

High Country

news

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The Paper for People who Care about the West

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The Future of the West

HA! A pretentious subject, even for the overheated people who have over-run this country. The only bright spots in this issue are the gloomy predictions -- a drowned Salt Lake City, Gov. Lamm's year 2005 vision, 1984 in the Rockies -- things we could have told them back in 1492, were they the listening types.



Dear friends,



High Country News

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This special issue on the West's future was suggested by the Lander staff and carried through in Paonia. The result of this trans-state collaboration generated, happily, too many provocative pieces to cram into these pages -- pieces which we will try to work into a future (with a small 'f') issue.

Abandoning the future for the present, we congratulate Montana bureau chief Don Snow, who this month becomes executive director of the Northern Lights Institute in Montana. Don has been an asset to the paper for several years as a writer and then as bureau head for nine months. We wish him well. In another change, Mary Moran, an intern for the past three months, has joined the editorial staff, which means she has also joined the mail-opening and the mailing-out-

7000-papers staff. We welcome her.

A frequent contributor to High Country News is about to receive a Steuben crystal trophy for a photograph that originally appeared in this newspaper (HCN, 3/19/82). The photographer is Dale Schicketanz, and his photo of aspen trees blighted by graffiti is now on display at Epcot Center in Orlando, Florida. Just look for the Professional Photographers' Showcase.

Guilty Conscience Department: To the many letter writers to HCN, we ask your patience. Space each issue is tight. But we'll shoehorn them in eventually. We like letters; we especially like short letters.

The Research Fund swells and it is still a treat to pick up the mail. The \$20,000 goal comes closer thanks to your support. Assuming our envelope-stuffing corps is up to it, a second Research Fund mailing will go out soon. If you're planning to contribute,



Dale Schicketanz

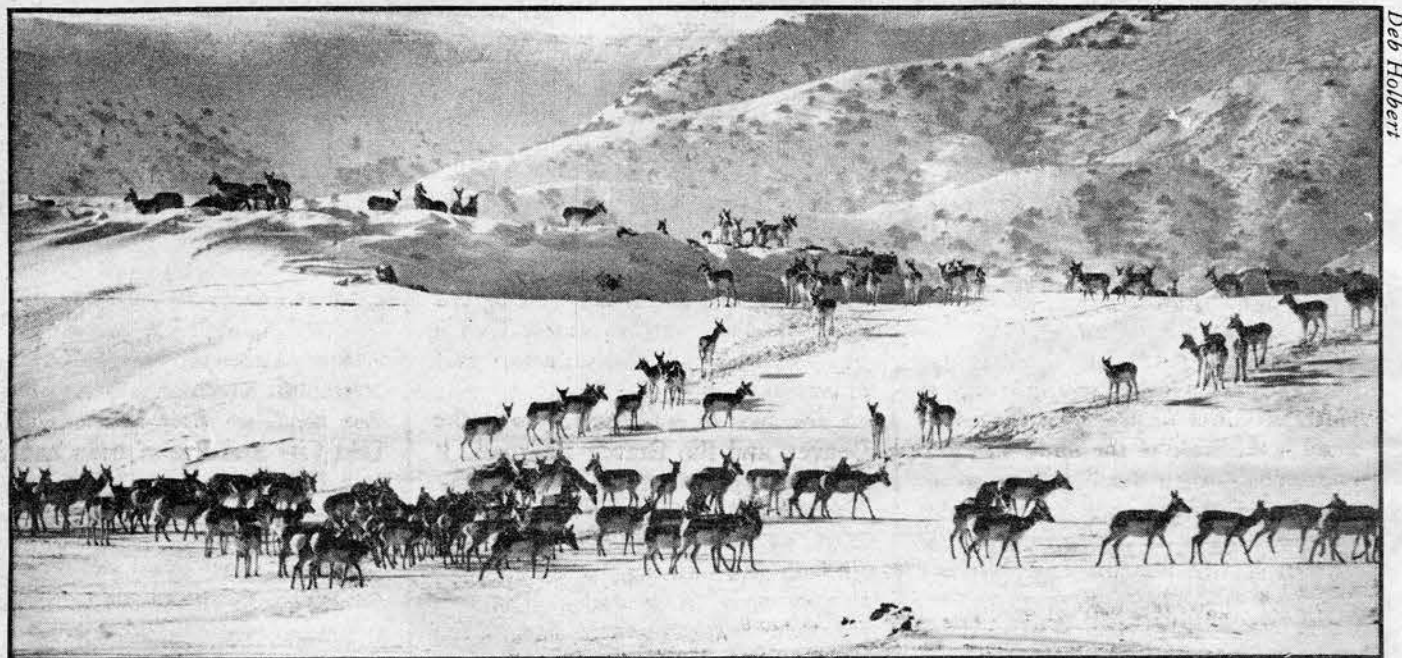
but haven't gotten around to it, acting now will save us sending you a second letter... and you receiving it.

