

BOOK REVIEW

The Photo-Atlas of Minerals: Version 2.0 (DVD-ROM). The Gem & Mineral Council of the Los Angeles County Museum of Natural History. (2006) \$59.95 (\$39.95 upgrade).

The *Photo-Atlas* is a ready reference guide to over 4100 mineral species, with attractive photographs for 1700 of them. Compared to the original version, this upgrade more than doubles both the number of minerals with associated images and the total number of photographs. If this is not enough, the user can add his or her own photos to the database. Also new are the drawings of crystal habits and atomic structures created from the JCrystal and XtalDraw programs, respectively, for the more common minerals. And web links provide sources of additional information.

Use of the *Photo-Atlas* requires a 600 MHz Pentium 3 PC with 192 MB RAM and 5 GB of available hard disk space, Windows 2000 Professional with SP4 or higher, a DVD-ROM drive, a sound card, and 24-bit color at 1024 × 768 resolution. Although the software can be run off the DVD, some of the features will not function so I recommend installing it on your hard drive. I had no problems with installation, but it did take over 6 hours to download. Once installed, a few features may not function properly because of default settings on your computer. Click on the “Instructions” tab in the home menu to find out how to make the necessary adjustments. Updates to version 2.0 are posted on the *Photo-Atlas* website and downloading version 2.03 proved simple and fast. On their website, the *Photo-Atlas* authors recognize that Mac users may be disheartened. They suggest trying a PC emulation program but do not indicate whether they have been able to run the program successfully on a Mac.

The main attraction is the data page for each mineral where a link to a thumbnail photo gallery provides access to all the photos for a species. The photos are jpegs with high resolution at small size. Any photograph of any mineral can be bookmarked to compare with at most 3 other images at the same time, or the user can select an unlimited number of photographs to create a slide show.

The authors clearly responded to George Harlow’s review (1999) by providing more photographs and for more species. Moreover, while version 1.0 of the *Photo-Atlas* relied heavily on just 2 photographers, those photos are now supplemented by the work of 28 additional photographers. Of these, about 15 provide the lion’s share of images. The photographs are of the high quality anticipated for such a publication and typically show examples of well-formed crystals such as would interest collectors. Some photos of micromounts have focus problems resulting from a short depth of field. In these cases it might be helpful to have supplementary SEM images to show the crystal habit more clearly. In a few cases there is some redundancy in the images. For example, the *Photo-Atlas* has 14 images of bixbite

in matrix from the Wah Wah Mountains of Utah. They are not substantially different, so fewer would suffice.

After the photographs themselves, the captions are the next most important feature of a work of this kind. The *Photo-Atlas* captions provide the mineral name, locality, photographer, owner and, in about three-quarters of the cases, some description of the size. This is the essential information, but I would be interested in learning a little bit more about why a given photograph is included. Why is the locality notable or what is the occurrence in this locality? Is the habit shown typical or unusual? Are there some diagnostic features that show particularly well? In some cases a mineral is shown as part of an assemblage, and so it would be helpful to have the caption clearly point out the mineral of interest.

The *Photo-Atlas* is more than just a “coffee table” resource, providing a chemical formula, general information, crystallographic data, and physical and optical properties for each mineral. The audio button lets you hear the mineral name pronounced, which I expect could be really helpful to the novice and even to the professional for less common species. However, in cases where there are acceptable variants only one pronunciation is provided. In version 1.0, technical terms in the text are highlighted and link directly to a glossary entry. Accessing the glossary in the upgraded version is a bit more cumbersome since there are no direct links. As part of the general information for each mineral, the Strunz and Dana classifications are provided. Since there are no hyperlinks from numbers like 9.AI (Strunz) or 71.1.3.2 (Dana) to a classification glossary for either, I find their inclusion not very helpful. I would prefer instead a descriptive classification (nesosilicate with hydroxyl group) and a structural formula for those of us more familiar with Zoltai’s (1960) classification of tetrahedral structures. In lieu of the structural formula, the more common minerals do have links to a crystal structure drawing, which the user can manipulate to view from different perspectives.

Navigating the software is relatively straightforward and, as in version 1.0, there are several ways to sort the data and search for minerals. A few additional sorting criteria have been added. For example, by searching on photographer Anthony R. Kampf, I was able to find photos of specimens from the LA County Museum of Natural History. Another handy feature allows a collector trying to identify a mineral to select several criteria simultaneously to help narrow the possibilities. I encountered a few minor inconveniences while using the program. The search criteria only apply to IMA-approved mineral names. If the user cannot find a given mineral, he or she must access a separate menu tree that includes unapproved synonyms. Occasionally I managed to bump myself out of the program because I wasn’t paying attention to whether or not a new window had been opened after clicking on a link.

The *Photo-Atlas* is a great resource for collectors with its beautiful mineral photos that show the variations of habit and color from different localities. It could also be useful to educators, although some of the features limit the extent of its use. The photos commonly show canonical crystal habits and aesthetic specimens rather than the garden-variety mineral grains that students are more likely to encounter. The slide show is an interesting feature, but it cannot be adapted to include the crystal habit or structure drawings or other data the lecturer may wish to incorporate. I like the idea of a mineral identification game and wish that the authors had modified it after seeing Harlow's (1999) review.

When I began this review I didn't see myself using the atlas, but I have since changed my mind and am glad to have it on the same laptop we use for collection work. In smaller museums where staff are responsible for a diverse natural history collection and have different areas of expertise or years of experience, the

Photo-Atlas is a useful adjunct, particularly for corroborating identifications. Not all of us carry around a mental image of hydroxylherderite and its properties.

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