

Article

Organize Your Collection...Please!

A well-organized collection not only looks professional and presentable, but also serves to preserve the integrity and relationship of the individual specimens one to another. As in a society of people, where we all have our role as individuals, but contribute to the benefit of the whole, a collection of minerals likewise should be comprised of individual samples that together are qualified representatives of the entire discipline. A haphazard and jumbled collection presents the collector as nothing more than an amateurish and irresponsible hoarder who commands little respect—and rightfully so—from genuine aficionados...be they collectors, dealers, or scientists.

An incompetent amassing of such specimens leaves them with no real purpose or significant distinction. They are neither organized nor have any scientific value. And without being catalogued and labeled, it is very easy to misplace a specimen, or completely forget what it is!

What then, should a new or formerly cluttered collector do to get organized?

Types of Collections

First, decide what kind of collection you actually have or want to acquire. As with all human endeavors, collections can be as varied and specialized as the collectors themselves. One may be inclined to collect any specimen simply because it's pretty, but most people have more discerning tastes, and may choose to focus on certain types of collections depending on such factors as personal interest, cost of specimens, limitations of space, and so forth.



Naturally, cabinet specimens—generally fist size and larger—cost more and require more space than a collection of smaller specimens. The tradeoff is they are very impressive to display! In contrast, a micromount collection, though harder to appreciate in a macro sense, takes up very little room—a significant collection of specimens can be stored in a small cabinet—but can still provide a lifetime of enjoyment when viewed under a microscope.

The types of collections can be as eclectic as the

specimens that comprise them. Depending on preference and financial station, one may choose to focus on collecting specimens according to size, such as cabinet or micromount as mentioned above, display (say, about 2 inches to fist size), or thumbnail. Collections can also be more specialized, concentrating on such physical characteristics as color, crystal class, and fluorescence; or perhaps chemical in nature, such as organics, pseudomorphs, and elemental constituents (e.g. lead, copper, zinc, sulphate, carbonate, etc.); or even specific species, such as an extensive array of calcite or quartz specimens. Most likely, in fact inevitably, you will find yourself with specimens from each of these examples. *Starting* with an organized approach is a lot easier than *getting* organized later on!

Group by Class

Using my collections as a reference, I recommend you first arrange your specimens according to chemical class, starting with native elements, then progressing to sulfides and sulfosalts, oxides and hydroxides, halides, carbonates, nitrates, borates, sulfates, phosphates, vanadates, arsenates, tungstates, molybdates, and chromates. Chromates are often included with the sulfates due to similar chemistry; likewise, the phosphates, vanadates, and arsenates are grouped together. However, there are enough specimens to be collected in each category to justify separating them into their own groups, which will facilitate finding individual specimens much easier. The last chemical group is the silicates, which I've divided into nesosilicates, sorosilicates, inosilicates, cyclosilicates, phyllosilicates, and tectosilicates. As this is such a large group, I display them separately on the opposite side of my "museum" room.



Section of silicate mineral display arranged by sub-groups:

Top left to right: Nesosilicates, Sorosilicates, Cyclosilicates

Middle left to right: Inosilicates to Phyllosilicates

Bottom: Tectosilicates (zeolites, feldspars, quartz, et al)

Shelves are 8' x 12" obtained at Home Depot

Boxes were originally from Duracell battery displays that I salvaged from a retail store as the product sold out. I simply spray painted them gold and placed reflective plastic pieces in some of the sections. An example of creative *re-purposing*!



Section of ore mineral display arranged by sub-groups:

Top left to right: Natives, Sulfides, Sulfosalts, Oxides, Hydroxides

Bottom: Carbonates (a very large group that takes up a whole shelf)

Below the picture the collection continues with another very large group that requires a whole shelf, the Sulfates.

It is important to note that arranging by chemical class does have one significant drawback...the amateur collector must achieve at least a minimal degree of mineralogical acumen! When a visitor asks you to produce a certain species, it can be quite daunting to remember where in your collection such a specimen resides, if you don't have a good understanding of mineral chemistry—especially for very large collections!

Regardless of the system chosen, once the subset that a new acquisition falls under is decided upon, the specimen must be properly catalogued. This means entering it into some sort of catalogue system, then labeling it.

