

GeoDIL

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GeoDIL (Geoscience Digital Image Library) is a Web-based library of images related to the Earth sciences. This digital image library is intended for use by K-20 educators, students, researchers, and the general public. GeoDIL is a visual learning environment that provides an opportunity for excitement concerning the features and processes of the geosciences. It is a community-based library that will grow as more images are added by people at the University of North Dakota (UND) and others who wish to see their high-quality slides and print photos made available to the public. GeoDIL may be searched in a variety of ways and images may be downloaded for viewing remote from the Web. GeoDIL is accessible at <http://www.geodil.com>.

Our aim is to create a digital resource that will "... serve educators and students of all types, at all grade levels, and in all locations..." (Digital Library for Earth Science Education, DLESE, 1999). Library design and programming have been major challenges for the past 16 months, but most of the standard features are now finalized. We are currently focusing the bulk of our effort on building library holdings.

To be successful, our library must contain a large number of useful and exciting photos. The collection is small at present, numbering around 3,000 images. As the collection grows, educators and researchers around the globe will have access to a wealth of well-documented visual information that otherwise would be unavailable to them. We anticipate having about 10,000 images in the library within the next few years.

High-quality images are essential to GeoDIL's usefulness and attractiveness. We are especially interested in having images of high resolution (a slide 4x6-inch image between 4 and 6 Mb). Our software can convert the original image type (we format in TIFF) to different image resolutions as necessary for use in GeoDIL (e.g., thumbnail, standard, projection, and large). As beautiful as the images are, however, they will only be useful if they are accompanied by supporting documentation (metadata). Pretty pictures without provenance or description are just that, artifacts for calendar use, and have no place in the GeoDIL collection. The supporting data are the most essential and ultimately unique part of our database. The combination of digital images and associated metadata allow the database to be effectively searched beyond the initial interests of the photographer.

GeoDIL is designed so that users can easily find images of interest. Users can browse library holdings by categories, such as minerals, structural geology, and geologic time. They can also find images by GeoDIL number, contributor (institutional) number, and by keywords. More complicated searches involve word strings in any of the data fields or words in different

fields. Search results are returned as lists of titles or thumbnail images with titles, depending on the user's specifications. Users then click on titles or thumbnails to see images, captions, and other information displayed in a larger format.

We presently have five student GeoDIL librarians and we envisage employing students in this role in the future. Scanning images and entering them in the data base can be slow, but evaluating them and making sure they are accompanied by the necessary supporting data is even slower. We spend 20%-30% of our time during the school year on this project, and will spend one to two months during the summer. Our goal of 10,000 images in four years is ambitious and is based on estimates of the time it will take us to review and evaluate potential library holdings.

We intend GeoDIL to be a community image library. A special feature of GeoDIL is that anyone with a digital image and a connection to the Web can add images to the collection. We have developed a "submission" page that guides contributors through the process of submitting an image and the necessary supporting information. Users enter data using standard Web-based input fields (drop-down menus, radio buttons, check boxes, text fields, etc.) and upload the data using a browse button typical of software programs. We are notified of a recent submission to GeoDIL and evaluate it (for appropriateness) before it becomes part of our public holdings. During the evaluation period, contributors have the opportunity to edit the image or data, but after a contribution becomes public only library administrators can make such changes. Those who provide images to GeoDIL maintain the copyright and the contributors' names, unless they request otherwise, are given whenever someone loads an image. An additional feature of GeoDIL is that anyone can submit a comment about an image. An e-mail link to us is provided with each image. Users can make suggestions in regard to the metadata to improve the educational value of the image.

GeoDIL is a work in progress, but you can access it by going to <http://www.geodil.com>. Please feel free to add photos to GeoDIL and we welcome user feedback. In the near future we will provide users with the capability of virtual carousels to organize presentations or topics of interest and down the road we wish to incorporate a geospatial component were images can be searched by map view.

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