

# Researchers tinker with Berkeley Pit

By JENNIFER HIEGER  
of The Montana Standard

Lured by the scent of big money, more researchers are descending this summer on Butte to conduct high-tech tinkering with the Berkeley Pit's metal-tainted water.

The cleanup methods, devised by groups from around the world and brought here, will undergo testing at Montana Tech laboratories. The goal of the effort is to find creative ways to clean the roughly 25 billion to 30 billion gallons of polluted water in the old open pit copper mine.

Montana Tech officials announced the Berkeley Pit Innovative Technologies Project Tuesday at a press conference.

A team of Russian scientists, one of three groups that has been awarded a research contract as part of the program, already has begun work on the water.

"We're close to the cutting edge of technological capabilities ... You're seeing the tip of the ice-

berg," said Hayward Melville, president of Technical Assistance International Inc. The company is working with the Russians on their cleanup method.

The Russians, using about 30 gallons of Berkeley Pit water, are attempting to remove copper, zinc and other metals from the water. So far, the group has produced water that is cleaner than state standards require, Melville said.

An economic analysis of building a plant based on the Russian technology has yet to be done, but Melville voiced confidence that healthy profits would follow.

Karl Burgher, project manager for the Mine Waste Technology Program at Tech, echoed Melville's optimism.

"We'll make money," Burgher said. "They'll be fighting over who gets to put the plant at the Pit."

The trick is to retrieve the metals in a cost-effective manner, one that compares favorably to the U.S. Environmental Protection Agency's

cleanup plan for the Superfund site. That plan calls for adding lime to the water, which would generate large amounts of sludge.

In awarding the three contracts, project organizers looked for already-researched technologies that simply needed some testing and tweaking. A favorable review from the project, which is sponsored by the EPA, provides the technologies a stamp of credibility.

Later this summer, groups from Israel and Australia will visit Butte to test their cleanup techniques.

Project organizers will invest roughly \$75,000 in each technology, Burgher said.

Whether any of the technologies under study will be used at the Berkeley Pit will depend heavily on ARCO and Montana Resources, the companies responsible for the site. They are the customers of the technology developers.

An ARCO official has said the company wants a cleanup method that is low-cost and low-risk.

## Grant Kohrs hosts Heritage Days this weekend

Speakers, cultural demonstrators and musicians highlight the 20th annual Western Heritage Days July 12-14 at the Grant-Kohrs Ranch National Historic Site in Deer Lodge.

"This is our first three-day Western Heritage Days event," said superintendent Tony Schetzle. "It runs from 8 to 5:30, free of charge, with activities for all ages."