Catalogue and Label

The catalogue can be as simple as file cards in a box, or something far more concise as a specialized software program. Before the advent of computers, I devised a rather mundane file card system, which worked quite nicely. On each card I entered a number I assigned to each specimen, along with its name, group, chemical formula, location from where it was collected, geologic environment, and any associates. In another section on the card I entered its physical characteristics (i.e. color, streak, luster, hardness, habit, cleavage, fracture, tenacity, magnetism, decrepitation, specific gravity, crystal class, etc.—not all blanks were necessarily filled in; just the ones I was able to identify). In the final section I noted any reactions to chemical tests I performed. Finally, if a specimen was purchased, I recorded the price I paid and where obtained.

In the more modern world, I transposed my filing system to computer files I devised on my own. Having been a professional writer and graphic artist in previous lives, this was right up my alley. I used QuarkXPress—which I still use today—to design my records based on the file card system I already had in place. One

As a note, I've tried dedicated software programs designed specifically for mineral collecting. Personally, I find them to be too restrictive for my preference. However, for those of you who are not graphic artists and are not comfortable with page-design programs, a catalogue program will be

CATALOG NUMBER
XII 07 C.D.S.R.

NAME: CALCIOVOLBORTHITE GROUP: CaCu(VO₄)OH
VARIETY: (AKA TANGEITE) FORMULA: CaCu(VO₄)OH
LOCATION: Goffs, Ca., Leiser Ray Mine CLASS: Vanadate
ENVIRONMENT: OXIDATION ZONE, QUARTZ VEIN
ASSOCIATES: ADJACENT w/ MOTTRILITE, QUARTZ

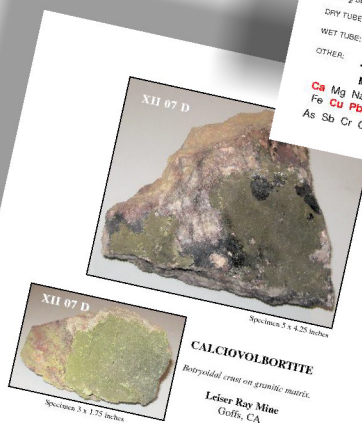
PHYSICAL TESTS
COLOR: OLIVE GREEN SOL: H₂NO₃ FUSN: FLU. (SCH. C)
HABIT: CRISTY PLATE, EMB BEAD: FLU. (SCH. C) FLAME: FLU. (SCH. C)
CLEAVAGE: CRISTY PLATE, EMB DRY TUBE: FLU. (SCH. C)
MAGNETISM: CRISTY PLATE, EMB WET TUBE: FLU. (SCH. C)
DECREPITATION: CRISTY PLATE, EMB METALCATIONS: Fe Ca Na Mg Co Pb K Zn
FRACTURE: CRISTY PLATE, EMB RADICAL ANIONS: S C Cl Br I F Te O PO SO CO OH BO NO VO WO LO CO MoO A
OTHER: CRISTY PLATE, EMB TIO SIO

CHEMICAL TESTS
SOL: H₂NO₃ FUSN: FLU. (SCH. C)
BEAD: FLU. (SCH. C) FLAME: FLU. (SCH. C)
DRY TUBE: FLU. (SCH. C) WET TUBE: FLU. (SCH. C)

METALCATION
Ca Mg Na K Sr Ba Li Al Si Be Fe Cu Pb Zn Mn Au Ag Ni Sn As Sb Cr Co Cd Mo Hg Ti Bi U

RADICAL ANION
C S O OH Cl Br I F Te CO NO BO SO AsO PO VO WO LO CO MoO TIO SIO

original file card



CATALOGUE NUMBER
XII 07 C.D.S.R.
CaCu(VO₄)OH

NAME: CALCIOVOLBORTHITE VARIETY: aka Tangeite
GROUP: Vanadate CLASS: Vanadate
LOCATION: Leiser Ray Mine, Goffs, CA
ENVIRONMENT: oxidation zone in quartz vein
ASSOCIATES: admitted with mottramite and quartz

PHYSICAL TESTS
CRYSTAL CLASS: Orthorhombic
COLOR: olive green LUSTER: sub lustrous STREAK: olive green
HABIT: crystalline FRACTURE: irregular TENACITY: brittle
CLEAVAGE: irregular DEPREPATION: irregular SPECIFIC GRAVITY: 4.25
MAGNETISM: none DIAPHRANEITY: opaque REFRACTIVE INDEX: 1.75
FLUORESCENCE: none

CHEMICAL TESTS
SOLUBILITY: soluble FUSIBILITY: easy FLAME: blue-green (OH)
BORAX BEAD: blue-green (OH)
NACLO₂ BEAD: blue-green (OH)
DRY TUBE: blue-green (OH)
WET TUBE: blue-green (OH)

