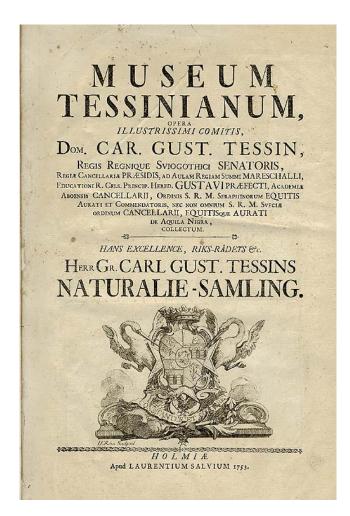
Baillou had originally planned to publish a complete folio-size catalog with handcolored plates, in several volumes, like that produced by Albert Seba. However, the Emperor was interested only in his personal, private enjoyment of the collection, and once he had purchased it from Baillou the idea of producing an expensive catalog was abandoned.



[19] CATALOG OF JOHANN FRIEDRICH GRONOV (1690-1760)

GRONOV, J. F. (1750) Index Supellectilis Lapideæ. Quam collegit, in Classes & Ordines digessit, specisicis Nominibus as synonymis illustravit. Editio Altera. Lugduni Batavorum, Apud Cornelium Haak. 112 pages.

This is the second edition of Gronov's orginal 1740 catalog; it was said to have been intended for use as an auction catalog. Johann Friedrich Gronov (1690-1760) was a physician in the Netherlands. His collection of "Lapideæ" included numerous American minerals, especially from Pennsylvania ("*Pensilvanicum*"), obtained from the American collector and naturalist John Bartram (1690-1777). He had many Swedish specimen obtained from Linnaeus, and German specimens from the well-known localities including the Harz Mountains. He also commissioned the Rev. William Borlase (1696-1772), a physician to the Rector of Ludgvan in Cornwall, to assemble a collection of minerals from Cornwall ("*Cornbiensis*") for him, and indeed many are represented in his catalog. Gronov regularly noted other collectors of his day as his sources for particular specimens, including Brückmann, Lawson, Amman, Heister, Henckel, Gaubii, Weitman, Collinson, Ghysbregts, Burmeister, Schwalbe, Holdernes, and Luycz-Massis. Gronov was familiar with the principal mineralogical authors and references, and cited them frequently when listing specimens. His collection may have been auctioned off or it may have been bequeathed to his son, Lorenz Theodor Gronov (?1730-1778), who also collected minerals and issued an auction catalog of his own, entitled *Museum Gronovianum*, in 1778.



[20] CATALOG OF CARL GUSTAV, COUNT TESSIN (1695-1770)

LINNÉ, C. von (1753) Museum Tessinianum, & opera illustrissimi comitis Dom. Car. Gust. Tessin...Collectum. Hans Excellence, Riks-Radets &c. Herr Gr. Carl Gust. Tessins Naturalie-Samling. Published in Stockholm by Laurent Salvi.

Count Tessin was an aristocratic Swedish diplomat and the patron and friend of Linnaeus (Carl von Linné, 1707-1778). He assembled a substantial natural history collection at his castle in Akerö, Sweden, and hired Linnaeus to prepare an illustrated catalog, which was published in 1753. Oddly enough, Linnaeus's name does not appear as author, but Count Tessin dedicates the work to him.

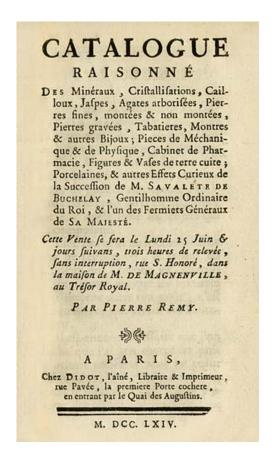
The text is in Latin and Swedish, and the 12 full-page uncolored plates at the end are entirely devoted to minerals and fossils. Plate I is particularly attractive, showing a large cluster of quartz ("mountain crystal") from India. Although the descriptive text is minimal in some cases, in others it is fairly detailed, and Linnaeus is meticulous about citing relevant references in Wallerius, in his own *Systema naturae*, and in other works. Only a few copies of the Tessin catalog were printed for private circulation to the Count's friends, so it remains a rare work.

(CATALOGVS NVMMORVM,
	· · VETERIS AEVI
-	ON VMENTOR VM, ac GEMMARVM,
	Cum aliis quibuídam
	Artis recentioris et Naturae OPERIBVS;
	Quae Vir Clariffimus
	RICHARDVS MEAD, M. D.
	Noper defunctus comparaverat.
3 11	to be add the there is a first of the set
1 1	Relliquias, veterumque vides monumenté virorum. Virg.
	LONDINI,
c	Catalogus proflat apud A. Laugford in area dicta Covent-Garden ; et S. Baker in York-Screet.
	[Pret. 1 s. 6 d.]

[21] CATALOG OF RICHARD MEAD (1673-1754)

MEAD, R. (1755) Mvsevm Meadianum, sive Catalogus Nvmmorvm, veteris aevi Monvmentorvm, ac Gemmarvm, cum aliis quibusdam Artis recentioris et Naturae Operibus; quae vir clarissimus Richardvs Mead, M. D., nuper defunctus comparaverat. Published in London by A. Langford and S. Baker.

Dr. Richard Mead was a wealthy London physician and collector of "objects of vertu." He had developed a taste for classical learning and antiquities during his education at Utrecht and Leyden, taking up collecting along with his fellow student Hermann Boerhaave, and ultimately obtaining his M.D. from the University of Padua in 1695. His spacious home in London became a museum of nature and art, always open to interested students and the curious public. Following his death his collection was auctioned off, the portion covered in the above catalog scheduled for auction on February 11-19, 1755 by A. Langford in Covent Garden. According to his published catalog, minerals and gems formed only a minor part of his collection, the bulk consisting of Greek, Roman and early British coins and medals (the only plate depicts coins), and of various antiquities. But there was much else not covered in that catalog, including his extensive library, which was disposed of at auction from early in 1754 to the summer of 1755 (Curtis Schuh, personal communication).

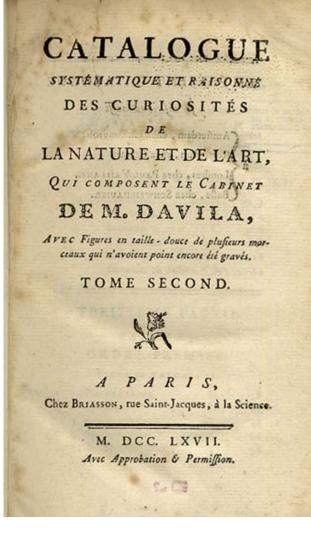


[22] CATALOG OF CHARLES SAVALETE DE BUCHELAY (D. BEFORE 1765)

REMY, P. (1764) Catalogue raisonné de minéraux, cristallisations, cailloux, jaspes, agates arborisées, pierres fines ... et autras effets curieux de la suc-cession de M. Savalete de Buchelay, gentilhomme ordinaire du roi et l'un des fermiers-généraux de Sa Majesté. Published in Paris by Didot on the Quai des Augustines.

Charles Savalete, a highly distinguished and decorated French knight, was made Lord of Buchelay and many neighboring parishes in 1753. He was one of the French "Farmers General" under Louis XV, and a "Gentleman Ordinary" to the King. His collection was almost exclusively minerals, some of which he had obtained from the sale of the "celebrated cabinet" of Parisian Abbot Jean Joly de Fleury (1700-1755) in 1754. Following Savalete's death around 1763, his collection catalog was prepared for auction by Pierre Remy. It lists 686 lots including minerals of gold, silver, copper, iron, tin, lead, bismuth, mercury, antimony and zinc, as well as quartz, agates, marbles, calcite, gypsum, pyrites, fossils, amber, sulfur, bitumens, volcanic rocks, diamonds and other precious stones, mechanical devices and models of machines and artillery pieces, a pharmaceutical collection and porcelain figures and vases. His lands were sold in 1767 to Philippe-Guillaume Tavernier de Boullongne.

Pierre Remy, the author of the catalog, was a well-known cataloger in Paris. From 1756 to 1764 he prepared at least 21 other auction catalogs for the estates of notables such as the Count de Vence, the Duke de Sully, Madame de Burre, and M. J. B. de Troy, Director of the Academy of Rome, as well as various high-ranking government officials.



[23] CATALOG OF PEDRO FRANCO DÁVILA (CA. 1713-1785)

ROMÉ de l'ISLE, J. B. L., and Abbé DUGUAT (1767) *Catalogue systematique & raisonné des Curiosités de la Nature & de l'Art, qui composent le Cabinet de M. Davila.* Three volumes, published in Paris by Chez Briasson on the rue Saint-Jacques.

Pedro Davila was a wealthy Peruvian naturalist living in Paris, who built a spectacular natural history collection. Of the three volumes of his catalog, only the second one deals with minerals, and that was the portion written for Davila by the prominent Parisian crystallographer Jean-Baptiste Louis Romé de l'Isle (1736-1790). Davila was proud of the high degree of completeness achieved by his mineral collection, and he worked hard to see that everything was properly identified. In his Preface he writes:

The earths, the rocks and the minerals comprise the subject of the second volume. Because of the methodical distribution that we have achieved of these various substances, one will easily appreciate that there are few species and even varieties which we have missed. We have followed, as much as possible, the nomenclature of Wallerius, though we have often deviated from the general plan of this author, to follow that of some of the more modern naturalists. We have also employed the [nomenclatural] *phrases* of Linnaeus, especially with regard to the rocks and of ores of Sweden, of which we acquired a very beautiful suite, labeled in accordance with the system of this celebrated naturalist. The care that we took to determine with exactitude the various species of crystallizations which are so frequent in the Mineral Kingdom, gives us reason to hope that the reader will have some indulgence for certain decriptions which run a little long, because they can contribute to a better understanding of these bodies.

Davila eventually ran into problems. His crude manners sometimes offended the aristocratic Parisian collectors with whom he associated, and he was a profligate spender. By 1767 he had run himself 300,000 reales in debt because of his extravagant specimen purchases, and the demands of his creditors forced him to liquidate his collections, including over 8,000 mineral specimens and nearly 4,000 fossils. The three volumes of his auction catalog describe nearly 40,000 specimens total, which brought the equivalent of approximately \$3 million in today's currency. Davila sold an additional 8,000 uncataloged mineral specimens to King Carlos III of Spain a few years later, so his mineral collection actually totaled around 12,000 specimens.

