<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>What keeps me coming back?</td>
<td>2</td>
</tr>
<tr>
<td>Library Directory</td>
<td>3</td>
</tr>
<tr>
<td>Crown Jewels from the Archive</td>
<td>4</td>
</tr>
<tr>
<td>Trefny Institute Awards Mini-Grant</td>
<td>6</td>
</tr>
<tr>
<td>Making an Impact</td>
<td>8</td>
</tr>
<tr>
<td>Spring and Summer Donations</td>
<td>10</td>
</tr>
<tr>
<td>Library Happenings</td>
<td>11</td>
</tr>
<tr>
<td>Library Improvements</td>
<td>12</td>
</tr>
<tr>
<td>Student Spotlight</td>
<td>14</td>
</tr>
<tr>
<td>Staff Spotlight</td>
<td>15</td>
</tr>
</tbody>
</table>
What keeps me coming back?
by Mike Ashwood

Have you ever spent most of the summer in a library? Or used the inter-library-loan system to catch up on your movie watching? Or even studied until closing time only to come back the next morning when the library opened? I know I have. So what is it that students, including myself, see in the Arthur Lakes Library that keeps them coming back day after day?

For me, it’s the curiosity of learning (not to sound cliché, of course). I’ve always been fascinated by the vast amount of information stored in so many small, bound pieces of paper. I grew up in a small town where the library was one of the coolest places to be in the summer. So being surrounded by books has always been a favorite pastime of mine.

But the Arthur Lakes Library offers so much more than just knowledge to discover. In my experience, it’s been a place to study, hang out with friends, sleep, and conduct meetings and interviews, not to mention it being a researcher’s heaven. It can even be a place to work and earn a little money, if you’re like me.

For most students, the Library is a place to finish worksheets and papers so they achieve good grades and pass classes. Some leave the shelves with the skills that will help them throughout their careers. But those special few who take the time to explore and understand the Library have left with an ever-expanding, open mind that will stay with them far into the end of their lives.

Not only does the Library help increase your mental capacity, but it can help develop a sense of family and bonding with those around you. After working in Arthur Lakes for almost a year, I can say that everyone in the Library, including those volunteering, has welcomed me into their lives. I truly wish that everyone could find those kinds of welcoming people in their jobs.

Perhaps you will never step foot into another library ever again, or maybe you’ll be back tomorrow. Either way, you know that the Arthur Lakes Library will always be here waiting for that next student to walk in the door, yearning for knowledge.
from the archive

Assaying Theory and Practice

by Cathy Van Tassel

Cramer, Johann Andreas, 1710-1777

*Elements of the Art of Assaying Metals In Two Parts. The First Containing The Theory, The Second Containing The Practice of the Said Art: The whole deduced from the true properties and nature of fossils, confirmed by the most accurate and unquestionable experiments, explained in a natural order, and with the utmost clearness.

With notes and observations not in the original particularly useful to the English reader by Cromwell Mortimer

London: L. Davis and C. Reymers


Thanks to the generous endowments for special collections given by: Russell L. & Lyn Wood; Stanley & Judy Dempsey; and the Society of Mining Law Antiquarians/Rocky Mountain Mineral Law Foundation, the Arthur Lakes Library is able to acquire materials which significantly add to our holdings in the Russell L. and Lyn Wood Mining History Archive.

The theory and practical experiments presented in the *Elements of the Art of Assaying Metals* were first compiled to serve as materials for a course of lectures and experiments given in 1737 in Leyden, Germany. Originally written in Latin, Cramer’s first English edition was published in 1741. The Advertisement for the Second Edition, (p. A2) indicates the information contained in the text was the result of collaborative study, observation and experimentation by scientists gathered at the University of Leyden. “If any thing can be added to the high reputation of this work, it must be the knowledge of its having been composed under the direction and patronage of men so distinguished for their knowledge in natural history, and in every branch of the chemical arts.” (p. A2) Produced in 1764, the second edition was issued with corrections and an expanded list of English authors who were writing on the subject of minerals and metals. The list provided is a descriptive bibliography of books written about the discovery of minerals, ore smelting and the assaying of metals.