METALCATION
Ca Mg Na K Sr Ba Li Al Si Be Fe Cu Pb Zn Mn Au Ag Ni Sn As Sb Cr Co Cd Mo Hg Ti Bi U

RADICAL ANION
C S O OH Cl Br I F Te CO NO BO SO AsO PO VO WO LO CO MoO TIO SIO

QuarkXPress files showing
information on first page,
and photos on second page

color of dot represents rarity of specimen:

green = very common yellow = common
orange = rare red = very rare

perfect for you. Try out “Rock Collector” from **Data Village** (www.datavillage.com) or “Gemstone Database” from **Database Base** (contact Joe Bugeja at bugs007@optusnet.com.au). Both are cheap and user friendly.

Of course, every specimen must have an identifying code on it that matches its card file. For specimens with a flat, unimportant area suitable for the purpose, I paint a strip of White-Out long enough to accommodate the ID number written with a medium-point Sharpie or other similar permanent marker. For specimens that have no such area, or are too delicate for direct labeling, I place them in a display box with either a sticky label attached or the White-Out strip painted on it rather than the specimen itself.

Throughout the journal, you will notice the number I assigned to each specimen in photographs that accompany the texts. These 3-part numbers denote the *class* in roman numerals, *numerical order* of the specimen in that class, and the *collection* the specimen can be found in (C for Cabinet, D for Display, S for Study, T for Thumbnail, M for Micromount, or X for Experiment, that is, pieces I use to perform confirmatory tests on; specialized collections include F for Fluorescents, P for Pseudomorphs, FL for Floaters; Pt for elements in my Periodic Table collection, and G for Gemstones). From this filing system, it should be immediately obvious that all my specimens are arranged in numerous different collections—separate, but contributing to the whole.

Collections are routinely passed on from one generation to another, or are bequeathed to museums or other such places of permanent residence. Proper labeling and cataloguing ensures that specimens do not become lost, forgotten, or misidentified by subsequent owners.

Display and Storage

Finally, what’s the point of having a collection if it’s not out on display for visitors to appreciate? But, how to arrange it?

Collections can be arranged and displayed in any number of ways. If done in alphabetical order, any specimen can be found quite quickly when called for examination. Assuming a collection is not intended to be of any scientific merit, this assembly can be quite convenient and easy to



Specimen of Manganosiderite from the Pan American Mine, Comet District, Pioche, NV

bottom photo shows its catalogue number, in this case the specimen is found in the *Carbonate* section (VII), is the 44th entry, and is part of the *Cabinet* collection



THE CORUNDUM SPECIMEN ON THE LEFT HAD NO SMOOTH SURFACE TO PAINT A LABEL STRIP, SO THE CATALOGUE NUMBER HAD TO BE AFFIXED TO THE INSIDE OF THE DISPLAY BOX. THE AZURITE AND GRAPHITE THUMBNAILS TO THE RIGHT WERE TOO SMALL FOR THE LABEL, SO IT HAD TO BE PAINTED ON THE ACRYLIC CUBES. ONLY DRAWBACK HERE IS THAT ON OCCASIONS WHILE MOVING SUCH SPECIMENS CAN COME DETACHED AND BE MISPLACED!



orchestrate. Other arrangements include grouping by locality, mineral groups (garnets, tourmalines, beryls, feldspars, quartz, zeolites, et al), geologic environment (contact or regional metamorphic, pegmatite, hydrothermal, volcanic, etc.), base-metal ores, and so forth. However you choose, specimens should be exhibited in their best presentation.

The bulk of my collections are displayed the same as they're catalogued... by chemical class. However, my glass display cases are the residences of the showiest, most vibrant, and colorful representatives, regardless of category. For collectors of modest means, glass display cases can be *very* expensive. But, luck favors the prepared mind! I once met someone who had a business that he eventually had to close. From that store he kept two 5-foot long, 3-shelf glass cases with lighting, which he kept in his garage... unused. Eventually, his wife intended to reclaim the garage for her car and insisted that he get rid of those cases. I was willing to help him out; I paid him a whopping \$50 for the two!

In another instance, a manager of a storage facility, whom I knew personally, was cleaning out a unit in which stood a 7-foot-tall, 5-shelf, 6-light, full-glass Lenox display case left behind by the previous owners who either had no room in the moving truck to accommodate it, or simply no longer wanted it. Jokingly, I offered the manager twenty bucks to take it off his hands. He responded by saying he wouldn't take less than fifty. I couldn't get my wallet out fast enough!

