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
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 18th 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 19th 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.

### Catalogs

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#### Part II

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54. [Lorenzo Yates](#) (p.82)
Gesner’s compendium (1565), containing Kentmann’s catalog.

Title page of the compendium (1565)

[1] Catalog of Johannes Kentmann (1518-1574)

KENTMANN, J. (1565) Nomenclature Rerum fossilium, que in Misnia præcipue, & in aliis 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 difficult passages. It makes interesting 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.
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,
ever 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
ever 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’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.
AMBROSINI, B. (1648) *Vlyssis Aldrovandi Patricii Bononiensis Mvsaem Metallicum in Libros IIII...* Published in Bononia (the old name for Bologna) by Jo. Baptiste Ferroni.

KELLNER, D. (1701) *Synopsis Musaei 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] *suces 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 Musei Metallici viri incomparabilis, Ulyssis Aldrovandi, omnium metallorum materiam*, published in 1701.
Catalog of Ole Worm
(1588-1654)
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)*
MOSCARDO, L. L. (1656) *Note overo memorie del Myseo 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 copy illustrated 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).

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.
GREW, N. (1681) Museum 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.
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.