Finally, best wishes for a bright and hope-filled 1984 from High Country News to our family of readers.

--the staff

WESTERN ROUNDUP

Big game moves down to Wyoming towns



Deb Holbert

Hundreds of antelope moving down from the White Mountains near Rock Springs, Wyoming.

Only moderating temperatures have averted wholesale decimation of the West's big game herds. Deep snows still persist in many areas, but the numbing cold which requires so much energy for an animal just to stay alive passed away with the old year.

The losses of antelope still may exceed normal winter kills in Wyoming. That normal loss, according to Game and Fish officials, may take up to 75 percent of the fawn crop along with many of the older and weaker animals.

Nearly every larger town in eastern and southern Wyoming has reported antelope either inside the city limits or on the outskirts. All were searching for food. And some were seeking refuge from the deep snow. During the first few days of January, pronghorns were reported at Lusk, Douglas, Laramie, Rawlins, Rock Springs, Green River, and Evanston. At Lusk, an estimated 100-150 antelope had migrated into town, including a few that blundered right onto Main Street. Game Warden Tim Fuchs also reported animals dying around haystacks. The die-off is caused mainly because antelope cannot easily digest hay and cannot get to open water. Their stomachs become impacted, causing slow death unless the animals also have access to the browse plants they normally eat. Natural foods are the sagebrush, bitterbrush, rabbitbrush, and other shrub-type plants found on the range.

Wyoming Game and Fish District Supervisor Phil Riddle at Green River

told the Green River Star "There are very minimal beneficial effects we can do by feeding the antelope. We would just be doing it to satisfy the public's demand." An estimated 6,000-7,000 antelope are in the area from Green River to Point of Rocks just east of Rock Springs.

Further west, near Evanston, 65 head of pronghorns were killed December 28 when they were hit by a train. The animals had sought refuge from the deep snow in the only place available, along the railroad tracks. More antelope were killed elsewhere in car accidents.

According to Game and Fish wardens, there were about 1,000 antelope heading west toward Evanston and an estimated 10,000 head of deer in western Uinta County and the Bridger Valley "... on the move, looking for browse."

The *Unita County Herald* reported a number of ranchers' haystacks have been besieged by both elk and deer. One rancher near Woodruff, Utah, said as many as 50 deer were at one haystack, and another rancher 20 miles south of Evanston reported deer, elk, antelope and moose all feeding at different parts of his ranch. Many ranchers were tolerating the animals out of sympathy with their plight. Ranchers can submit damage claims to wildlife departments in partial reimbursement for their hay losses. At Douglas, in eastern Wyoming, there were small herds of antelope moving through residential areas of town.

Meanwhile, the saga of the Taylor Lawrence 28-mile fence and migrating antelope onto the Red Rim in southern Wyoming has not ended. Early in the winter, Lawrence's 6-foot-high fence prevented some 1,600 antelope from reaching ancestral winter ranges on Red Rim early in the winter. Then the blizzards hit, and now Wyoming Game and Fish biologists cannot locate "hundreds" of antelope which are normally in the area. But south near Craig, Colorado, some 500 more pronghorns have shown up that would not normally be there.

