



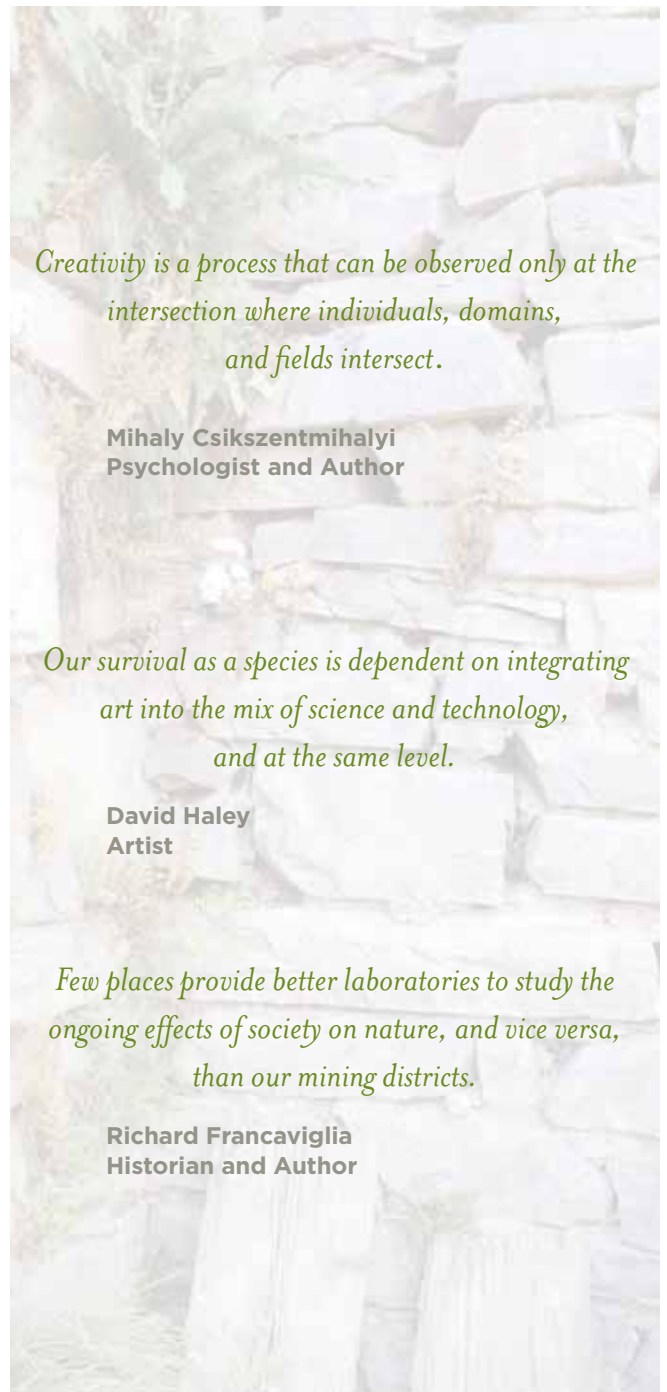
Hardrock Revision:

A Transdisciplinary Collaboration
Envisioning Uses for an Inactive Hard
Rock Mine in Hinsdale County, CO

April 2011

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Project Summary

Mining is part of the past and present of Lake City and Hinsdale County. The first settlers were men prospecting for silver in 1871. Today, the Golden Wonder gold mine, owned by LKA Enterprises, is still active. The community is currently experiencing a rift between pro- and anti-mining interests as they try to reconcile their mining heritage with their current dependence on recreation for economic viability.

LKA International, owner of the inactive Ute Ule Silver Mine, is considering donating the mine property to Hinsdale County. Located along a scenic byway high in the San Juan Mountains, the site has historical significance as well as economic, ecological, and social challenges.

The Lake City Downtown Improvement and Revitalization Team (DIRT) invited Colorado Art Ranch, a nonprofit interdisciplinary arts organization based in Colorado, to undertake a project to envision uses for the Ute Ule mine site and to help bridge the extraction-preservation schism within the community. DIRT approached Colorado Art Ranch because of its reputation for promoting the arts as a tool for creative problem solving.

The proposed project addresses the community's needs through stakeholder participation, an art-science collaboration for envisioning uses for the mine site, and a public forum of the team's collaborative recommendations.