Although Davila's catalog received wide distribution in Paris, London, Rotterdam, Amsterdam and Basle, good copies are scarce.

wit et in (Ordines disposu ques minus in Altsedlitsch ifaa .etc: nchau. C. Majest. in re metallica et monetaria a Considiis Societatis Regice Holmensis Socius. Praga aprid Wolffgangum Gerle 177

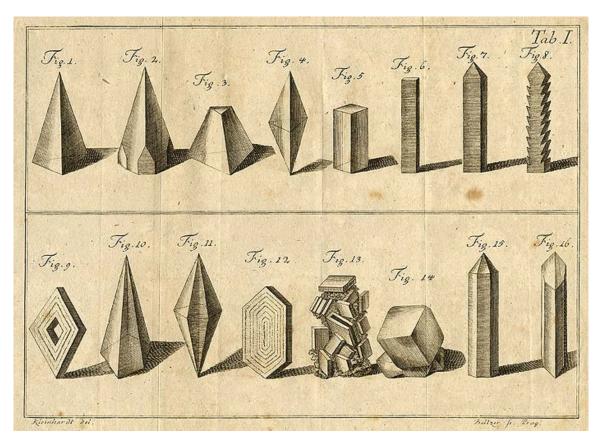
[24] CATALOG OF IGNAZ EDLER VON BORN (1742-1791)

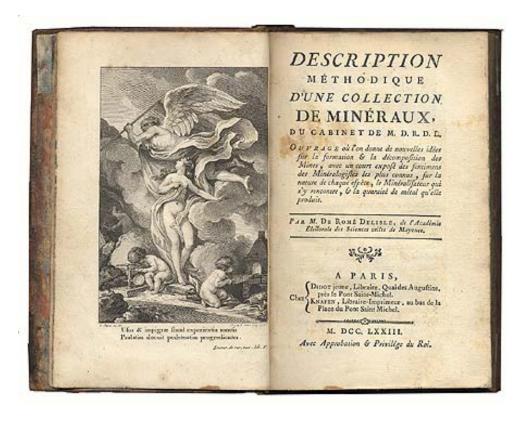
BORN, I. E. (1772) Lithophylacium Bornianum. Index Fossilium quae collegit, et in classes ac ordines disposuit Ignatius S. R. I. Eques a Born. Published in Prague by Wolfgang Gerl.

Ignaz von Born was a prominent Hungarian mineralogist who served as a scientific adviser to royalty and was ultimately placed in charge of the Royal Imperial Natural History Collection in Vienna. He described his collection of about 2,700 mineral specimens in his first catalog of 1772, arranged according to Cronstedt's system and depicting 38 interesting examples on three nicely engraved plates. A year later he sold this collection to the British collector Charles Greville for £1,000 (Greville sold it, along with his own collection, to the British Museum in 1810). Born then set about building a second collection, which he described in another catalog

published in 1775; it listed 930 mineral specimens. What became of this one, no one knows. It is unlikely that he had to sell it for financial reasons because around that time Born had invented a new money-saving amalgamation process for extracting gold and silver from crushed ore, and was awarded a share of the resulting profits from all Hungarian mining operations. This windfall no doubt financed his specimen purchases rather nicely from that point on.

Although I have seen Born's 1772 catalog, his second catalog of 1775 has eluded me, despite nearly 20 years of searching.





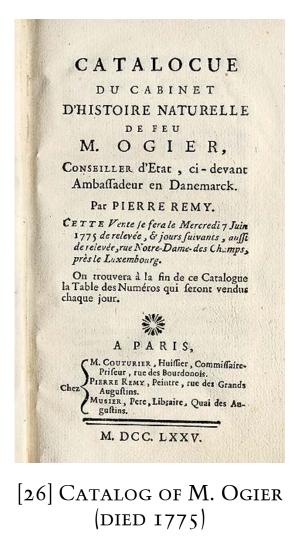
[25] CATALOG OF JEAN-BAPTISTE LOUIS ROMÉ DE L'ISLE (1736-1790)

ROMÉ de l'ISLE, J. B. L. (1773) Description Méthodique d'une Collection de Minéraux, du Cabinet de M. D. R. D. L. [=<u>M</u>onsieur <u>D</u>e <u>R</u>omé <u>d</u>e <u>L</u>isle]. Published in Paris by Didot and Knapen.

Romé de l'Isle was one of the two great French crystallographers at a time when that science was being born, second in prominence only to his contemporary, the Abbot René Just Haüy (1743-1822). Together they are considered the co-founders of modern crystallography.

Romé de l'Isle's described his 750-specimen collection of metallic minerals in a catalog of 1773. His collection was well-known in Paris, and 68 of his specimens were chosen for illustration by Fabien Gautier d'Agoty in his famous color-plate book *Histoire Naturelle Regné Minéral* (1781). His catalog, as one would expect, is considerably more scholarly than average for the time. This fact, and also the publication of his one-volume essay on crystallography in 1772, made him a popular savant in Parsian scientific circles, and he was called upon to prepare quite a number of catalogs for other mineral collectors during the following years. (The Record Library owns several of them.)

Following his death in 1790, Romé de l'Isle's mineral collection was purchased by François Gillet de Laumont (1747-1834), one of the greatest mineral collectors of his day. Gillet de Laumont'd collection, including Romé de l'Isle's original specimens, was purchased in 1835 by the French government and is now preserved in the Museum of Natural History in Paris. Our copy of Romé de l'Isle's catalog is from the library of the Belgian physician Jan Déméste (1745-1783).



REMY, P. (1775) Catalogue du Cabinet d'Histoire Naturelle de feu M. Ogier, Conseiller d'Etat, ci-devant Ambassa-deur en Danemark. Published in Paris by Couturier, Remy and Musier.

Jean-François Ogier (1703-1775), prominent French mineral collector and career diplomat, was the son of Pierre François Ogier and Marie Thérèse Berger. He married Marie Guyonne Cavelier de Cressonsacq and lived in Paris on the rue du quai d'Anjou in the parish of l'Îsle Saint-Louis. By 1768 he had purchased another home, at 14 rue Notre-Dame des Champs.

He served as "président de la chambre des requêtes" in the French Parliament in Paris from 1729 to 1761, and was referred to thereafter as honorary president. He was forced into exile for a while (along with other members of Parliament) for sedition against Cardinal Jean Omer Joly de Fleury (1700-1755), also a prominent mineral collector, in 1732. In 1744 he was appointed "surintendant de la maison de la Dauphine," and as churchwarden that same year he supervised the construction of an organ for the church of l'Îsle Saint-Louis.

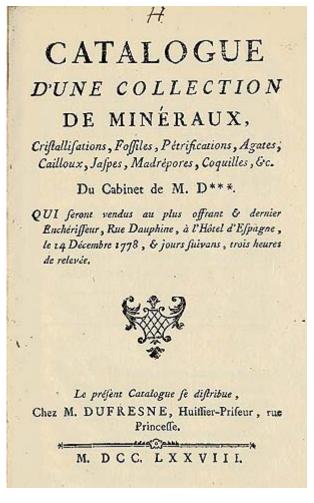
Ogier was appointed an emmissary and sent to Regensburg by the King of France in 1752, and the following year was appointed French Ambassador to the Court of the Kingdom of Denmark in Copenhagen, a post he held until 1766. During the Seven Years War (1754 and 1756-

1763) he was charged by the French Minister of the Navy to organize fleets under the neutral Danish flag in order to send supplies and ammunition to French forces fighting in Canada and the French Colonies. In 1766 he returned to France, was appointed Councilor of State (a post he held for the next ten years, until his death), and was active on the political scene.

Ogier died in early 1775, and on June 7 of that year his mineral collection was sold at auction in Paris. As a result of his many years as ambassador he had accumulated a collection strong in mineral specimens from Norway, Iceland and the Faeroe Islands, complemented by specimens from the Harz Mountains, Freiberg and other northern European localities. His auction catalog, 36 untrimmed pages, describes 134 lots of mineral specimens along with 163 shells and other objects. A bronze bust of Ogier (by Jacques-François-Joseph Saly) is in the State Museum for Art in Copenhagen.

I have translated the short introduction (Avertissement) to the catalog; it reads as follows:

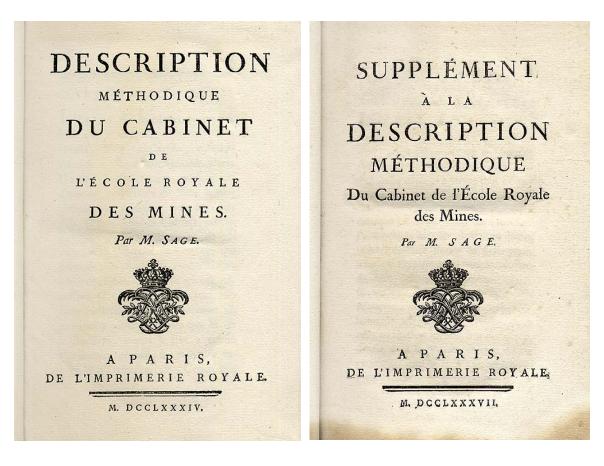
Before going into detail on the objects of the sale which is entrusted to us, we believe that it is absolutely necessary to inform the public, that, though this cabinet cannot to be ranked at the same level as the larger collections, in spite of that it deserves the attention of enthusiasts, for the beauty and above all for the scarcity of many of the specimens which are there. It is mainly with regard to mineralogy that these specimens are rare. The long stay that Mr. Ogier made in Denmark in the capacity of ambassador of His Majesty, the taste with which he made his natural history selections, and in general all the opportunities he enjoyed, put him in an excellent position to collect the productions of the various parts of that empire. As that country is fertile in mineralogy, Mr. Ogier mainly set his sights on the objects which have been reported from there; one will find his collection of specimens to be pleasantly rich in silver, in guartz crystals, in sard, in agate, and above all in chalcedony. Zeolite, that singular production of nature which is barely known of by name in France, is found mainly in Norway. Mr. Ogier brought back many specimens of it, and following his natural inclination to be giving and obliging, it has spread to several other collections. However, he took the wise precaution of retaining the most beautiful examples, which we will detail in this sale. One will find here also a considerable series of marble types, jaspers and porphyries. And there is a pretty collection of shells, among which several are rare.



