

EXPLORING NEW PARTNERSHIPS

Information Center for Ropeway Studies and Associated Wire Rope Fabricators

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Establishment of the Ropeway Center

In 1991, the Information Center for Ropeway Studies was established at the Arthur Lakes Library on the Colorado School of Mines (CSM) campus. It began, first, as an information center to support a research function in the CSM Engineering Division that never quite got off the ground. The Information Center should by all rights have faded when the Engineering Division withdrew its support from that research effort; however, the Center was a collection whose time had come. The core development collection of the Center was the working library of a newly retired ropeway engineer, named Charles F. Dwyer, P.E.

During his career, Chuck worked for Heron Engineering; he ended his career with the U. S. Forest Service evaluating proposed installations and providing regulatory oversight. It is important to know that Chuck is an internationally known and respected engineer; he was instrumental in the B 77 ANSI standard development for ropeway safety. While Chuck is now in his early 80s, he remains active in the field both as a volunteer in the Center and as a member of the Center's Advisory Board. For several years prior to 1991, Chuck had become concerned that individuals who had been instrumental in building ropeways, applying safety measures, operating systems, and doing maintenance were dying or becoming incapacitated. Thus, the corporate and/or cultural history of ropeways was disappearing. New people entering the profession had no good opportunity to learn from past mistakes, understand ropeway history, and learn about the rich corporate knowledge surrounding ropeways. As Chuck said, "How can you appreciate where you are going if you don't know where you've come from?" And so the Center began in earnest.

Growth of the Center

Chuck's working library of theory, design, regulation, operation, and history of ropeway systems provided the backbone of the Center. Because of its history with the mining industry and material tramways at the turn of the century, the Arthur Lakes Library added historical depth to the Center. This historical information was gleaned primarily from the Russell L. and Lyn wood Mining History Archive. The Arthur Lakes Library additionally adds state of the art information on mining technology, steel research and manufacturing methods and materials.

Staff expertise within the Library allowed a specialty database to be built just for the subject of ropeways. More information about the ROPEWAY Database will be presented later. Once the Center had a presence on the WWW, the World began to knock on the door. First, in 1992, OITAF-NACS (International Organization for Transportation by Rope, North American Continent Section) began to support the Center by providing funding for journal subscriptions. OITAF-NACS support has continued every year since then. Second, other collections began to arrive: for instance, a collection of materials, mostly manufacturers' catalogs, came from Robert Diener, a talented and much sought-after rope splicer; materials and computer programs from Vernon Kelsey, an mathematician who worked on catenary equations; the working library of Casper Meals, a wire rope engineer, was given by his son William D. Meals; and the project files of Bob Heron, ropeway engineer, included information from the 10th Mountain Division's use of ropeways during WWII as well as information about some of the first ski lifts in Colorado, the Rocky Mountains, and other parts of the United States. A beloved member of the ropeway industry, Bob Ficker, general manager of the Palm Springs Aerial Tramway and a rope splicer, passed away suddenly and his family designated the Center for bequests. Generous memorials in honor and memory of Bob Ficker supported: travel to conferences for presentation of papers highlighting the Center; appointment upgrades; and increased technology support for the Center. State grant money and some Colorado School of Mines funding allowed digitization of unique historical photographs, some of which are ropeway-related. Without these additional funds, projects to explore the potentials of digitization are difficult to get off the ground.

Uniqueness of the Information Center

The Information Center for Ropeway Studies continues to be unique as there are no other specialized information centers on this subject in the United States, although there are two other publicly accessible collections of wire rope and ropeway information in the world: one is at ETH (Eidgenuesslsche Technische Hochschule) in Zurich, Switzerland, and the other is in the engineering department of the University of Reading in Reading, England. O.I. P. E. E. C. (International Organization for the Study of the Endurance of Wire Rope) asked me to consult with a the working group assigned to making a database with the information at ETH. It is a fine database but only some of the working collection of Gabor Oplatka, a world-renowned ropeway engineer and forensic specialist, is loaded into the database. They continue to seek funding to complete this project. The information at Reading is not accessible via database. Other libraries will contain small holdings of particular aspects of the subject but finding them can be tedious and difficult.

The Center collection has grown to include more than 3,500 items on the history, theory, design, and operation of ropeway systems. It holds approximately 500 monographs, including handbooks, technical reports, symposia and conference proceedings, and manuscripts; 28 serial titles, including nine active subscriptions; manufacturers' catalog file; a reprint file; videos; slides; and photographs. E-mail messages

arrive from around the World with questions regarding ropeway information. The individuals asking these questions will probably never have the opportunity to walk in the door of the Arthur Lakes Library to use the Center; however, they are able to walk through the Center's virtual door.

At the time the Center was being formed, significant developments were occurring in information technology that allowed users to access library information via databases reachable through the Internet. These ubiquitous online catalogs provide a searchable interface through which users can identify materials of interest. The Center's book and serial titles are publicly accessible in the Library's conventional online catalog, CATALYST, at <http://catalyst.coalliance.org>. The collection is physically accessible to the public, and copies may be provided through interlibrary loan. Reference Librarians are available to assist users in discovery and access.

The ROPEWAY Database

One priority of the Center is to have ropeway information accessible in greater depth than a conventional online catalog typically provides. As a consequence, in the early 1990's, a specialized ROPEWAY Database was developed. This comprehensive and expansive database contained highly detailed citations that described materials found not only at the CSM Information Center for Ropeway Studies, but also ropeway systems collections at other locations. Distinctive sub-collections added to the database since its creation include the longest journal run of *Internationale Seilbahn Rundschau* at any U.S. library, early shop drawings of material tramways from the A. Leschen & Sons Rope Company, full-text articles from The Engineering and Mining Journal, and a selection of lantern slides of ropeways from the turn of the century.