In other towns, wildlife has suddenly become a part of town life. Both deer and elk were reported feeding on the golf course at Saratoga's Inn, and elk and antelope were seen within a half mile of Lander -- an unusual sight. Deer have also been seen within the Lander city limits, and several moose are temporary winter residents of backyards. At Jackson, a moose wandered onto the roof of a building butted into a hillside, couldn't return, and fell 15 feet. It died from the injuries.

The respite provided by warmer weather now comes at a time when the coldest part of winter usually occurs. However, several months of snow and cold stretch ahead. Not much snow melts unless chinook winds take it off. If those winds don't blow this winter, it could still be a disastrous year for big game in Wyoming and several other western states.

--Tom Bell

Is Mother Nature angry at Utah?



Utah's Thistle Lake buried homes, including this one with just a roof showing

There's a saying here in Utah that if things are going well, it's because "people are paying their tithing."

If true, then in 1983 everyone must have stopped tithing. For the spring brought with it natural disasters -- some would say Acts of God -- among which was a giant mudslide that inched its way down into Spanish Fork Canyon, blocking the Spanish Fork River. The slide then became a dam over 200 feet high and 1000 feet wide.

Behind the slide was a new lake which covered the sleepy farming and railroad community of Thistle and effectively cut off all of eastern Utah from the populous Wasatch Front, both by highway and rail.

From the moment the first small bump appeared in state road 6-89, the state, aided by the Federal Emergency Management Agency, started making plans to control the problem. But to no avail -- the scale of the slide was too enormous -- even the big Cats were puny measured against the slide. At Thistle Lake, at least, nature was still dominant. Dr. William Lee Stokes, professor emeritus of geology at the University of Utah, called it a slide that "will be in future geology textbooks."

There was nothing simple about dealing with the aftermath of the slide. Acting on another saying -- this one about turning lemons into lemonade -- residents of Carbon

County asked that the state keep the new reservoir and use it to generate hydroelectric power and for recreation. With the federal Bureau of Reclamation no longer handing out man-made reservoirs with a free hand, the Utahns felt it made sense to grab what reservoirs happened to come by.

The local pleas caused the state initially to go back and forth on its plan to drill drainage tunnels through the slide and into the lake. An eastern Utah paper wrote:

"From hour to hour, the plan by Utah state officials to drain, the growing lake and rebuild the damaged highway through the canyon has changed, and not just in minute details or statistics. The range of solutions has varied so widely that it has left a swath of confusion and rumor in its wake."

The first to act decisively was the Denver and Rio Grande Railroad. It links mines in Carbon County to the West coast. With the rail line out, the shipments of coal came to a halt, and the already staggering local coal market went to its knees. The lost highway cut the Price area off from the populous Wasatch Front. And the lost rail line cut the area off from its coal markets.

The railroad had to wait on the state to decide the fate of the lake. Once Utah announced it would drain the lake, the Denver and Rio Grande

quickly drilled a 3400-foot tunnel and laid new track. After further delay, the state further announced that it would not rebuild the existing road over the slide, but would instead build a new road around it.

Roads usually take years to build. This one was hurried, but it still didn't open until late December 1983. In the meantime, what had been a scenic, two-hour trip from Price to Salt Lake became a four-hour trek through the desert. Moreover, with the road closed, tourists from the densely populated Salt Lake City area stayed away from eastern Utah in large numbers. In Price, some motel and service stations reported business down as much as 80 percent.

The proverbial silver lining, however, appeared on Price's main street, as merchants who normally lose much of their business to Salt Lake City and Provo malls had their best Christmas ever.

The wonder-lake is about dry now, and the state and federal officials seem determined to keep it that way. But local officials are still making their desires known for using it some day for recreation and power generation. As one local official put it:

"I hope one day we can look back on this whole thing and be reassured that God really does love us."

--Layne Miller

BLM's range monitoring comes under attack

With 70 percent of the nation's 170 million acres of rangeland in only fair or poor condition, some conservationists are concerned about a new Bureau of Land Management monitoring system for the lands it manages.

Bill Meiners, a range conservationist with 30 years experience and consultant to the Natural Resources Defense Council, said "It is a move to accommodate the livestock operator and throw out any semblance of regulatory control."