[27] CATALOG OF MSSR. D^{***}

ROMÉ de l'ISLE, J. B. L. (1778) Catalogue d'une Collection de Miné-raux, Cristallisations, Fossiles, Pétrifac-tions, Agates, Cailloux, Jaspes, Madré-pores, Coquilles, &c. du Cabinet de M. D***. Published in Paris by M. Dufresne.

This very rare catalog of the collection of an anonymous owner was prepared by Romé de l'Isle for an auction to be held on December 14-22, 1778 at the Hôtel d'Espagne. Approximately 2,000 mineral specimens, most of them metalliferous, plus about 1,500 corals, fossils and shells were included. The mysterious owner has never been positively identified. It may have been a member of the Drèe family, or perhaps it was the Belgian physician, geologist and mineralogist Jean (or Jan) Déméste (1745-1783).



[28, 29] CATALOG OF THE ROYAL SCHOOL OF MINES, Paris

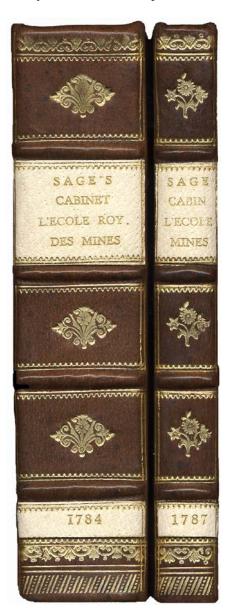
SAGE, B. G. (1784) *Description Méthodique du Cabinet de l'Ecole Royale des Mines*. Published in Paris by the Royal House.

SAGE, B. G. (1787) Supplément à la Description Méthodique du Cabinet de l'École Royale des Mines. Published in Paris by the Royal House.

Balthazar Georges Sage (1740-1824) was a Parisian mineralogist and chemist who rose to prominence despite rather scant competence in those fields. He taught chemical analysis at the Paris Mint, and was one of the founders of the Royal School of Mines in Paris, where he assembled a mineral collection which he claimed to be among the most "complete" in the world. The various species were arranged according to their chemical properties and reaction under the blowpipe, as an aid in the analysis of unknowns. A translation of the first paragraph of his introduction reads as follows:

The study of minerals can only be accomplished with the aid of carefully selected specimens, well-characterized and analyzed so as to be assigned their correct place. To give a methodical description of one of the most complete collections of ores in Europe, each accompanied by associated test results which are the product of twenty-five years of work, is to produce a work which will establish the knowledge of

mineralogy to an ever-increasing degree. It is necessary to note that what this collection contains has become a national monument, since Mr. de la Boullaye, to which the King entrusted the general intendance of the mines, then general controller of finances, has acquired this cabinet to be used for the instruction of the pupils of the Royal School of the Mines, created in 1783, by Mr. Joly de Fleury. This collection offers the whole of the mineral productions of almost all the earth; I have endeavored to compose it only of those species which are best characterized, rejecting the sterile varieties for instruction. This cabinet is systematically arranged in the order of the text on experimental chemistry which I intend to publish.



CATALOGUS bes Feldmannschen Naturalien . Sabinets. Die Auction gefchiehet zu Berlin im Monath epitember -Swanft 1785. Auction le 15 me Septembre

Half-title page of Feldmann's 1785 catalog, show a change of auction date from August to September 15th.

[30] CATALOG OF BERNARD FELDMANN (1701-1777)

FELDMANN, B. (1785) Verzeichniss des von dem zu Neu-Ruppin verstor-benen Doctore und Creysz=Physiko Feldmann nachgelassen Naturalien= Cabinets... Published in Berlin by Friedrich Rellstab.

Bernard Feldmann, a German physician and naturalist, was born in Köln and eventually settled in the town of Neu Ruppin, Germany. He had taken anatomy in Berlin, and then in Leyden where he met the great collector Albert Seba while studying under Hermann Boerhaave. During this time he developed an interest in natural history and collecting which persisted until his death in 1777. He built a substantial natural history collection consisting almost entirely of seashells and minerals.

His son apparently inherited his collections, and put his manuscript catalog in order for eventual publication in conjunction with its auction; he also wrote the foreword to his catalog, dating it May 1, 1785 in Berlin, and seemed quite knowledgeable and enthusiastic about the collection. He listed extensive corrections and additions to the catalog that had been prepared by his father, and urged interested readers to send any further corrections or comments to him at the Feldmann Commissarium in Berlin or to Bürgermeister Göring in Neu Ruppin. The auction of the collection, to be conducted by Sieur Bôhme, was originally scheduled in Berlin for some time in August of 1785, but a handwritten correction shows that it was moved back to September 15.

The collection itself was impressive: approximately 9,000 shells, finished and polished; 1,200 mineral specimens in 566 lots, including 340 pieces of amber; 3,000 rock specimens and petrifactions; over 2,000 polished rock slabs, and a small number of miscellaneous curiosities.

This is an extremely rare catalog, so much so that in 17 years of research on this subject for my monograph on the history of mineral collecting I never came across any mention of it in any bibliography or in any library index.



[31, 32] CATALOGS OF THE DUCHESS OF PORTLAND (1715-1785)

LIGHTFOOT, J. (1786) A Catalogue of the Portland Museum, lately the property of the Duchess Dowager of Portland, Deceased. Published in London by the auction house of Skinner and Company.

Bound with:

LIGHTFOOT, J. (1786) A Marked Catalogue containing the Lots, what each respectively sold for, and the Names of the Purchasers of the four thousand two hundred and sixtythree lots which constituted the Portland Museum; late the property of the Duchess Dowager of Portland, Deceased, which was sold by auction by Mr. Skinner and Co., on Monday the 24th of April, 1786, and the thirty-eight following days, Enabling every Connoisseur to know among whom these valuable Curiosities are distributed, and the sum which every lot produced. Published in London by Kearsley, Walker, Sewell, Flexney, Robson and Egerton.

WALPOLE, Horace (1936) *The Dutchess of Portland's Museum*. With an Introduction by W. S. Lewis. New York, the Grolier Club, xii, 15 (2).

The Duchess Dowager of Portland was Margaret Cavendish Holles Harley Bentinck (1715-1785). Her collections of seashells and minerals were nationally known. Following her death, a portion of her extensive collections went to her son, the third Duke of Portland, and the remainder, 4,156 lots (including some minerals listed as "from the Arundel collection"), was cataloged for auction by her personal librarian, John Lightfoot (1735-1788), a naturalist, author and botanist in his own right. The auction was held in her home in Privy-Garden, Whitehall; it began April 24, 1786 and continued for 39 days, realizing a total of $\pounds 11,546$.

Not only does the copy illustrated here have the hammer price and purchaser handwritten in a fine hand beside each lot, but also a separately published list of prices and buyers. In fact, the correlation between the handwritten notes and the published notes is so precise and complete as to suggest that the handwritten copy may be the actual auction bid book.

Purchasers of the mineral specimens included Mrs. [Jacob] Forster, [Emmanuel Mendez] da Costa, Murry, Dennis, Hamlin, [George] Humphreys, [Daniel] Boulter, Dawl, Slay, Walker, Willis, Wilkinson, Ross, Keate, Shaw, Cotton, Bell, Stevens, Tyson, Wood, Bugden, Watson, Budgen, Cummins, Griffin and Edwin, with many lots simply marked as sold for cash, presumably by buyers unknown to the auctioneers, who were not running a tab but paying individually. The biggest buyer by far was George Humphrey (ca. 1739-1826), a collector, mineral dealer and brother-in-law of the prominent mineral dealer Adolarius Jacob Forster. Humphrey had sold his own collection in 1779 and was clearly either building a new one or building his dealer stock. Perhaps the next most successful bidder was Humphrey's sister Elizabeth, wife of mineral dealer Adolarius Jacob Forster (1739-1806); she operated the family business successfully during her husband's long travels in search of specimens.

A slim volume (one of 450 copies printed) on the Dutchess of Portland's Museum was published in 1936 by the Grolier Club in New York. It was sponsored as a gift by the Club and Mr. Wilmarth Sheldon Lewis of Farmington, Connecticut, who conceived the idea, edited the text, supervised the printing and wrote the Introduction. "In an age of great collectors,"Lewis wrote, "she [the Dutches] revalled the greatest." He notes that her natural history specimens "occupied ninety percent of the items in the auction held after her death by 'Mr. Skinner and Co. on Monday the 24th of April, 1786, and the thirty-seven following days.""

The Dutchess's friend, Horace Walpole (1717-1797), attended the sale and made purchases. He wrote up several pages of background on the Dutchess and her collections, which he had bound into his personal copy of the sale catalog, eventually acquired by W. S. Lewis. This text was reprinted in the Grolier Club edition. In it we learn, for example, that although the Dutchess became interested in natural history rather late in life, she eventually spent over £15,000 on specimens—in a day when the aveage annual salary for a working man was less than £100. Her entire collection, however, brought just £10,965 at auction.

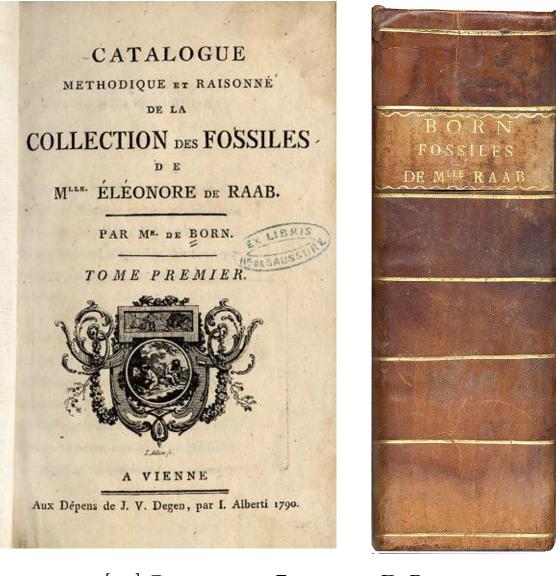
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[33] CATALOG OF ABRAHAM GEVERS (1712-1780)

MEUSCHEN, C. F. (1787) Museum Geversianum sive Index Rerum Naturalium continens instructissimam copiam pretiosissimorum Omnis Generis et Tribus Regnis Naturae objectorum... Published in Rotterdam by P. & J. Holsteyn.