Hardrock Revision Objectives

The project has four main objectives:

1. Stimulate open and productive discussion about possible uses for an inactive mine in Hinsdale County.
2. Foster dialogue between the mining and the environmental communities.
3. Develop guiding principles for choosing solutions to the inactive mine site that are consistent with the community's values and goals.
4. Test a model for collaboration among artists and scientists to address an ecological and social issue.

Many observers are likely to characterize mining country as a ruined, hellish wasteland, but we must remember that such was not always the case: to Americans in the late nineteenth century, mining activities symbolized progress and man's domination over nature.

Richard Francaviglia
Historian

Deliverables and Outcomes

The project will have three deliverables:

1. Team Vision. The vision may take multiple forms including a PowerPoint with guiding principles, images, concepts, and words.
2. Community Artposium. An Artposium (a public art-science symposium) will be held the final weekend of the residency. The Artposium will commence with a social event and keynote speaker on Friday evening. On Saturday the Team will present their ideas for the mine and attendees will discuss the recommendations.
3. Documentation. The results of this project will be a model for other collaborative envisioning projects. A publication and/or multimedia presentation will be created to make the information widely available.

The project will give Lake City and Hinsdale County stakeholders:

- an opportunity to interact with the Hardrock Team members
- a valuable starting point for developing a plan of use for the Ute Ulay Mine
- a non-threatening setting to discuss mining and environmental issues
- a case for protecting the heritage of the mine site

Community Involvement

When combined with strong local participation, transdisciplinary collaborations are a powerful tool for community problem solving. Residents of Hinsdale County will be involved in Hardrock Revision in the following ways.

- Two Hinsdale County residents will be chosen to be active Hardrock Revision Team members, devoting 20 or more hours per week.
- All community members will be invited to complete a survey one month prior to the project and one month after the project.
- Residents will be encouraged to provide the Hardrock Revision Team with background information about the county and issues relevant to the mine site,
- Community members will be invited to volunteer as a

Science and Art are two twins of awe.

Jackie Brookner
Artist



The very act of creation in science involves the combination and recombination of previously unrelated ideas.

Diana Rhoten
Social Scientist

“Hardrock Buddy” for each of the seven Team members. The role of a Hardrock Buddy is to orient his or her Team member to the area and help connect them with people in the county.

Project Plan and Team Members

Collaborative Transdisciplinary Residency

After reviewing applications, Colorado Art Ranch selected professionals of diverse backgrounds to develop a vision for the future of the Ute Ulay town site. The following Hardrock Revision Team members are donating their time and expertise to the project:

Hannah Fries, Massachusetts poet and associate editor of Orion Magazine

Bland Hoke, Wyoming transdisciplinary artist and sculptor

Julia Lewandoski, a public historian, musician and facilitator from Montreal, Canada

Anna Mcleod, Irish sculptor, curator, environmental artist, and mediator

Lydia Moyer, videographer, documentarian, and educator from Virginia

Becky Sobell, landscape architect and community facilitator from Manchester, England

Linda Wysong, Oregon interdisciplinary artist, working in public art, performance and social practice.

Information Gathering

During the first week of the residency, team members will meet with stakeholders to acquaint the team with the mine’s history, community values and dynamics, and economic and environmental concerns. These visits will give the team multiple points of view:

- Miners and mining company officials (LKA Enterprises)
- Residents of Lake City and Hinsdale County
- Outdoor enthusiasts (hikers, hunters, anglers, recreationists)
- Government land managers (USFS, BLM)
- Business community and tourism industry representatives
- Environmental groups
- County historians
- City and county officials and elected representatives



Reclamation projects involve inquiry and action that can occupy a roomful of disciplines. It is only through collective interdisciplinary inquiry and discourse that complex systems can be perceived.

**Studio for Creative Inquiry
Nine Mile Run Team**

Collaborative Envisioning

Team members will spend time (alone and as a group) exploring the Ute Ule mine site. Each member will develop a body of work (e.g., notes, sketches, data, interview transcripts, samples, artwork, photographs, poems), which they will use in the collaborative envisioning process. The team will hold weekly meetings, facilitated by Grant Pound, to discuss their observations, interactions, community research, and ideas. During the fourth week of the residency, the team will assemble a collaborative vision for the site.

Community Artposium

At the end of the project an Artposium will be held. The Team will present their vision and recommendations for the site and invite discussion from local citizens and the public at large.