Part One of the text consists of six chapters covering the theory of the art of assaying. In the reprinted preface to the first edition, Cramer notes that this work is chiefly for those that already have a love of chemical processes and the study of minerals; to further qualify, he indicates that his treatment of every aspect of the experiments or “processes”, as he calls them, is short. Therefore, he provides readers with theoretical discussion of the art of assaying to provide a firm foundation for those who undertake the practical part of the text. Cramer begins Part One with a definition, “assaying is the art of separating metals, semi-metals, sulphurs and mineral salts from each other, and from other bodies mix’d with them, so that it may appear, what quantity there was originally of each in the body under tryal [sic], or what benefit may be reaped from the extracting of it.” (p. 1) Interestingly, Cramer’s footnote to this definition indicates that the word assaying is, “a corruption, by the workmen, of the word Essaying, derived from the French Essayer, to try.” (p. 1, unnumbered footnote) The text continues with a description of the object of assaying. Cramer works his way through the characteristics of metals, minerals and stones and finally ends his theoretical section with a discussion of the effects and use of assaying.

Part Two of the text is comprised of 85 practical experiments - many of which refer back to applicable sections of Part One. Examples include: “Process X. The purifying of silver by lead, in a large test, by the blast of the bellow” and “Process XVIII. The separation of silver from the amalgama.[sic]” (p. xx)

new titles in the archive


Chaput, Donald, *The Cliff: America’s First Great Copper Mine*, 1971

Trefny Institute Awards Mini-Grant to the Library
by Wendy Shortridge

The John and Sharon Trefny Institute for Educational Innovation’s goals are to support and improve the educational experience at Mines. Funded by the Trefny Endowment and donations from alumni and friends, the Trefny Institute sponsors mini-grants for curriculum development, guest speakers, faculty workshops, Institute member travel, Institute research and assessment projects and stipends for undergraduate and graduate research. In spring semester 2008, the Trefny Institute awarded a mini-grant to Megan Tomeo, Reference Librarian, to add an information literacy component to the EPICS 251 classes. The goals are to increase information literacy skills for engineering students and provide research tools to promote lifelong learning.

CSM’s EPICS (Engineering Practices Introductory Course Sequence) classes provide competitive real world design experiences for students. Current projects for EPICS students to design are a Mars Lander, an energy efficient yet cost-effective modern home and an environmentally friendly power supply to feed a small, remote town in Alaska. Students learn to present and promote their designs to project sponsors in a corporate setting. Often the project sponsor implements the winning design.

Information literacy is a necessary tool for researching and developing cutting edge technology to solve the world’s environmental and engineering problems. Information literacy is defined on the Library website as “possession of the practical skills needed to locate, evaluate, and use information to support lifelong learning and development of critical thinking skills to reflect on the nature of information and its impact on society.”

In EPICS 151, students are brought to the library for an instruction session. The information literacy component in EPICS 251 will build upon this foundation. However, the delivery method is different. EPICS 251 students will complete six online tutorials that focus on finding books in the library (the review module), searching the journal literature (uses a subject specific database), finding journal articles, searching the patent literature or government literature (which one will depend upon the project), evaluating information, and citing resources. Ms. Tomeo is responsible for creating the tutorials and conducting assessment of the project.

Assessment of the online tutorials will be accomplished by surveys and examinations of the students’ bibliographies. The surveys will be given to EPICS 251 sections. One section will be required to do the tutorials and one section will not. This will help to measure the impact of the tutorials. The pre-surveys will also help to assess the information literacy skills of the students. The quality and quantity of citations in the two sections will be compared to gauge the impact of the tutorials.