Abraham Gevers, son of a prominent Dutch family, was the Burgomaster of Rotterdam and a Magistrate for Holland and West Frisia, as well as Director of the Society of the East Indies and a member of the Royal Natural History Society and other organizations. He built an extensive natural history collection, including minerals, which was considered to be one of the finest in the Netherlands. It is said that he lined the drawers of his cabinet with blue silk to better show off his specimens.

His very rare auction catalog, published seven years after his death, runs to 655 pages. The mineralogy section, arranged according to the system of Wallerius, lists 636 lots in parallel columns of Latin and French, followed by 204 lots of petrifactions. The descriptions include habit, locality and associated species, plus a reference, usually to Wallerius.



[34] CATALOG OF ELEONORE DERAAB (1741-1793?)

BORN, I. E. von (1790) *Catalogue Methodique et Raisonne de la Collection des Fossiles de Mlle. Éléonore de Raab.* Published in Vienna by J. V. Degen.

Eleonore de Raab, daughter of Bartholomeus Raab and later the wife of Friedrich von Uberta of Austria, became an enthusiastic mineral collector in her youth through the influence of her scholarly mentor, Ignaz von Born. With his help she formed a beautiful mineral collection consisting of about 2,500 small, carefully chosen specimens, many of which were gifts from Born. In 1793, two years after Born's death, her collection was sold to Count Moritz von Friess in Vienna.

Only 70 copies of this catalog were printed; the one shown here is from the library of Born's friend, Horace Bénédict de Saussure (1740-1799), a well-known mineralogist, collector and author in Geneva.

Muleum Boulterianum. ٨ CATALOGUE OF THE CURIOUS AND VALUABLE COLLECTION 0.7 NATURAL AND ARTIFICIAL CURIOSITIES IN THE EXTENSIVE MUSEUM DANIEL BOULTER, YARMOUTH: and a preat Number

[35] CATALOG OF DANIEL BOULTER (1740-1802)

BOULTER, D. (1793) Museum Boulterianum; A Catalogue of the Curious and Valuable Collection of Natural and Artificial Curiosities in the Extensive Museum of Daniel Boulter, Yarmouth. Published in London by Gardner.

Daniel Boulter, one of the purchasers at the Portland auction, was a successful merchant located at No. 19, Market-Place, Yarmouth. He made his living dealing in silverware, cutlery, jewelry, toys, books, stationery, haberdashery, perfume, patent medicines, gloves, watch repair, coins, medals, antiquities and natural curiosities including mineral specimens. Judging by his product lines, one might almost conclude that he ran a small department store. Beginning around 1773 he built an extensive museum of curiosities, which was open to the public for an admission fee of one shilling. Every item in the Museum was for sale, and the fixed prices were indicated in his published catalog. Visitors who made purchases of 10 shillings or more received a refund on the 1-shilling price of the catalog.

In 1794 he sold his shop to his brother Joseph and turned over his museum to his nephew John Boulter. In 1802 John had a copper cupola built over the museum which survived until the building was demolished in 1927.

It is always interesting to examine specimen prices in the early literature, though converting to modern currency is problematic. I like to base a conversion on the equivalent amount of gold in early coinage vs. the price of gold today. Using this method, some of Boulter's specimens were priced in today's dollars as follows:

- A very fine specimen of violet cubic fluors from Cumberland, \$70
- A fine, transparent, hexagonal, columnar, pointed rock crystal from the Brasils, \$100
- A fine specimen of clear, white, tabular barytes from Alston-Moor, Cumberland, \$28
- A fine specimen of amber-colored tabular barytes from the Dofton mine, Westmoreland, very scarce, \$100
- A fine specimen of native gold intermixed with crystallized quartz, Transylvania, rare, \$100
- A fine specimen of iron ore [hematite] in flat tabular crystals resembling a cluster of precious stones, from the Island of Elba, \$70
- A rare species of crystallized antimony [stibnite?] with transparent crystallized blende [sphalerite] and white rock crystals, Cornwall, very rare, \$24
- Fine specimen of beautiful peacock marcasites, Cornwall, \$35
- Black crystallized tin or [cassiterite], Cornwall, \$5
- Native or virgin copper, Cornwall, \$14

Mineraliencabinett
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dem Verfasser
der Erfahrungen vom Innern
ber Gebirge. (F. U. ion Trebro]
Elausthal 1795.

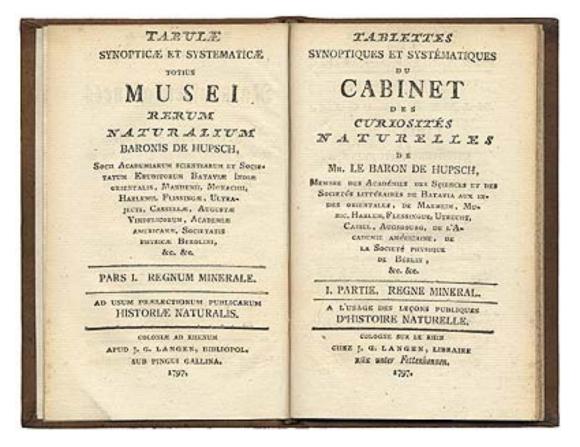
[36] CATALOG OF FRIEDRICH WILHELM VON TREBRA (1740-1819)

TREBRA, F. W. von (1795) *Mineral-iencabinett gesammlet und beschrieben von dem Verfasser der Erfahrungen vom Innern der Gebirge*. Published in Clausthal.

Trebra was a German mining geologist and the Government's Chief Inspector of Mines in Saxony. His mineral collection was self-collected in the various Saxon mines which he oversaw, and housed in a large and beautifully ornate cabinet depicted in a handsome fold-out engraving in his catalog. In 1785 he wrote a book detailing his "Experiences in the Interors of Mountains" which was much admired, and was so well-known by 1795 that he did not sign his name to his catalog, but instead identified himself simply as the author of *Erfahrungen vom Innern der Gebirge*. The 1795 catalog was his first, followed by a second issue in 1797, and another edition for auction purposes in 1822, after his death.

Trebra's catalog would be of some interest to modern collectors were it not so difficult to read in the old German fraktur typeface. He is fairly meticulous about identifying the many old mines he visited and the ores he found there. His text also keys the specimens described to their location within his pictured cabinet.

The copy of Trebra's catalog shown here is in such perfect condition that one is tempted to conclude that it had been hermetically sealed in a nitogen-filled bottle for the last 200 years.

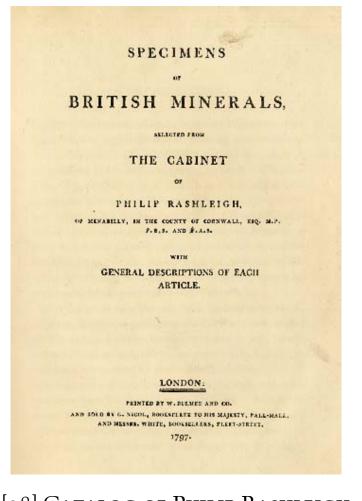


[37] CATALOG OF JEAN HONVLEZ, Alias Baron von Hüpsch (1730-1805)

HÜPSCH, Freiherr von (1797) Synoptische und systematische Tabellen des ganzen Naturalienkabinets des Freih. von Hüpsch. I. Theil. Mineralreich. Published in Köln by J. G. Langen.

Jean Guillaume Fiacre Honvlez was a French dealer in natural history specimens and antiquities in Köln. He felt that in order to sell his wares effectively to the aristocratic classes who were the principal collectors in those days, he needed to sound like he was one of them. Consequently he took an alias for business purposes, calling himself "Johann Wilhelm Karl Adolph, Baron von Hüpsch, Herr zu Lontzen, zu Krickelhausen und auf der Motte." He claimed membership in a variety of scientific societies, many of them imaginary though impressive sounding, including "the Academies of Science and the Literary Academies of Batavia in the East Indies, of Mannheim, Munich, Harlem, Flessingue, Utrecht, Cassel, Augsburg, the American Academy, the Physical Society of Berlin, &c. &c." How many people accepted this deception at face value is unknown, but he was successful and built a substantial personal collection of minerals.

His catalog carries duplicate title pages in German, Latin and French, followed by a tabular arrangement for his minerals and some concluding explanatory text at the end. The copy pictured here is in fresh, perfect condition.

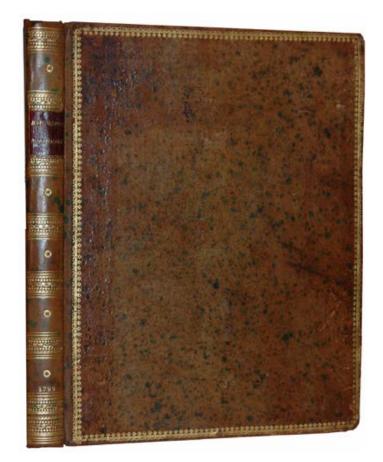


[38] CATALOG OF PHILIP RASHLEIGH (1729-1811)

RASHLEIGH, P. (1797, 1802) Specimens of British Minerals selected from the Cabinet of Phillip Rashleigh of Menabilly, in the County of Cornwall, Esq. M. P., F. R. S., and F. A. S., with general description of each article. Two volumes, Published in London by Bulmer and Nicol.

Philip Rashleigh, perhaps England's most famous early mineral collector, published two handsome volumes of handcolored engravings of specimens in his collection. These volumes are treasured today by collectors of colorplate books, and by those interested in British mineralogy, history and localities, though it must be said that Rashleigh's mineralogical knowledge was virtually nil, and thus his so-called descriptions tell nothing more than could be seen by a cursory examination of the plates themselves. Nevertheless, he had the finely tuned instincts of a connoisseur collector, and managed to assemble one of the most outstanding collections of his day, and probably the finest collection of Cornish minerals ever brought together by a private individual. The excellent renderings in his catalog are the work of three artists, Henry Bone, Thomas Medland and Richard Underwood. The reader interested in learning more is directed Bob Jones' in-depth article in the "Mineral Books" issue of the *Mineralogical Record* (vol. 26, no. 4), and also my "History of Mineral Collecting" (vol. 25, no.6).

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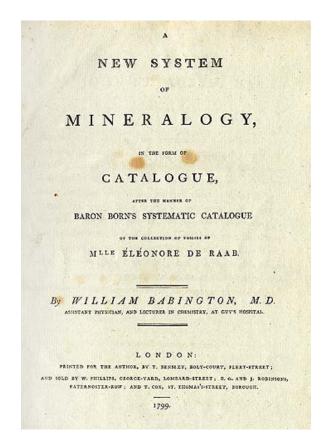


[39, 40] CATALOG OF WILLIAM BABINGTON (1757-1833)

BABINGTON, W. (1796) A Systematic Arrangement of Minerals, founded on the joint consideration of their chemical, physical and external characters; reduced to the form of tables. Published in London by T. Cox.