Schedule

June 2011	Send project packets with background information to team members and finalize travel arrangements
June 10	Conduct community survey
Friday, July 16	Residents arrive in Lake City
Saturday, July 17	Orientation, site visit, community welcome dinner
Sunday, July 18	Settle in, explore the area
One (7/18-7/23)	Research (interview, read, observe, gather data)
Two (7/24-7/30)	Individual and collaborative envisioning
Three (7/31-8/6)	Individual and collaborative envisioning
Four (8/7-8/12)	Prepare presentations for Artposium
August 12	Artposium reception and keynote speaker
August 13	Artposium presentations and discussion
August 14-15	Pack up and depart
September	Survey community members and Collaboration Team



Transdisciplinary Collaborations

The increasingly complex nature of social and environmental problems demands new approaches to identifying solutions. One promising approach is a transdisciplinary collaboration of professionals from the arts, sciences, and humanities to assess a problem and envision possible solutions.

Artists and scientists are similar in that their work starts with questions about the what, why, and how of the world's phenomena, yet the methods they use to ask questions and find answers are poles apart. When artists and scientists work together, their different perspectives can lead to conclusions that transcend the results of the disciplines working separately.

Art-science collaborations are especially appropriate when addressing the “revisioning” process that must occur in order to repair or rehabilitate a piece of damaged land. Recent projects have demonstrated the power of art-science collaborations in solving previously intractable problems. Carnegie-Mellon’s Studio for Creative Inquiry combined art, science, and community involvement to clean up Acid Mine Drainage and transform an abandoned coal mine into an interpretive garden describing the treatment process. A nine-year collaboration between artist Aviva Rahmani and bioengineers on the coast of Maine resulted in major bio-remedial habitat restoration.



Collaboration Guidelines

To ensure the success of the project, Colorado Art Ranch will follow guidelines drawn from research on group creativity and the collaborative process (Berryman, 2002; Catney and Lerner 2009; Rhoten et al. 2009; Steinheider and Legrady, 2004; Sawyer 2007; Tress et al. 2005).

1. Team Composition. Assemble a group of five to nine members who:
 - have complementary skills
 - demonstrate mastery in their respective disciplines
 - accept that no one discipline is superior to another
 - have demonstrated the ability to work in groups
 - can convey their thoughts in words, image or performance and are “deep listeners,” able to listen fully and respond with unplanned responses to what they hear

Mining jobs have decreased in relative importance in part because modern mining methods require fewer workers than in the past. If job growth is to occur in the mining industry, it will likely be in mine reclamation, closure and long-term environmental monitoring.

Wilderness Society 2000

2. **Goals and Outcomes.** Establish goals that provide a focus for the team. The goals should be open-ended enough for problem-finding creativity to emerge. Determine what kind of outcomes the project will produce and allocate time and resources to work on the outcomes.
3. **Communication.** Collaborations thrive when there is open communication, personal trust, and willingness to compromise. Keep communication channels open at all times and clarify confusion immediately. Hold regular formal meetings and create opportunities for frequent informal conversations.
4. **Work and Living Space.** Spatial proximity of team members speeds the collaborate process. Provide communal spaces for informal gatherings where spontaneous conversations can occur and private spaces conducive to reflection and quiet concentration.
5. **Facilitation.** Close supervision and detailed work plans inhibit the performance of creative people. However, a good facilitator enhances the collaboration by ensuring the team members can concentrate, uninterrupted, on the task at hand. The ideal facilitator creates an atmosphere of trust and respect, gives the team a sense of autonomy, encourages equal participation in the creative envisioning, and provides the resources and guidance needed by the team.
6. **Process.** Allow the group to alternate work with frequent breaks, and switch constantly between group and individual activity. The creative process is most fruitful when periods of work are combined with periods of play.



The arts can facilitate a process of learning through the engaged senses, bypassing conditioned patterns of thinking and allowing other ways of knowing to come forward, at times subtly, at times overwhelmingly.

Beth Carruthers
Artist and Philosopher

Project Design and Management

Grant Pound, executive director and co-founder of Colorado Art Ranch, will serve as project manager and facilitator. Grant earned a B.S. in Natural Resource Management from the University of Michigan and studied design at the School of Art and Architecture at the University of Idaho. He has utilized both backgrounds in his professional practice of graphic design since 1986.

Kristie Borchers, executive director of the Lake City Downtown Improvement and Revitalization Team, will serve as the local liaison.