There are numerous benefits to adding this instruction to the EPICS 251 classes. Employers are looking for more than engineers. They seek talented individuals who not only have technical skills and expertise but can navigate the ever increasing amount of information and communicate that information to co-workers. ABET, the accrediting body for engineering education, has seen the value in engineers as life longer learners and as a result, added criterion for accreditation on the subject. The online tutorials meet the student at their point of need and allow them to learn conveniently and at their own pace. In addition, the students can always revisit an online tutorial as needed.
Making an Impact With Each Gift
by Kathi Conner

Gifts to the Library are as unique as the people who give them, and we have giving opportunities that fit every situation. Whether it’s an annual gift to enhance the collection, a gift in honor or memory of a special person, an endowment to provide funds in perpetuity or contributions for special projects, every gift contributes to the creation of an exceptional environment for knowledge acquisition, discovery and innovation. Below, we’ve highlighted a few of the impacts donors have made since our last issue of Inside Arthur Lakes.

In 1947, when Frank Seeton graduated from Mines, the Library was housed in Guggenheim Hall. More than sixty years later, it’s plain to see that more than just the Library’s location has changed; students’ needs keep evolving as well. To help meet these needs, Frank gives to the Library for the 21st Century Fund. His 2008 gift purchased this bank of 21 keyless entry powered lockers. These lockers provide space for students (and other patrons) to safely store and recharge their electronic devices. While some things change, others don’t; Mines grads are some of the greatest people you’ll ever know!

When Ann Lerew (retired Reference Librarian) passed away in May, friends and family remembered her with memorial gifts. Thanks to their generosity, the Library purchased a Brain Storming™Table. With seating for four, the table features a 30-inch rotating dry erase board in the center. This table gives students space to study together and solve problems collaboratively. The Brain Storming™ table is the “anchor” piece from which a flexible, collaborative study space in the Reference Room is growing – in fact, students have already been overheard referring to this space as the Brain Storming Room!

The Society of Mining Law Antiquarians and the Rocky Mountain Mineral Law Foundation established an endowment to support the collection and acquisition of historic mining and mineral law materials. Our Spring edition of Inside Arthur Lakes will highlight this gift, introduce you to key members of both organizations and discuss this latest addition to the Russell L. & Lyn Wood Mining History Archive.

Contributions help make the Library a world-class source for information in the study of engineering and applied science related to the Earth, energy, materials and the environment. Contributions can be directed to:

• Donate today by using the enclosed postage paid envelope
• Donate mining papers, maps, letters, stock certificates and/or photographs
• Include the Arthur Lakes Library in your estate planning
• Make a gift to support a special project, collection or service
• Visit http://www.mines.edu/library/giving/priorities.html

You Too Can Make an Impact!

Collaborative Workstations are the top investment priority for the Library this fall. Imagine your donor dollars at work providing students workstations with ergonomic seating, multiple computer monitors, “add on” tables and portable whiteboards.

Contact us to discuss how you can impact our Library’s future...

Kathi Conner
(303) 273-3133
Kathi.Conner@is.mines.edu

Gifts at every level
# Donations March - September ‘08

**INDIVIDUAL**
- Alexis Bloomfield
- Don Brandborg
- William Calkin
- Kathi Conner
- Marion Wier DeFord
- Stanley & Judy Dempsey
- Roger Hooten
- Glenn Krum
- Joanne Lerud-Heck
- Michael & Julie Midyett
- Roger Neuscheler
- Richard Nielsen
- Randy Parcel
- Walter Powell
- M.W. “Bill” Scoggins
- Frank Seeton
- Louise Seeton  
  *in honor of Frank Seeton*
- Michael P. Thomas
- Cathy Van Tassel
- Lynn Yehle

**CORPORATE / FOUNDATION**
- Bishop Lifting Products, Inc.
- Community Foundation of Boulder County  
  *on behalf of the Tell Ertl Family Trust*
- ExxonMobil Foundation  
  *match for Glenn Krum*
- International Nuclear, Inc.  
  *on behalf of Thomas C. Pool*
- Marathon Oil Company Foundations, Inc.  
  *match for David MacKenzie*
  *match for Robert W. Meader*
- Rocky Mountain Mineral Law Foundation
- Society of Mining Law Antiquarians

**IN MEMORY OF ANN LEREW**
- Susan Bandow
- Cherry Creek Academy
- James Compton
- Kathi Conner
- Lisa Dunn
- Roger & Rosemary Hippsley
- Mark & Catherine Hogan
- Joanne Lerud-Heck
- Harriet Manning
- Charles & Marilyn Stark
- Cathy Van Tassel

Enhancement of the collections and services of the Arthur Lakes Library are made possible through generous contributions from individuals, corporations and foundations. We gratefully acknowledge these donors for their monetary gifts to the Arthur Lakes Library, given between March and September of 2008.