BABINGTON, W. (1799) A New System of Mineralogy, in the form of a Catalogue, after the manner of Baron Born's Systematic Catalogue of the collection of fossils of Mlle Éléonore de Raab. Published in London by T. Bensley.

William Babington was an Irish physician and mineralogist who, in 1793, purchased much of the enormous mineral collection of John Stuart, the Third Earl of Bute (1713-1792). It was reputed to have contained as many as 100,000 mineral specimens, making it one of the largest such collections in history. Bute had retained Babington for several years as his personal curator. When the Earl died his collection was put up for auction, and Babington, thanks to his familiarity with the collection, was no doubt able to focus on acquiring the best specimens, perhaps with an eye to reselling them later.



Babington's 1796 catalog is really just an outline for arranging the collection. Babington was a great admirer of Ignaz von Born, and of the catalog that Born had prepared in 1790 for Mlle. Éléonore de Raab in Vienna, so he patterned his arrangement of the collection and its catalog on that model. He writes in the introduction:

The contents of the following pages were not originally intended to be made public. They were compiled merely for the author's own use, while employed in arranging a cabinet selected from the very extensive Collection of Minerals which he had an opportunity of purchasing a few years ago. ...As no endeavor has been spared to render the Collection from which this synopsis was drawn up, one of the most perfect in a scientific point of view, the annexed Catalogue will afford, to such as have advanced a considerable way in the business of collecting, an opportunity of determining the comparative value of what they already possess, as well as what articles may yet be wanting to make their cabinets more complete.

Though not overt, such statements were certainly good advertising and good salesmanship. By 1799 Babington had sold the entire collection to Sir John St. Aubyn (1758-1839), but had also greatly expanded his outline into a fully realized descriptive catalog which he published in that year, probably with St. Aubyn's backing. In the dedication he thanks St. Aubyn for giving him continued access to the collection following the sale, and in the introduction he acknowledges his debt to Born regarding the systematic arrangement, to Romé de l'Isle as his "guide on the subject of crystallization," to Widenmann and Emmerling for the generic descriptions, and to Kirwan for the chemical properties and analyses. Each specimen in the collection is assigned a systematic number, is carefully described, and its locality given. This is our only hint as to the high quality of the Bute collection, and a great many of the pieces, as described, sound excellent indeed. Both of these catalogs are very rare on the market.

SYSTEMATIC ARRANGEMENT

٨

MINERALS,

FOUNDED ON THE

JOINT CONSIDERATION

OF THEIR

CHEMICAL, PHYSICAL, AND EXTERNAL

· CHARACTERS;

REDUCED TO THE FORM OF TABLES,

AND EXHIBITING

THE ANALYSIS OF SUCH SPECIES AS HAVE HITHERTO BEEN MADE THE SUBJECT OF EXPERIMENT.

By WILLIAM BABINGTON, M. D.

LECTURER IN CHEMISTRY, AND ASSISTANT PHYSICIAN AT GUY'S HOSPITAL.

SECOND EDITION.

LONDON:

PRINTED FOR T. COX, AT HIS MEDICAL LIBRARY, ST. THOMAS'S STREET, BOROUGH AND SOLD BY G. G. AND J. ROBINSONS, PATERNOSTER-RGW; J. JOHNSON, ST. PAUL'S CHURCH.YARD; AND MURRAY AND HIGHLY, FLEET.STREET.

1796.

Axis, Volume 2, Number 1 (2006)

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	1804

[41] CATALOG OF JACOB FRIEDRICH VON DER NULL (D. 1826?)

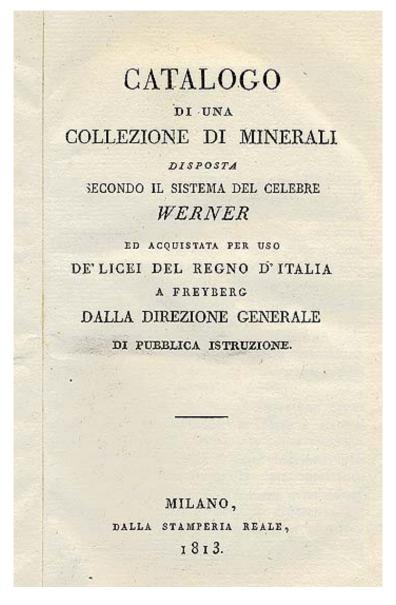
MOHS, F. (1804) *Des Herrn Jac. Fried. von der Null Mineralien-Kabinet…als Handbuch der Oryctognosie.* Three volumes, published in Vienna "at the expense of the owner."

Von der Null (actually van der Nüll) was a wealthy Austrian banker and businessman in Vienna. He built an exceptionally large and fine collection with the help of his personal curator, the well-known mineralogist Friedrich Mohs. One authority pronounced it "not only the best private collection in Vienna, but in all of Germany as well, and technically the most instructive." His collection of what we would call small-cabinet-size specimens (2 to 4 inches) was begun in 1797 and had achieved major status within just three years. Null took the fast track to collection building, purchasing no less than eleven major mineral collections from other collectors within a ten-year period. Approximately 4,000 of his specimens are described in his scholarly three-volume catalog of 1804, although unfortunately it contains no plates or illustrations.

Mohs (1773-1839), who was one of Abraham Werner's outstanding students, applied his knowledge of systematic mineralogy to the formation of the collection and the organization of the catalog, which consequently was of such high quality that it could double as an instructional handbook of mineralogy. Mohs, however, had doubts about Werner's preferred system, first expressed in the Null catalog, and later went on to formulate his own system.

The Null catalog is among the most important of all early mineral collection catalogs, but it is very rare on the market today. All three of the volumes from the set illustrated here are from the first edition, first issue, of 1804, and have been beautifully bound in white vellum.

F. WOHS V. D. NULL MINERALIEN KABINET	F. NOES V. D. NULL VINERALIEN KARINET	F. MOHS V. D. NULE MINERALIEN KABINET
L	I	Ш
1804	1804	1604



[42] MINERAL COLLECTION ASSEMBLED FOR THE LYCEUM OF MILAN

MALACARNE, G. C. (1813) Catalogo di una Collezione di Minerali disposta Secondo il Sistema del Celebre Werner, ed acquistata per uso de' Licei del Regno d'Italia a Freyberg dalla Direzione Generale di Pubblica Istruzione, Milano, dalla Stamperia Reale, 316 pages.

Abraham Gottlob Werner (1749-1817), Professor of Mineralogy and Mining at the Freiberg Mining Academy, was among the most famous mineralogists of his day, and the founder of a widely used system of classification for minerals. At the request of the Italian Government, Werner (who was also curator of the Academy mineral collection) assembled a teaching

collection of 462 mineral specimens. A catalog was prepared in Italian for the collection, utilizing the classification system of Werner. The title in English would be: "Catalogue of a Collection of Minerals arranged According to the System of the Celebrated Werner at Freyberg, and acquired for use of the Lyceum of the Kingdom of Italy by the Director General's Office of Public Education."

A *Liceo* ("Lyceum") was and still is a college-preparatory high school with a five-year program. The *Regno d'Italia* (Kingdom of Italy) no longer exist, but the Liceo is still an important part of the Italian education system. Like American "magnet schools," a *Liceo Scientifico* has more of a math and science-oriented curriculum, whereas a *Liceo Classico* also teaches Greek, with more emphasis on art, history and philosphy.

In 1813 Northern Italy was under Emperor Napoleon and was therefore well under the influence of the new enlightened thinking that attached much importance to science. In that spirit the General Director of the School System promoted the purchase of mineral collections to be used as teaching aids. These collections, which also included wooden crystal models and other classroom equipment, were purchased from the countries that were more advanced in mineralogy (especially Germany—Freiberg being the main source, but probably also France). The catalogs of these collections, usually written in German or French, would then become a sort of textbook for teaching mineralogy. This catalog, however, was written in Italian and included cross-references to the German and French terms.

It is not clear from the text which particular *Liceo* received this collection (there were several in Milan). It is possible that the collection was divided up among more than one school, all of which used the catalog as a textbook. The title states that the collection was arranged accordance to the system of Werner, but not necessarily by Werner himself.. The introduction reveals that the book was written by "an expert amateur in the natural sciences, previously a professor for many years, in one of our public education establishments." There appears to be no solid documentation as to who the "expert amateur" was. However, various booksellers' catalogs attribute authorship to G. C. Malacarne, based on the name found on the spine of a particular leatherbound copy. A Giuseppe Claro Malacarne (1777-1828) wrote books on shells, snails and chemistry, so it is probable that he is the author.

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	QUI COMPOSENT
LE	MUSÉE MINÉRALOGIQUE
	DE M. LE MARQUIS DE DRÉE.
33	[88]
Alex	Se trouve A PARIS,
Chez M. L	De trouve A FARIS, ALLET, Commerçant en objets d'arts, rue Montmartre, 175; AMAN, rue Saint-Dominique, nº 11, faubourg Saint- remain. 1814.

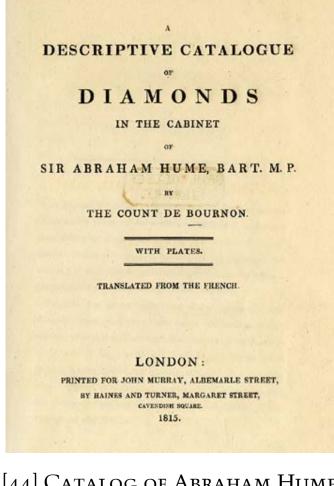
DRÈE, E. G. (1814) Catalogue des Objets Rares et Précieux formant les huit collections,,,qui composent le Musée Minéralogique de M. Le Marquis de Drée. Published in Paris by Paillet and Léman.

The Marquis de Drée was a French nobleman and brother of the famous French geologist Deodat Dolomieu. He is known to have purchased some of the mineral collection of Baron Philippe Joubert, who was executed during the French Revolution in 1792. Drée published his first collection catalog in 1811, and expanded upon it in an edition of 1814. An auction catalog was published by Lacoste in 1816, and another in 1826. Drée apparently built collections to sell, and did so repeatedly. His 1826 collection was purchased in its entirety by the British mineral dealer

J. Henry Heuland. His last and perhaps largest collection was sold to the Paris School of Mines in 1845 for 215,000 francs; it included at least eight major collections which Drée had purchased since 1826.