The budding controversy is over two different systems of assessing range condition. One is called Soil and Vegetation Inventory and Management (SVIM); the other is Ecological Site Inventory (ESI). Last year the Bureau of Land Management rejected SVIM in favor of ESI. Environmentalists are concerned that the adoption of the latter system is a move to legitimize the status quo; to keep the same current levels of livestock grazing on public land when reductions are needed to improve range condition.

Johanna Wald of NRDC said, "The new system makes conditions look better than they actually are. They are

not going to make any changes in grazing management based on the information gathered. Monitoring is the only action that they are willing to take, while what many of these lands need is reductions in the number of cows grazing on them. There is a limit to the amount of abuse these lands can take.

"Because of the inadequacy of the data being collected," she added, "it will be more difficult in the future when someone does want to do something, but doesn't have an accurate picture of the current situations. It will speed the deterioration of the grazing lands."

Range management is a technical profession and the secrets to the merits of the various systems are locked away in the factors used in each evaluation system. SVIM took an extremely detailed look at current and potential condition of range lands. But even critics of the new system admit that SVIM was too detailed, collecting data that was probably unnecessary and extraneous to sound management.

According to Bill Templeton, the Washington, D.C.-based chief of the

Division of Rangeland Resources for BLM, "SVIM was rigid and expensive. It cost 50 cents an acre more for the assessment and was coming up with no better product. A number of range professors around the West thought that some of the factors used in SVIM were questionable."

According to NRDC consultant Meiners, a good system would look at soil condition, vegetation growing relative to soil capacity, degree of erosion, erosion hazard, watershed values, control and yield of water, and wildlife values. The ESI system stresses measuring the first two.

Meiners agreed there were some problems with SVIM, but said it assessed basic resource conditions and provided basic decision-making tools. Managing trends on rangeland is important, he added, but "the ESI system doesn't address the immediate needs of the land."

However, generating much concern about the changes may be difficult. As one activist said, "It's done in such a way to bore the maximum amount of people."

--Dan Whipple

HOTLINE

The military on skis

The military presence in the West is usually in the form of silos, missile test ranges, and airports. But now the U.S. Army National Guard is thinking of trading its high-tech existence in for cross-country skis. Lt. Col. Ray Dissinger of Golden, Colorado, said the Guard is thinking of establishing mountain-combat units along the lines of the famed Tenth Mountain Division -- the men who came back from World War II to help found Aspen, and later Vail, as ski resorts. The new units would be based in western Colorado communities, possibly including Aspen, Steamboat Springs, Rifle, Glenwood Springs, and Gunnison. Front Range candidates are Leadville, Salida, Estes Park and Idaho Springs.

Flood erases Anasazi faces

Part of the Thirteen Faces pictograph panel in Canyonlands National Park has disappeared. The Anasazi painting on a sheltered sandstone cliff face had survived seven to ten centuries of weathering, but last summer's heavy flooding was too much -- three of the thirteen faces in the panel were washed away. Park rangers only recently discovered the loss when a washed-out jeep road up Horse Canyon was reopened.

NRDC sues BLM over grazing



A coalition of environmental groups, led by the Natural Resources Defense Council, brought suit Jan. 11 against the Department of the Interior and the Bureau of Land Management for allowing serious environmental damage to the publicly-owned rangelands in the Reno, Nevada area. The lawsuit, filed in federal district court in Reno, alleges that the BLM has allowed overgrazing by private livestock owners, and that the agency has done nothing to modify these practices in spite of well-documented evidence of their severe consequences. The legal action seeks to compel the federal government to improve resource conditions and range management in the Reno area and to prepare an adequate environmental analysis of the area's resources. The area affected by the lawsuit contains approximately 700,000 acres of public lands, including critical habitat for mule deer.

BARBS

Shot for shot.

American Indians may be repaying the white man for his twin 'gifts' of liquor and smallpox. Many Indian tribes are using their immunity from certain state laws to establish high-roller bingo games on reservations -- games that offer several thousand dollar jackpots. According to the newspaper *Americans Before Columbus*, the games draw extremely well, thanks probably to the white man's well-known inability to resist the lure of quick, unearned bucks.