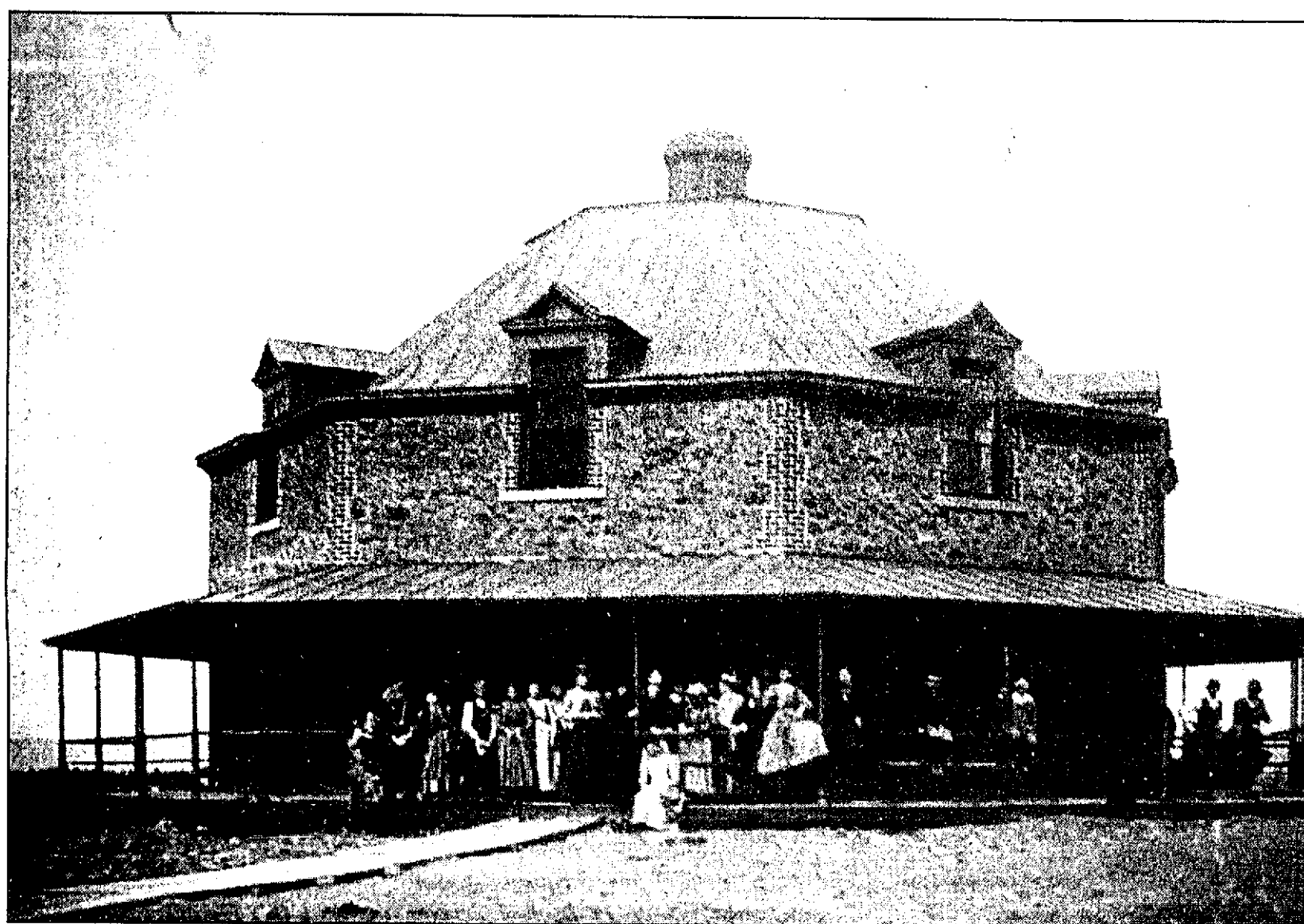
Speakers will include Wyoming authors Steve Mount and Tom Lindmier, who will feature clothing and tack of 19th century working cowboys at the ranch Daily Barn. Their presentation will be at 1 and 3:30 Saturday, and 11:30 and 2:30 on Sunday, followed by signings of their new book, "I See By Your Outfit."

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HELENA

# KLEFFNER RANCH



The octagonal stone farm house was built in 1888.

Photos courtesy of the Montana Historical Society

## One of the area's greatest treasures

**Y**ou can't miss it. Three miles southeast of Helena at the base of the Elkhorn Mountains, the octagonal stone farmhouse and its adjacent stone barn stand in stark contrast to the nearby ASARCO Smelters.

Nestled on the banks of Prickly Pear Creek, the White Face Farm, better-known today as the Child-Kleffner Ranch, is one of the Helena area's greatest, although under-appreciated treasures. Located on Route 518 between Montana City and East Helena, the ranch is an architectural and agricultural gem, established as one of Montana's first purebred Hereford cattle ranches and as a weekend get-away for the local rich and famous.

The Child-Kleffner Ranch was built by local capitalist William C. Child in 1887. Child, an Iowa native, came to Montana in approximately 1870, working for the Wells Fargo Express Company and the Montana Territorial Land Office. By the early 1880s, Child had amassed a small fortune from mining investments he had made in the Helena area, joining the ranks of the local elite and contributing to the Queen City's status as home to more millionaires per capita than anywhere else in the country.