The rare 1814 catalog, the one owned by the Record Library, contains chapters on minerals, rocks, volcanic products, organic fossils, polished rock plates, marble statuary, engraved gems and agates, and fine gemstones. An introductory note to the mineralogy section (in French, translated here) reads as follows:

This numerous collection, which is composed of more than eight thousand four hundred and seventy-five species and varieties, is contained either in chests of drawers, or in mahogany and glass showcases. Nine hundred to a thousand specimens are arranged and classified methodically in glass cases, so as to be able to quickly follow the whole of a complete collection of mineralogy. It is classified following the system of the scientist who has extended so far our knowledge of crystallography, Mr. Haüy, with some changes that the current state of the science required. Also included are two series of crystal models, one of wood by Mr. Haüy; and the other of ceramic material by Mr. Romé de l'Isle.



[44] CATALOG OF ABRAHAM HUME (1749-1838)

BOURNON, J. (1815) *A Descriptive Catalogue of Diamonds in the Cabinet of Sir Abraham Hume.* Published in London by John Murray.

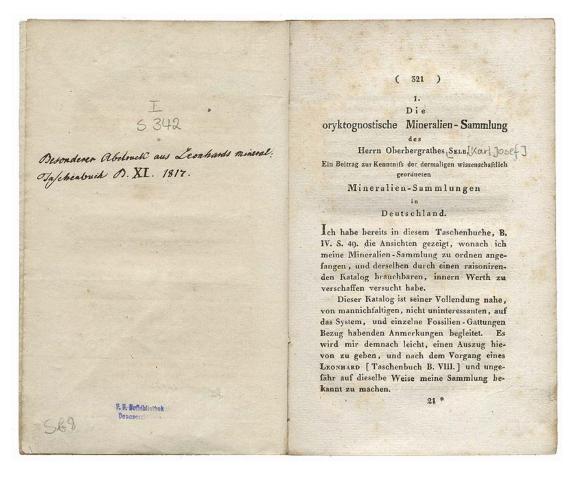
Sir Abraham Hume, along with Sir John St. Aubyn and Charles Greville, supported Count Bournon during his exile in England as a result of the French Revolution. They employed him to curate their mineral collections and, in Hume's case, to also produce a collection catalog focusing on his fine suite of diamond crystals. At that time there was no scholarly work on the mineralogical aspects of diamonds, and it had been only a few years since any quantity of uncut diamonds had reached England for inspection; before that time all rough diamonds had been channeled to the Netherlands and Portugal for cutting. So Bournon's catalog, with angle measurements and 71 engraved drawings of idealized crystals and actual specimens, was an important contribution to the knowledge of diamond morphology.

Actually, Bournon and Hume should be considered as coauthors of the catalog, because it was Hume who wrote the text describing his 107 crystals (signed at the end "A. H.") while Bournon wrote the crystallographic observations (signed "C. de B.") and prepared the angle table and list of forms, based on his own goniometric measurements. The title page is dated 1815, and

a tipped-in strip states that "The French original of this Catalogue, with the Plates, is also published." Then, following Hume's "Advertisement" (Introduction), dated May 1815, is a note from Hume dated January 1816 which reads: "The engraving of the Plates having retarded the publication of this Catalogue for several months, I am enabled by the kindness of Count de Bournon to render it more complete." So it appears clear from this that they collaborated on it, and that it was actually not published until 1816. Bournon supplies some additional background in his "Letter, &c." (his own introduction):

You may recollect that my first work on diamonds, of which your collection was the motive and ground-work, happened some time after to be mislaid, and lost. Flattering myself that what had cost me so much pains and trouble might ultimately be recovered, the period arrived when, after twenty-five years of voluntary exile [since 1789] from my unhappy country, my august and legitimate Sovereign was restored to the throne of his ancestors [this took place in 1814, when Louis XVIII was restored as King]. Being, consequently, about to return to France, I felt it impossible for me to quit a friend of twenty years standing [they had met when Bournon came to England in 1794]...without completing the Catalogue of his valuable Collection of Mineralogy, the formation, as well as the superintendance of which had been entrusted to me. I therefore delayed my journey, for the purpose of making a Catalogue of your choice Collection of Diamonds, with drawings of their various forms. This work, however, which, from want of time, I was obliged to do in a hurry, remained incomplete... An event equally unexpected as it has been disastrous and afflicting to humanity [Napoleon's return from exile in March 1815], having occasioned my return to this happy and hospitable land. I had the satisfaction to find that it was your intention to publish the Catalogue of Diamonds, together with the Plates, and that the descriptive part was already printed.

He then goes on to say that he was happy to have the opportunity to remeasure the crystals and create a more accurate angle table for the catalog. This explains Hume's statement that the delay in printing the plates allowed time for Bournon to make additional contributions to the work. Bournon then discusses the crystallographic ramifications in some detail, taking issue with Haüy on some points. Then follows his table, and Hume's description of each of his specimens in some detail, morphologically, but unfortunately without giving any locality data. Probably the information on exactly where each crystal had come from was not maintained by the diamond merchants and was therefore simply unavailable.



(45) CATALOG OF KARL JOSEF SELB (1755-1827)

LEONARD, K. C. von (1817) Die Oryktognostische Mineralien-Sammlung des Herrn Oberbergrathes Selb. Ein Beitrag zur Kenntniss der dermaligen wissenschaftlich geordneten Mineralien-Sammlungen in Deutschland. Specially printed extract or offprint ["Besonderer Abdruck"], prepared for limited distribution, from Leonard's Taschenbuch, vol. XI, p. 321-460.

Selb was Director of the salt works at Dürrheim, and also of the mining operations at Wolfach in Kinzigthal. He co-authored a book of mineralogical studies with Karl Cäsar von Leonard in 1812, and wrote several other books on geology and mining. His large mineral collection, numbering over 3,000 specimens, was described and cataloged by Leonard in order to demonstrate how a mineralogical cabinet should be properly arranged.

Most specimens were in the 2 to 3-inch size range; the larger cabinet specimens were arranged in glass cases, and each piece had a catalog number affixed to an inconspicuous spot on the specimen.

This off-print catalog, which is in fine condition in original marbled boards, is extremely rare, with no other copies known. It was part of the library of Prince Fürstenberg at Donaueschingen, and is signed inside the front cover by Dr. W. A. Rehmann, the Fürstenberg family physician.

DAS KAISERLICH-KÖNIGLICHE **HOF-MINERALIEN-CABINET** IN WIEN. EINE ÜBERSICHT DER NEUEN AUFSTELLUNG DESSELBEN, NACH DEM NATURHISTORISCHEN MINERAL - SYSTEME DES HERRN PROFESSORS MOHS. Paul Partsch Inspector des k. k. Hof - Naturalien - Cabinets. Mit einem Grundrifse. WIEN, 1828. IM VERLAGE BEY J. G. HEUBNER. GEDEUCKT BET ANTON STRAUSS'S SEL. WITWE. (46) CATALOG OF THE ROYAL IMPERIAL MINERAL COLLECTION IN VIENNA

PARTSCH, P. (1828) *Das Kaiserlich-Königliche Hof-Mineralien-Cabinet in Wien*. Published in Vienna by J. G. Heubner.

This small catalog, organized according to the system of Mohs, is really just a mineralogical outline of a systematic arrangement of the enormous collection of Franz Stefan von Lothringen (1708-1765), indicating the room and showcase in which each of the species was displayed. According to the fold-out floor plan, there were three connected salons and a mosaic room. This collection, which had absorbed the huge Von Baillou collection in 1748, was established as a public institution by Stefan's widow, Maria Theresa, after his death in 1765, and she hired Ignaz von Born to be its curator. Born died in 1791, but the collection continued to grow by the acquisition of still other major collections, including those of Anton Ruprecht (1814), Baron Franz Müller von Reichenstein, the discovered of tellurium and the Director of Mines in

Transylvania (1825), Karl von Ployer (1812) and Johann Fichtel (1795), among many others. In 1889 the Royal Imperial collections were reorganized into the present Naturhistorisches Museum.

Paul Maria Partsch (1791-1856), the author of the catalog, had inherited a fortune in 1824, and as of 1828 was serving as Inspector of the Royal Imperial Natural History Collections. He was a founding member of the Austrian Academy of Science and helped finance many mineralogical publications.

CATALOGUE

RICH AND VALUABLE CABINET

OF A

MINERALS:

OF

AND, ALSO, OF A SELECT

CRYSTALLOGRAPHICAL CABINET,

CONTAINING

A GRBAT VARIETY OF CURIOUS CRYSTALS,

TO THE EXTENT OF SOME THOUSAND SPECIMENS, WITH DRAWINGS AND MEASUREMENTS ANNEXED:

THE PROPERTY OF THE

LATE WILLIAM PHILLIPS, F.R.S., F.L.S., F.G.S.,

AUTEOR OF THE "INTRODUCTION TO MINERALOOY;" AND (JOINTLY WITH THE REV. W. D. GONYBRANE) OF THE "GROLOOY OF ENGLAND AND WALKS:"

Now to be disposed of by Pribate Contract.

Further particulars may be had, by application to G. B. SOWERBY, No. 156, Regent-Street, to whom Communications on the subject may be addressed.

Lendon:

PRINTED FOR HARVEY AND DARTON, GRACECHURCH STREET.

1829.

(47) CATALOG OF WILLIAM PHILLIPS (1775-1828)

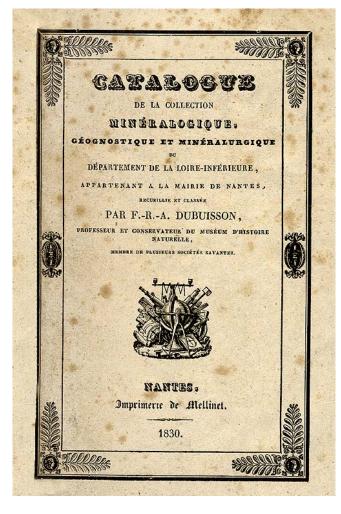
SOWERBY, G. B. (?)(1829) Catalogue of a Rich and Valuable Cabinet of Minerals; and also of a select Crystallographic Cabinet, containing a Great Variety of Curious Crystals, to the extent of some thousand specimens, with drawings and measurements annexed; the property of the late William Phillips, F.R.S., F.L.S., F.G.S., author of the

"Introduction to Mineralogy"; and (jointly with the Rev. W. D. Conybeare) of the "Geology of England and Wales": now to be disposed of by private contract. Published in London by Harvey and Darton.