## What’s Happening In & Out of the Library

Rudy and Andie Davison hosted a reception in Durango for the Library. The reception featured “Treasures from the Archive” with an introduction by Library Director Joanne Lerud-Heck. Attendees got to turn the pages of a first edition De Re Metallica (1556), an inscribed and signed first edition Herbert & Lou Henry Hoover’s English translation of De Re Metallica (1912) and the unprocessed papers and ephemera of southwestern Colorado miner, John Moore.

**Photos of the Saline Tramway** and Saline Valley (Inyo Mountains, CA) from the CSM Image Database (csmphotos.coalliance.org) were used in the April ’08 *Car & Driver magazine*’s comparison test article “Homeland Security”.

We’ve strategically located 12 magnetic marker boards next to 4 – 6 person study tables in the stacks. The installation of the marker boards is a great opportunity to supply students with a tool to solve problems collaboratively, is environmentally friendly, and incorporates an immovable structure into the solution, turning a challenge into an opportunity.

CSM Academy Lectures feature CSM research and are geared towards general audiences. Join us in the Boettcher Room at 4pm for:

- **Nov 14, 2008**: Solid Oxide Fuel Cells
- **Jan 16, 2009**: Protecting our Water Supply
- **Feb 20, 2009**: The Future of Libraries
- **Mar 20, 2009**: Oil Reserves/Oil Supplies
SHED: SHift and weED

by Pam Blome

Summers are a time for the Library staff to take care of projects that have been placed on hold during the school year, but Summer of ’08 we really outdid ourselves! This summer, in an effort to create new spaces for students as well as more shelf space, the library did some major shifting—of books, shelving, furniture, and space. Every department in the library worked together to make this a huge success, sometimes pitching in to do things not normally part of their routine. With everyone working together, rather than taking months, as originally anticipated, most of the SHED (a contraction of Shift and Weed) took mere weeks to accomplish!

The library has been running low on space for several years. For this reason we implemented an ambitious weeding project removing duplicate books and outdated books that had not been checked out in more than a decade. Don’t worry we didn’t discard any treasures! If we couldn’t agree on whether a book should be kept or removed from the collection, we kept the book. Essentially, nothing was removed from our core science and technology collections; and we are replacing many of our classical literature with newer editions. This was just a first step.

The Reference Librarians have been busy removing paper indexes from their collection, now that electronic databases have become much more comprehensive in their indexing. Now there is more space for additional tables and seating for students, faculty, and other researchers in the Library’s Reference area. The shelves that had previously housed these indexes were placed in the Boettcher Room. The Boettcher Room collection was comprised of books focusing on energy, environment, and energy policy.

Occasionally, however, our users were a bit confused as to the location of a specific title and there was also some overlap with our general book collection. Therefore, it was decided to integrate the Boettcher Room books into the general collection. This meant that a huge shift of books was needed to make these changes.

Fortunately, there are companies that specialize in moving and shifting library collections. We utilized such a company. Within a few weeks, they accomplished a task that would have taken the library months to complete, if we had had to use our student-workers and staff. This physical move took a couple of weeks to accomplish and the removal of the records from our library catalog and the national union catalog, took several weeks longer. This was truly a team effort involving all departments in the Library.

Now, our general book collection begins in the Boettcher Room with books classified in Library of Congress classification system A-HD68. HD69-QD179 are on our 3rd Floor and QD180-Z are on Floor 2M.