Enjoying his new-found wealth and status, Child purchased an elegant residence on North Ewing Street in Helena and a large tract of acreage near the confluence of Prickly Pear and McClellan Creeks southeast of town, where he introduced the first herd of purebred, white-faced Hereford cattle to the Helena Valley.

AFTER THE DEVASTATING winter of 1886-1887 wiped out a large percentage of Montana's livestock, William Child made plans to assure that his agricultural pursuits near East Helena would never experience such a disaster. To avert another such tragedy from happening to his own herd, Child had plans drawn for the largest barn in Mon-

## KIMBERLY MORRISON



### MORE FROM THE QUARRIES OF LAST CHANCE GULCH

tana and the Northwest.

During the summer and fall of 1887, Child established a small sawmill and quarry on McClellan Creek, south of his building site, and he hired approximately forty Italian stone masons to accomplish the project.

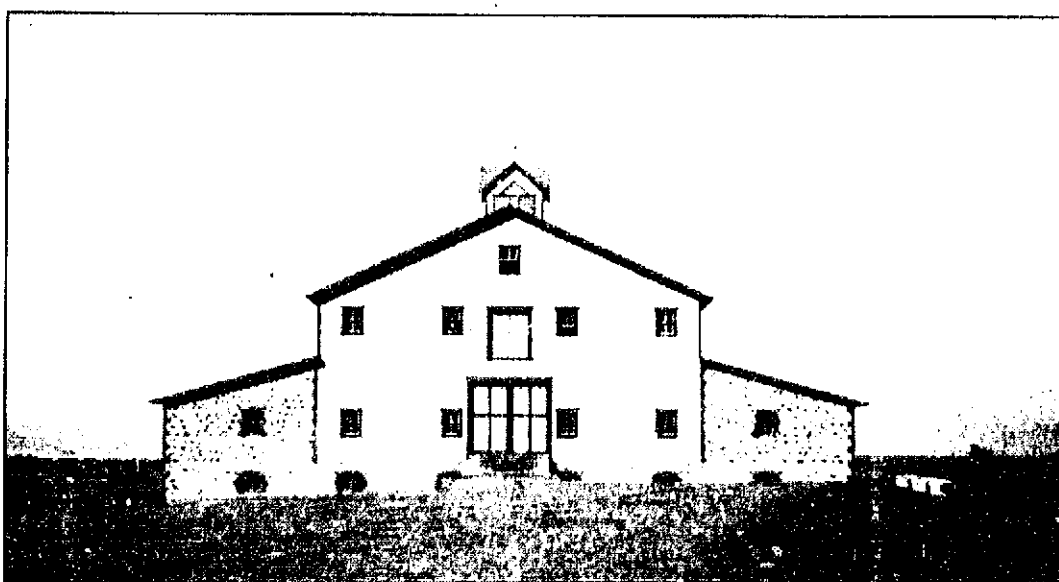
The result was a massive three-story 27,000 square-foot barn of native field stone, capable of housing over 500 cattle and storing over

250,000 cubic feet of hay. The barn was patterned after woolen mills on the East Coast and was complete with running water from an artesian well, a novelty at the time. Other stone outbuildings, including a feed shed, cookhouse, milk & ice house, and a log granary building, speculated to have served as a roominghouse for the stone masons and carpenters who originally constructed the barn, were also built in 1887.

Child did not have his unique octagonal stone farm house built until late 1888. The eight-sided residence, which is likely the only nineteenth-century octagon-styled house west of the Mississippi River, was constructed exclusively for entertaining guests and colleagues of Mr. Child, who continued to reside at his permanent residence on North Ewing Street in Helena.