William Phillips was a prominent British mineralogist and author, the elder brother of Richard Phillips (1778-1851) and a son of James Phillips (who printed Pryce's *Mineralogia Cornubiensis* in 1778). William's mineral collection numbered about 1,000 specimens and included a "crystallographic cabinet" of interesting crystal specimens. His collection was "in part made by a Cornish gentleman, many years ago, under very favourable circumstances," and was enlarged by Phillips. Most of the specimens figured in Phillips' well-known *Introduction to Mineralogy* were drawn after specimens in this collection. The collection was particularly rich in Cornish specimens, especially native copper, cuprite, calcite, cassiterite, and various copper arsenates and phosphates. The specimens are generally well-identified as to locality, especially the Cornish examples for which many specific mine names are cited.

The Phillips family was cordial with the Sowerby's; Richard had loaned many specimens to James Sowerby for illustration in his *British Mineralogy*, and James' son George was apparently the executor of the Phillips mineral collection. Sowerby sold the collection as a whole to Dr. John Rutter, who later bequeathed it to the Medical Institution of Liverpool. It was transferred from there to the Liverpool Museum, where it was destroyed by German bombing in 1941.

The copy shown here is in perfect mint condition.

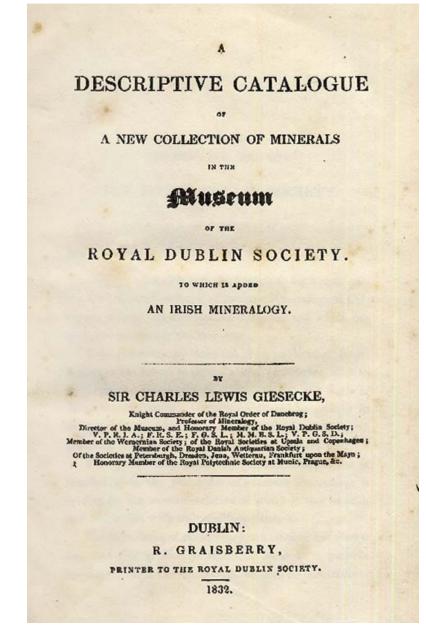


(48) Catalog of François Dubuisson (1763-1836)

DUBUISSON, F.-R.-A. (1830) Catalogue de la Collection Minéralogique, Géognostique et Minéralurgique du Département de la Loire-Infériure, appartenant a la Mairie de Nantes, recueillin et classée. Published in Nancy by De Mellinet.

François-René-André Dubuisson, the son of a goldsmith, apprenticed as an apothecary and opened his own shop in Nancy in 1788. He had a strong interest in the natural sciences, and during the 1790's he collected mineral, plant and animal specimens wherever possible, especially in the Loire-Inférieure area. In 1799 he presented his collections (including his "magnificent collection of minerals") to the city of Nancy, and was appointed Director of the new museum of natural history; it opened its doors to the public in 1810.

In 1830 Dubuisson prepared a catalog of the museum's collections which he had built, describing the most productive collecting areas and then listing the mineralogical specimens in detail, by locality—209 localities within the five *arrondissements* or divisions within the department.



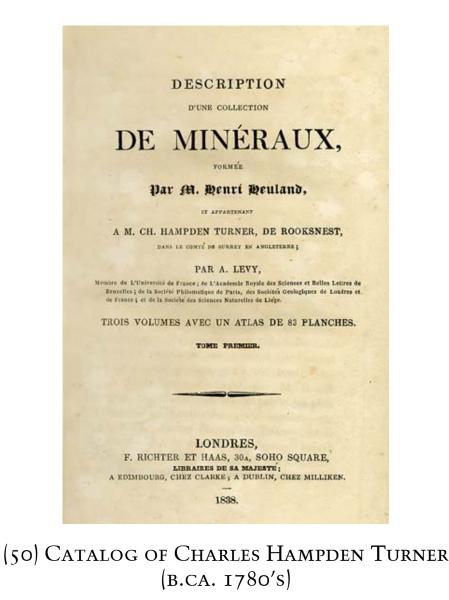
(49) CATALOG OF THE ROYAL DUBLIN SOCIETY

GIESECKE, C. L. (1832) A Descriptive Catalog of a New Collection of Minerals in the Museum of the Royal Dublin Society, to which is added an Irish Mineralogy. Published in Dublin by R. Graisberry.

Charles Lewis (Karl Ludwig) Giesecke (1761-1833) was a German mineralogist and field collector. He made several collecting trips to Greenland and Ireland in particular, later distributing specimens to Thomas Allen (in 1808), to the Geological Museum in Copenhagen (in 1814) and to the Museum of the Royal Dublin Society (in 1815), among others. He was made a

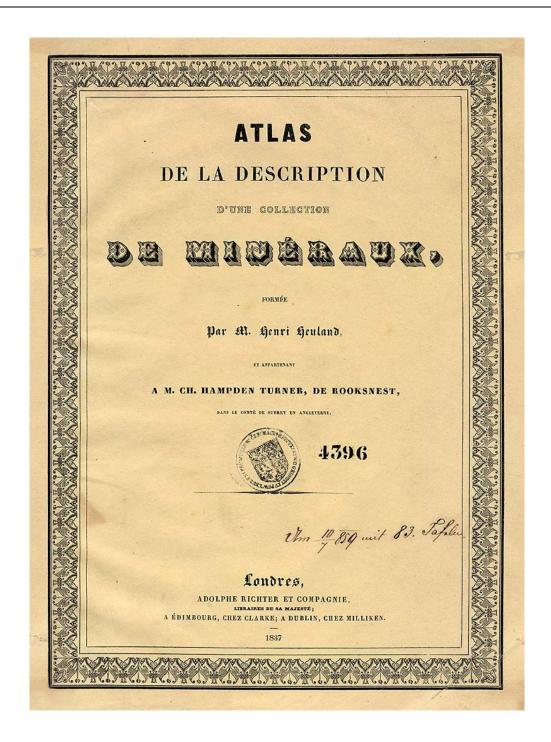
Professor of Mineralogy and Director of the Dublin Museum, where he spent a year preparing the catalog of their collection (which was heavy in his own donations). It was published in 1832, the year before his death.

Each specimen in the catalog is numbered, the non-metallic minerals totaling 1,585 specimens and the metallic species equaling 747, for a total of 2,332 specimens. He then lists 229 species found in Ireland, many of them personally collected, giving their descriptions and detailed locality data. In some cases the list of localities is substantial; galena, for example, is noted from over 50 separate occurrences in Ireland.



LEVY, A. (1838) Description d'une Collection de Minéraux, formée par M. Henri Heuland, et appartenant a M. Ch. Hampden Turner, de Rooksnest, dans le Comte de Surrey en Angleterre. Three volumes and an atlas, published in London by Richter and Haas.

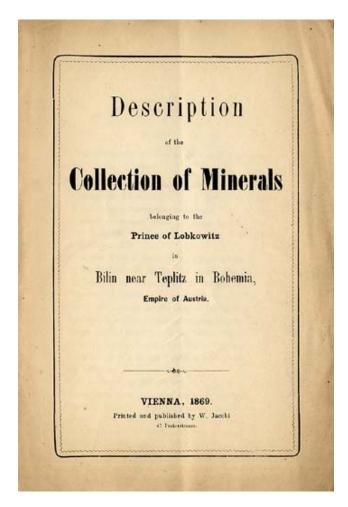
John Henry Heuland (1778-1856) was a prominent and successful London mineral dealer and nephew of mineral dealer Adolarius Jacob Forster (1739-1806). Heuland inherited a fine collection from Forster in 1806, and continued to add to it until 1820, when he sold it to Charles Hampden Turner of Rook's Nest, Godstone, Surrey, England. Heuland and Turner agreed that an elaborate catalog of the collection should be published, classified according to the system of Haüy and illustrated by an atlas of crystal drawings. The introduction (in French, translated here) in volume 1 explains the problems that were encountered:



The late Mr. Jacob Forster formed, over the course of forty years, a very beautiful collection of minerals, in general of the two to three-inch format, which was continued from 1806 until 1820 by Mr. Henry Heuland, and enriched by him with the most invaluable pieces. This collection was sold, in 1820, to Mr. Charles Hampden Turner, and it was decided that a *catalogue raisonné* would be published. Preparation of the catalogue was entrusted to Mr. Armand Levy who, at that time, was residing in London. In giving this task to Mr. Levy, Mr. Heuland did not believe it necessary to have a formal contract with him: he simply accounted to him a sum of so much per month. But he was to regret the postponement of this little of precaution. At the end

of seven years, Mr. Levy, providing assurances that the drawings were finished, as well as the tables containing measurements of the angles of the crystals, proposed to have the work printed in Brussels, where he was to form a partnership with one of his friends, and where the printing would be less expensive than in England. Mr. Heuland accepted the proposal, and agreed to pay more than 100 pounds sterling so that Mr. Levy could relocate himself to Belgium. This was in June 1827. Immediately upon arriving in Brussels, he went to work, and Mr. Wahlen, the printer, and Mr. Pletinckx, the lithographer, each began to work on the project; meanwhile, Mr. Levy drew 15 pounds sterling per month from Mr. Heuland to supervise the printing of the text and the plates. This operation had begun in August 1827, but in November 1828 Mr. Levy, after having received more than two thousand pounds sterling in emoluments, without regard for his commitment and despite the proper representations of Mr. Heuland, abandoned his work and the enterprise to take a professorship in Liege, a professorship which would not have prevented him from continuing to supervise the printing of the work in his spare time. But it was not to happen, and nothing was done from this time until 1832, when political events and changes caused the return of Mr. Levy to France. This professor then promised sincerely to finish the plates, but it was always only promises, and he did not complete anything. However, so that the great sum of money already devoted to the execution of this work would not be lost, Mr. Heuland availed himself of the friendship and the extreme kindness of Mr. Henry James Brooke, who, with his son, Doctor Charles Brooke, found a young man in London, Mr. E. Brookes, whom they charged with completing this work. This young man, with the help of their instructions, managed to carry out the drawings of the thirty-four plates which remained to be made, and as well as Mr. Levy could have done himself. If this work, which contains descriptions and figures of the crystals of a great number of very rare substances and many new varieties of form, is finally finished, it is not without grief as you have just seen.