In addition to relocating large portions of our collection, the Reference Room has done some major furniture moving. The Reference Desk is now located where they can be seen from the Library’s Circulation Desk, making them more visible to those with research questions. The Reference Room continues to evolve with the addition of more seating, tables and work areas, white boards, and the new brain-storming table.

We are pleased that our students, faculty, and other library users find our library a place conducive to study and research, as well as a place to meet with friends, have coffee, and engage in cultural activities, music, lectures and art.
Honor: hon-or [on-er] – noun 1. to regard or treat with honor or respect (Merriam-Webster).

Gifts given to the Arthur Lakes Library in honor of someone are always the right color, the right size and are deeply appreciated by both the honoree and the Library. It could be the perfect gift for the person you know who has everything.

New Collection Development Librarian

by Christine Baker

The Library is thrilled to welcome Heather Whitehead to the Collection Management department as the new Collection Development Librarian. Heather comes to us from the Reference department of the Library where she worked as one of our stellar Reference and Instruction Librarians for more than seven years.

Some of Heather’s primary responsibilities as the Collection Development Librarian include managing the acquisition of library materials, electronic products, and book orders, as well as the Library materials budget. She will continue to be a presence at the Library’s Reference Desk two hours per week and also continue to serve as the Library Liaison to the Chemistry, Chemical Engineering, and BELS departments at the Colorado School of Mines.

Prior to her arrival at the Colorado School of Mines, Heather was the Science Reference Librarian at Rensselaer Polytechnic Institute for more than seven years. She holds a B.S. in Geology from the University of Alberta and a MLIS from the University of Western Ontario. In her free time, Heather enjoys hiking in the foothills of Colorado, particularly at Red Rocks and Roxborough State Park.

Please join us in congratulating and welcoming Heather to her new position at the Library.

Jeff Parham, Super Student!

by Wendy Shortridge

What’s faster than an Intel processor, more powerful than a bullet train and able to move library furniture in a single bound? Look, up at the Circulation desk! It’s Jeff Parham, Super Student! Since fall semester 2004, Jeff has performed superhuman feats for the Library from shifting entire floors of books to repairing broken equipment and furniture. Jeff has even changed a flat tire for one of our visiting alums with back problems. There is no Library task too small or too great for Jeff’s expertise. He is a valued member of the Circulation Team.

Jeff states that meeting people at the Circulation Desk is the best part of working at the Library. He acknowledges the benefits that working at the Library have added to his college career including learning the collection and developing research skills. During the school week, Jeff can often be found working on homework in the study rooms either alone or with groups. He adds, “It’s a great place to study.”

Jeff is a senior graduating in May with a major in mechanical engineering and a minor in International Political Economy. On campus, he is a member of the Astronomy Club, Society of Automotive Engineers, American Society of Mechanical Engineers (ASME) and the CSM Democrats. He also has done undergraduate research at the Center for Space Resources for 3 years.

Outside of school, Jeff is an avid hiker, guitarist and photographer. His photographs have appeared in “High Grade”, the art and literary journal for Colorado School of Mines. This summer, Jeff and a team of 17 CSM students called the LunOrediggers built a robot from scratch to compete in the Lunar Regolith Excavation Challenge sponsored by NASA. Jeff also enjoys all aspects of automotive racing and engineering.

Jeff plans to return to his home state of Texas after graduation to work and be near friends and family. He will leave some Texas-sized shoes to fill for future student assistants.
First Edition *De Re Metallica* (1556) on the road in Durango, CO.

In keeping with environmentally friendly practices, this newsletter was printed on 100% recycled paper using vegetable-based inks. The size and mailing method were chosen to minimize waste. Using recycled fiber takes about 1.4 tons out of the landfill to produce 1.0 tons of recycled fiber. In addition, less water, fewer chemicals and less energy are required.

Please Recycle. Preserving the delicate balance of our ecology requires a commitment from all of us. Recycling is an effective way to conserve our resources and protect our environment.

Design by Medulla, a graphic design studio dedicated to providing quality services. From creative direction to artful execution, we take each project to the next level through thoughtful and completely authentic solutions. (<www.medullastudio.com>)

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