In 2002, the ROPEWAY Database was inclusively converted to a state of the art library information system (called Voyager) maintained by the Colorado Alliance of Research Libraries. Benefits of this conversion include enhanced search and discovery functions, the capacity to provide hyperlinks to external documents and other resources, and standardization of the database into an internationally accepted format that ensures the long-term continued existence of the information as well as facilitates importing of records from recognized sources.

The ROPEWAY Database is a bibliographic database of ropeway systems, covering journal articles, symposia and conference proceedings, books, reports, handbooks, manufacturers' catalogs, and any print or media information publicly available. As indicated previously, ROPEWAY Database records present far more depth and breadth than the data found in the Library's conventional on-line catalog. It provides the user with enhanced records that contain detailed abstracts, expert-assigned keywords, some

full-text articles, comprehensive conference information, and other information that allow for precise searching and exact identification.

Searching the ROPEWAY Database from your Desk

To begin a search, go to <http://ropeway.coalliance.org> and click on one of two search options: basic search or custom search.

To perform a basic search, specify the search terms and the type of search (keyword, author browse, title browse or subject browse) in the dialog boxes. Use the basic search to:

- Search by the item's exact title or by the first few words of the title;
- Browse by an author's list of works or by subject heading;
- Generate a relevancy listing;
- Combine search terms.

A custom search locates records using keywords positioned in specific fields such as author, subject or title field, or anywhere in the record. Use the custom search to:

- Search for keywords within a title when the title is not precisely known;
- Combine different fields in a search such as author and title, or author and subject.

Search Results

Most searches result in a list of titles. The exception is author and subject browse searches from the basic search screen, which result in browse lists. In the case of title lists, the user can click on the hyper-linked list entry to go directly to an item record. In the case of browse lists, the number of titles associated with each name or subject is displayed.

Item Records

Individual item records can be displayed in citation or staff view. Citation view provides all the information associated with the record, including author, title, language, meeting information and abstract. Some fields are hyper-linked: clicking on a hyperlink leads to other similar records (if the hyperlink is an author or keyword), or to the on-line resource (if available). Staff view provides the record in database format and is used by librarians.

Search Limits

If a search results in too many results, the “Quick Limits by Date” drop-down menu or the “Set Limits” button can be used to limit searches by publication date or by language.

Output Options

Multiple records from a title list can be selected, and then e-mailed, saved to disk, or printed using the “Save Options” dialog box at the bottom of the screen. The user can also print, save or e-mail a single item record.

Search History

The search history is a record of the searches performed during a session. The user can edit and/or resubmit earlier searches from this list. To view session searches click on the “History” button at the top of the screen.

Need Help?

At any time click on the “Help” button at the top of the screen.

Upcoming Database Developments

A benefit to migrating the ROPEWAY Database to Voyager not mentioned above is that the software is constantly being improved. At least twice a year new versions of the Voyager are released. Our expectation is that the quality of the interface will continue to improve with new features and functions. Additional access to Center holdings is expected in 2004, when records that are in the library’s main database will be loaded into a union catalog of 16 libraries in Colorado and Wyoming.

The Ropeway Center Website

The Center’s website (www.mines.edu/library/ropeway) includes informational documents, like “About Ropeways,” digitized photographs of early materials ropeways, a listing of relevant dissertations from the United States and abroad, news about upcoming conferences, access to and a user guide for the ROPEWAY Database, and a page soliciting materials donations.

The Future is Digital

As the cost of high quality scanning equipment dwindles and the Internet’s reputation as an academic tool grows, the digitization of precious resources becomes a reality and a priority. The availability of wire rope material online benefits a far broader audience – both in academe and outside of it – than could be reached by traditional means. However, digitization is not preservation, and the intent of most major digitization projects such as the Library of Congress American Memory Collections

(<http://memory.loc.gov/ammem/>) is not to replace the original materials but to *enhance access*. Indeed, digital resources represent a significant investment that requires its own preservation: digital content is vulnerable to software and hardware obsolescence and information specialists such as librarians and archivists must make long-term commitments to keeping collections accessible.

A wide variety of original sources, including pictorial and textual materials, audio, video, maps, atlases, and sheet music can be digitized. The nature and content of the originals, the primary purposes of the digitization, the state of technology, the availability of resources, the scale of the collection, and the goals of the program must all be taken into account when defining best practices. Practices for the creation, storage and management of digital content as well as the creation, storage and management of descriptive metadata (which supports discovery through search and browse functions) must be identified. The Arthur Lakes Library staff has experience in developing strategies for creating, preserving and making accessible digital resources (for example, see Mining and Mineral Industries in the US: Photographic Perspectives at <http://www.mines.edu/library/cdp/index.html>, and the digitized version of the 1909 San Juan Placers, Gabel Mining District Papers at <http://www.mines.edu/library/archives/MHA0005.html>).

For Your Consideration

We are very pleased to have the opportunity to speak to you today. I suspect your organization has been concerned about the ability to preserve the history of your profession, organize and present the progress, discoveries, and knowledge of your profession, and store and preserve the information appropriate to your discipline. I hope that by showing you what we were able to accomplish with one small group of ropeway engineers, ideas and discussion of new partnerships possibilities may be forthcoming.

Laura and I will be happy to entertain questions at this time.