The compilation stands as one of the most elaborate and technically detailed catalogs of any mineral collection. During its preparation Levy described a number of new species based on specimens in the collection, including forsterite, babingtonite, brochantite, roselite brookite, herschelite, phillipsite and beudantite.



(51) Catalog of the Princes of Lobkowitz: Joseph Franz Maximilian Lobkowitz (1772-1816) Ferdinand Joseph Lobkowitz (1797-1868)

RUBESCH, J. (1869) Description of the Collection of Minerals belonging to the Prince of Lobkowitz in Bilin near Tepliz in Bohemia, Empire of Austria. Published in Vienna by W. Jacobi.

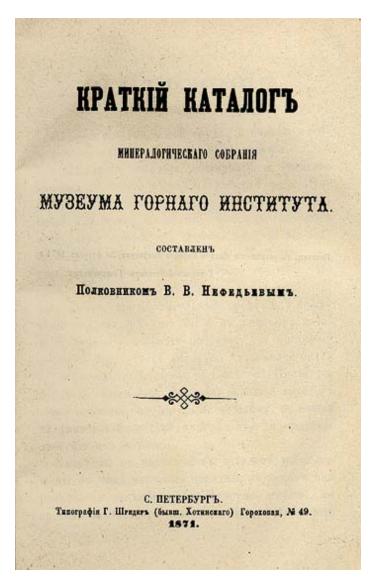
Joseph Franz Maximilian Lobkowitz (1772-1816) was a Bohemian prince in the town of Bisin near Topliz. He assembled an enormous collection of minerals, added to by his son, Prince Ferdinand Joseph Lobkowitz (1797-1868). Following the younger prince's death the collection was organized and a sale catalog, really just a prospectus, was prepared. It does not describe many individual specimens, but gives the number of specimens, in boxes and mounted on boards, in each category, and does cite a few highlights. For example, "The axinite from Bourge d'Oisans is remarkable for the largeness of its crystals," "In the series of the tournaline there are crystals eminent in every respect; besides, a large red crystal from Siberia is one of the curiosities of this species," and "The species of sphene possesses uncommonly fine single and twin-crystals, among which a colossal twin-crystal from Arendal." Under "metals" the catalog mentions "most

remarkable native tellurium in small crystals, and amalgam with a surprisingly beautiful specimen from Moschellandsberg [moschellandsbergite] which contains a magnificent rhombdodekahedral crystal...this may undoubtedly be considered as one of the finest specimens existing of this species."

The collection, numbering an amazing 41,217 specimens weighing a total of 80 tons (averaging nearly 4 pounds per specimen), is said by Rubesch to be "universally acknowledged as one of the largest and most beautiful of private collections existing, and inferior to none in all the Austrian Empire but the Imperial Collection of Minerals in Vienna." It had been built at a cost of 100,000 florins, and was ultimately purchased in 1870 by the Hungarian National Museum for 35,000 florins. Whether its overall quality matched its mass, and whether it really did compare favorably to other Austrian collections like that of Null, is unknown but, judging from the descriptions of the highlights, it contained a great many superb specimens.

The catalog lists 11,675 specimens in the main oryktognostic collection, 2,150 in the geognostic collection, 1,545 petrifactions, 2,492 specimens collected from the Princes' own estates, the collection of 7,071 specimens from the Tepliz-Bilin area made by Reuss while preparing his *Geognostic Sketches of Bohemia* (1840), and by Ettinghausen while preparing his *Fossil Flora of the Tertian Basin of Bilin* (1866), 3,372 "natural curiosities forming various figures and fanciful designs," an oryktognostic sub-collection of 2,962 specimens arranged according to the system of Mohs, 6,258 specimens from various localities in the Austrian Empire, and various other small sub-collections.

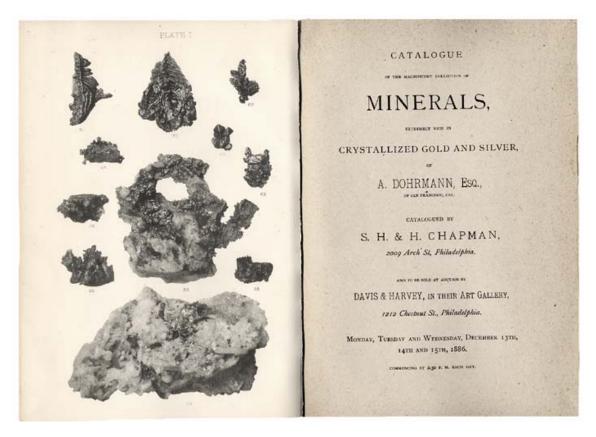
This extremely rare catalog (I know of no other copy) is only 12 pages long, and is printed on brittle, high-acid paper typical of the 1860's. To preserve this rarity the paper has been deacidified, and the paper-wrapped booklet has been mounted in a map-pocket attached to the inside cover of a hard-bound photocopy of the same work prepared on cotton paper. A note at the end states "Translated from German by H. Berger," from which we may conclude that there was probably also a German edition, but it is likely that no copies of it survive.



(52) CATALOG OF THE St. Petersburg Mining Institute

Нефедьевымъ, В.В. [NEFEDEV, V. V.](1871) Краткій Каталогъ Минералогичекаго Соьанія Музеума Горнаго Института. ["Concise Catalog of the Mineralogical Collection of the Museum of the Mining Institute"] Published in St. Petersburg by T. G. Shreder.

This catalog, prepared by Colonel V. V. Nefedev (entirely in Russian), describes the mineralogical collection in the museum of the St. Petersburg Mining Institute; 519 species are listed, along with their localities, arranged according to the fifth edition (1868) of Dana's *System of Mineralogy*.

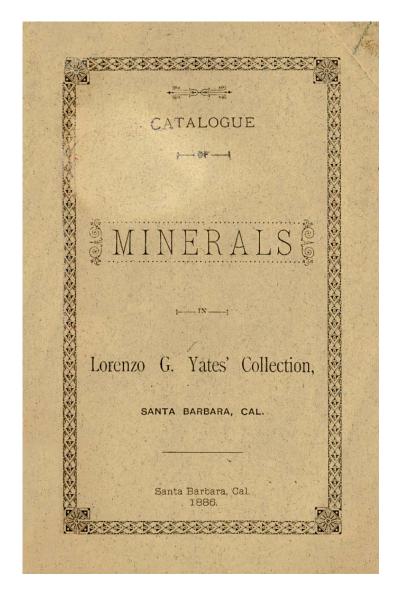


(53) CATALOG OF A[UGUST?] DOHRMANN (1826-1886?)

CHAPMAN, S. H., and CHAPMAN, H. (1886) *Catalogue of the Magnificent Collection of Minerals, extremely rich in Crystallized Gold and Silver, of A. Dohrmann. Esq., of San Francisco, Cal.* Published in Philadelphia by S. H. and H. Chapman..

A[ugust?] Dohrmann was a Hamburg-born house-builder who lived in San Francisco with his Chilean-born wife, Maria, and his partner in the business, Rudolph Talman (also from Hamburg). He formed a superb collection "extraordinarily rich in beautiful and rare crystallized specimens of gold, silver and cinnabar, which, as far as we are informed, surpass the other examples known from the Pacific Slope of the United States, and which region this cabinet principally represents." The collection was arranged according to the fifth edition of Dana's *System of Mineralogy* (1868). This was one of the most important collections ever to appear at auction in the United States during the 19th century, and a number of serious collectors attended. The nine artotype plates show a number of fine gold specimens which are still well-known today, some of which are preserved in the Harvard Mineralogical Museum as part of the Georges de la Bouglise Collection.

Only 100 copies of the Dohrmann catalog were published, and were sold at the production cost of \$1 each. The auction, by S. H. and H. Chapman (specialists in numismatics, antiquities, scientific and archeological collections) took place on December 13-15, 1886, at the art gallery of Davis and Harvey on Chestnut Street in Philadelphia.



(54) Catalog of Lorenzo Gordin Yates (1837-1909)

YATES, L. G. (1886) *Catalogue of Minerals in Lorenzo G. Yates' Collection, Santa Barbara, Cal.* Published by the author in Santa Barbara.

Lorenzo Gordin Yates came to the United States from England at the age of fourteen. He studied medicine and dentistry in the East, and moved to California around 1864. His interest from early childhood in collecting minerals, fossils and shells resulted in a lifelong study of numerous aspects of natural history. He wrote a lectured extensively about mineralogy, conchology, paleontology, botany, ethnology and other subjects while building his collections. Yates was President of the Santa Barabara Society of Natural History, Secretary of the Board of

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Horticultural commissioners of Santa Barbara County, and President of the Santa Barbara Chapter of the Agassiz Association. He was a Fellow of the Linnaean Society of London, an associate member of the Victoria Institute of London, and an honorary member of many other scientific organizations.

Yates published separate catalogs of his mineral, fossil and shell collections in 1885-1886. His mineral collection catalog, a slim volume of 71 pages on high-acid paper, lists 1,674 specimens with localities and occasional descriptive information. His gold specimens were primarily from several mines in Colorado and a dozen mines in Baja California, making them quite rare and unusual in terms of provenance. Likewise his specimens of hemimorphite, calcite and smithsonite, of which there were 15, 56 and 22 respectively, came not from the usual sources but primarily from the mines at Mineral Point, Wisconsin. He had no less that 50 crystals of durangite from the type locality in Durango, Mexico; many cerussite, anglesite and pyromorphite crystals from the Wheatley mine in Pennsylvania; carrollite from the type locality in Carroll County, Maryland; five columbite crystals from Haddam, Connecticut; and 26 tourmalines from pegmatites in New England and the eastern seaboard states. Many specimens were from localities in the American Southwest, including a native silver from the Silver District, Yuma County, Arizona, the same district in which the famous Red Cloud mine is located (I have never heard of a surviving silver from there).

Acknowledgments

My thanks to Renato Pagano, who provided much of the information used here in the description of the 1813 Malacarne book. My thanks also to Curtis Schuh, Si and Ann Frazier and Tom Moore for reviewing the above text and offering helpful suggestions. Most of the text of this article was previously published in the *Journal of the Geo-Literary Society*; my thanks to journal editors Si and Ann Frazier for permission to revise, expand and reprint it here.