South of the house, a small horse-racing track was built, and numerous dances and gatherings for Helena's wealthy residents were held in the second story ballroom of the home. Local newspapers followed the parties at the ranch in great detail, and guests over the years included such famous Montanans as Charles Broadwater, Anton M. Holter, Granville Stuart, and William Andrews Clark. The ranch was served by spur lines of both the Northern Pacific and Montana Central Rail-

(More on RANCH, page 7A)



The massive three-story barn was built in 1887 and is capable of housing more than 500 cattle.

Compared to other college campuses

## Drug, alcohol use lower at Carroll

By MARK GOLDSTEIN  
IR Staff Writer

A recent survey of Carroll College students indicates that drug and alcohol use probably is lower there than on many college campuses.

However, a large portion of the student body — and a significant number of underage students — admitted using alcohol, which, like at many colleges, appears to be the drug of choice.

The survey was conducted in April by Carroll's Alcohol-Free Events program (CAFE) and was compiled by the department of mathematics. Approximately 52 percent of the students on campus (708 out of 1,347) responded to the survey.

"This was not a scientific study, and one can never be certain that the surveys were filled out truthfully, but comparison to national statistics would seem to give credibility to the results," Carroll mathematics professor Marie Vanisko said.

TO CONTROL BIAS, students filled out the survey anonymously, in classes that were selected in such a way as to get as representative a sample of Carroll students as possible, Vanisko said. The results were compared to a national reference group of 38,715 students who had filled out the same survey in previous years.

According to the survey:

- 85 percent of the students who responded admitted using alcohol in the past year, the same percentage as the reference group.
- 13 percent said they used alcohol more than twice a week, compared to 20 percent for the reference group.
- 67 percent of underage students said they had consumed alcohol within the previous 30 days, a decrease from 76 percent last year.
- Alcohol use within the previous 30 days was reported to be higher among men (79 percent) than women (64 percent). Students involved in intercollegiate activities reported alcohol use higher than the general population, while students involved in religious activities reported drinking less than the general population.
- 25 percent of the respondents said they live on drug- and alcohol-free floors and another 25 percent said they'd like to.

HOWEVER, APPROXIMATELY 67 percent said alcohol "breaks the ice" and enhances social activity, and therefore would like it to be available at campus social functions, and 32 percent reported having driven under the influence within the previous year.

■ 11 percent of the students who responded reported using marijuana during the previous 30 days, compared to 13 percent for the national reference group. Marijuana use was reported to be higher among athletes and students from out-of-state than by non-athletes and students from Montana.

■ 10 percent reported ever having tried drugs other than alcohol or marijuana, and only 1 to 5 percent reported having tried them more than once.

■ 15 percent said they'd like to have drugs available at campus social functions, although 89 percent said their peers would disapprove of regular marijuana use. 90 percent said their peers would disapprove if they ever used cocaine or LSD.

■ 4.4 percent of the male and female respondents reported having been taken advantage of sexually, and 77 percent of those cases were drug or alcohol related.

■ 49 percent said they believed drug and alcohol use on campus was lower than at other colleges, and 75 percent said they believed there is a great awareness of the concern the school has for drug and alcohol abuse. However, 48 percent of women and 30 percent of men said they don't feel the school's drug and alcohol policies are enforced.

## COURTS

### DUIs

VICKI ERICKSON HOFF, 36, Helena, pleaded guilty to DUI. \$525 fine with \$200 suspended. 10 days in jail with 9 days suspended. City Court.

MARCO ANTONIO CASAL, 40, East Helena, pleaded guilty to DUI. \$525 fine with \$200 suspended. 10 days in jail with 9 days suspended. City Court.

HAROLD LYNN MURPHY, 41, Helena, pleaded guilty to DUI, \$525 fine with \$200 suspended. 10 days in jail with 9 days suspended. City Court.

DANIEL RAYMOND SMITH, 38, Helena, pleaded guilty to DUI, six months in jail with all but one day suspended, \$350 fine. Justice Court.