These are two instances where I acquired display cases worth many, many hundreds of dollars simply by being in the right place at the right time, and with the minimal amount of money I needed to secure them. Opportunities are out there. Garage sales, flea markets, Craigslist ads, and companies going out of business are only a few of the ways fine cases can be obtained. Keep you eyes open at all times.



One of two glass display cases I obtained for \$50!

Meanwhile, inexpensive simple shelving one can get at the local lumber yard or home improvement store can serve the purpose quite nicely. And while acrylic display stands look nice, their cost can add up quickly; other economical options abound. I like the green bricks of Styrofoam available in the Arts & Crafts section in Walmart; they're cheap, and look nice. Walmart also has air-tight jars that are handy for storing and displaying such environment-sensitive species as chalcantite, melanterite, epsomite, copiapite, and boothite.

I obtain ¾-inch cubes from a local plastics shop, which I use to set smaller specimens on. I've even re-purposed the little plastic stands that used to come in pizza boxes to keep the top from contacting the cheese! They can be a bit wobbly, but serve nicely for lighter specimens. I buy perky boxes and small candy display boxes online. The *pebblepeddler* has these for sale on eBay. Also check out www.misterplexi.com. Rock and mineral shops and trade shows are good places to get other ideas.

The point is, for those of us with tight finances—including myself—creativity is the key. By any means possible or economically viable, your precious mineral specimens need to be catalogued, labeled, stored, and proudly displayed for others to appreciate.



Bookshelves like this one from Walmart are cheap (\$25), and are excellent for displaying your large specimens.



Almost as valuable as the minerals it houses, this Lenox display case was acquired second hand for only \$50!



This 16.25" x 14.25" x 2"

in brown or black from HarrietCarter.com is inexpensive (\$20), and has the perfect size cubby holes to fit 2.5" x 1.63" x 1.63" plastic display cases.

Shot Glass Curio in



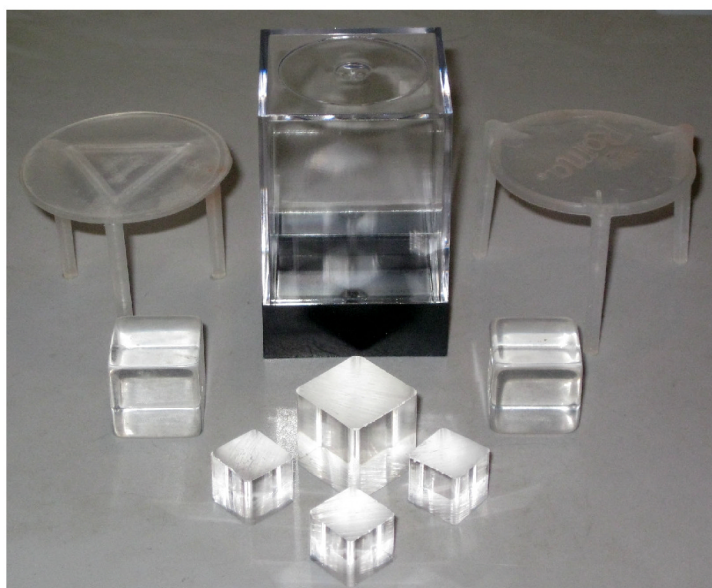
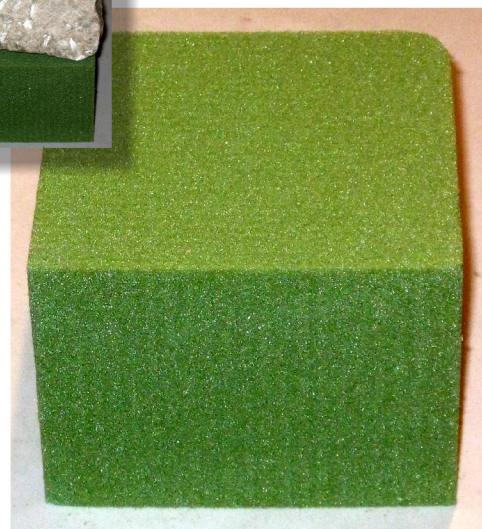
A variety of inexpensive display options are readily available to help make any collection look presentable.



Brown version of the same Shot Glass Curio shown on previous page, only this one has been filled with plastic display cases to demonstrate the nice fit.



Air-tight jars such as the ones on the top shelf will protect climate-sensitive specimens such as chalcantite and melanterite from drying out. Styrofoam bricks on the bottom shelf serve well as decorative display stands.



These are just a sampling of the many objects that can be used to display your mineral specimens.