Peggy Lawless, co-founder of Colorado Art Ranch, will serve as the project research director. Peggy earned a B.S. degree in Wildlife Biology from the University of Idaho and a Masters

in Liberal Studies degree from the University of Minnesota. Over the past 25 years, Peggy has designed and conducted social and market research for ING, GE Capital, and clients of the Lawless Institute. She is currently the director of research for Webroot Software in Broomfield.

Project Advisors

Todd Bryan, Ph.D., Todd Bryan has worked in the environmental field for more than 30 years and has spent more than 15 years as a mediator, facilitator and trainer. Todd works with government agencies, tribal governments, non-governmental organizations, industry, and communities, where he develops collaborative approaches to environmental and natural resource decision-making.

Rob Blair, Ph.D., Geology. School of Mines. Editor of Western San Juan Mountains: their geology, ecology and human history. Co-founder and President of Mountain Studies Institute.

Ronald Cohen, Ph.D., Associate Professor of Environmental Science and Engineering at the Colorado School of Mines.

Jonathan Lovekin, MS, a geologist with CTL Thompson, a Denver-based integrated geo-technical, materials, geo-structural, and environmental engineering company.

Chris Ray, Ph.D., Research Associate, CU. Expert on pikas as indicator species.

Joseph Ryan, Ph.D., Professor of Environmental Engineering at the University of Colorado

There is a process to reading the landscape, and it begins with observation. This first step, seeing the landscape, is often followed by an appreciation of its content. Only after putting what we see in context can we make effective decisions about what—if anything—is worth saving.

**Richard Francaviglia
Historian**

Colorado Art Ranch

History

Colorado Art Ranch is a 501(c)(3) organization with headquarters in Arvada, Colorado. Founded in 2005, the Ranch travels to towns throughout Colorado to host interdisciplinary residencies, public Artposia and community discussions.

Colorado Art Ranch has sponsored programs in Cedaredge, Denver, Durango, Hayden, Nathrop, Ridgway, Salida, Steamboat Springs, and Trinidad.

Mission

The increasingly complex challenges of the world require new, creative approaches to problem solving. Colorado Art

Ranch believes that the arts, in concert with the sciences, can help solve contemporary land and social issues. Our programs (1) nurture artists who ask difficult questions through their work, (2) stimulate interdisciplinary collaborations that help envision solutions, (3) connect communities of people who want to make a difference through the arts, and (4) build the creative capital of towns throughout Colorado.

Vision

Colorado Art Ranch envisions a world where creative interdisciplinary thinking is cultivated, valued, and used to solve land and social issues.

Values

Colorado Art Ranch is built on the values of community giving, land stewardship, collaboration, respect for our country's rural heritage, creativity, openness of heart, and laughter.

Colorado Art Ranch does not discriminate on the basis of gender, race, religion, age, national origin, ancestry, creed, pregnancy, marital or parental status, sexual orientation, gender expression, or physical, mental, emotional or learning disability.

Hinsdale County

According to the US Census Bureau, Hinsdale County had a population of 840 in 2008, one of the least populated counties in Colorado. The majority (97%) of its 1,069 square miles encompasses public land managed by the U.S. Forest Service, the National Park Service, and the Bureau of Land Management.

Lake City is the only town in Hinsdale County and is one of the largest National Historic Districts in Colorado. With the high percentage of public lands and the pristine mountain scenery, Lake City has become a popular outdoor recreational destination. Reflecting the influx of retirees and second home owners, 61 percent of housing units are reserved for seasonal, recreational, or occasional use. Local government (27%), construction (19%), retail (17%), and accommodation and food services (15%) employ the greatest number of people. Mining accounts for 1 percent of employment.

Relevant highlights of Lake City and Hinsdale County's 2006 Community Plan include:

- Action 7.1.8 Protect watersheds, especially those affected by, or with potential for, mining development.
- Objective 7.5 Promote public understanding and knowledge regarding the local environment.
- Objective 8.1 Develop a balanced approach to public lands management that includes economic reality and a desire to

*Reclamation is a powerful
act, constructive and
imaginative.*

Deborah Haynes
Artist and Writer
Book of This Place

preserve and protect.

- Objective 8.4 Work to protect watersheds from activities and uses that are injurious to them.

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Mining landscapes may be ugly to some (conservationists or romanticists, perhaps) or beautiful to others (mining engineers or some artists, perhaps), but that is beside the point. For most people who live in them, these landscapes have simply become part of the visual framework of ordinary everyday life.

Richard Francaviglia
Historian



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The quality of the environment is the very foundation of the local economy. Issues related to environmental protection are community priorities.

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