The Future of the West



Does a rising Great Salt Lake portend a wet Western future?

by Ed Marston

Nature is most spectacular when it moves quickly -- shaking Idaho like a blanket or building a new reservoir in Spanish Fork Canyon, Utah in a matter of days.

But nature is most interesting when it moves methodically, giving us time to marshal man-made forces against those deployed against us.

Such a classic confrontation exists now around the Great Salt Lake of Utah. For the seventh year in a row, the 2,000-square mile, 30-foot-deep lake will rise -- a rise that threatens Interstate highways, wildlife sanctuaries, mineral extraction operations, the Salt Lake City International airport, thousands of homes and businesses, and possibly downtown Salt Lake City itself.

A submerged downtown Salt Lake, most likely featuring boat tours of Temple Square, seems inconceivable; as inconceivable as the running of a river down that city's main street -- something that happened in last spring's runoff.

Historically, it's not impossible. Those who study terminal lakes -- lakes with no outlets -- refer to the Great Salt Lake as a puddle of its former self. Only 10,000 years ago, the lake was 1,000 feet deep and covered about 20,000 square miles of a large part of Utah as well as pieces of Idaho and Nevada.

Since then it has dropped by down-cutting a new path north into Idaho's Snake River drainage through Red Rock pass and been boiled down by the Utah summer sun to about 2,000 square miles. The shrinking has uncovered vast amounts of land and concentrated the lake's minerals until its water is eight times saltier than that of the ocean.

Until recently, that saltiness was the lake's fame -- it was said you could practically walk on the water; that it was impossible to drown. That was especially true in 1963, when the lake was at its low point in recorded history. Today, however, it is easier to drown, thanks to enormous spring inflows into the lake combined with cooler, wetter summers that reduce seasonal evaporation.

The damage caused by the rising lake is proving to be nonsectarian. The usual western situation pits wildlife and roadless areas against development. But in this case, wildlife and the man-built environment are at risk from the same forces.

But before the nuts and bolts of the damage, let's look at the numbers. Historically, the lake hit its low point in modern time in 1963, when it was 4,191 feet above sea level. Its high point recently came in 1873, when it peaked at 4,211 feet.

Officially, the Great Salt Lake is at flood stage when it is 4,202 feet above sea level. On July 1, 1983 it peaked at

4,205 feet -- a full three feet above flood stage.

At that point, officials were hoping, and weather people predicting, that the lake would make a large summer drop. But by September 25, thanks to continuing inflow and a cool summer, it had dropped only six inches -- to 4,204.5 feet.

And then, relentlessly, it began to rise again. As of early January, it has risen a foot since summer, to 4,205.7 feet; the runoff season is still months away; and the lake's drainage basin holds double the amount of water -- in the form of deep drifts -- that it held last year at this time.

The numbers expressing the lake's height above sea level aren't impressive. Rivers in flood can come up many feet a day, so a change of a few inches, or even a foot, in the height of a lake doesn't seem like much.

But rivers usually flow between steeply walled banks. The lake sits at the center of a large, gently sloping basin. There are no steep banks, no sea walls -- only vast expanses of nearly level mudflats and 'beaches.' As a result, a small vertical rise in the lake allows enormous horizontal movement. A change in lake elevation of a few inches can send the water scurrying hundreds of feet.

Moreover, even by river standards, the cumulative rise has been impressive. Stan Elmer, a Utah state

official whose office is adorned by a large chart of the lake's rise, says: "That crazy lake has come up seven feet in just two years."

Elmer is not talking about a placid pond that happens to be getting bigger. It may now be a shadow of its former, Lake Bonneville self, but it is still an inland ocean. In the winter, storms generate large waves -- waves that do a great deal of damage because they pound structures with a liquid that is more like mercury than water.

To give one example, the Southern Pacific stone causeway across the Great Salt Lake is rip-rapped with large boulders. But because of the water's weight, those boulders aren't laid bare against the side of the causeway. They are shoved into retired boxcars and the boxcars are then laid against the causeway. The de-wheeled boxcars act as long, strong containers to keep the boulders from getting bounced away by the waves.

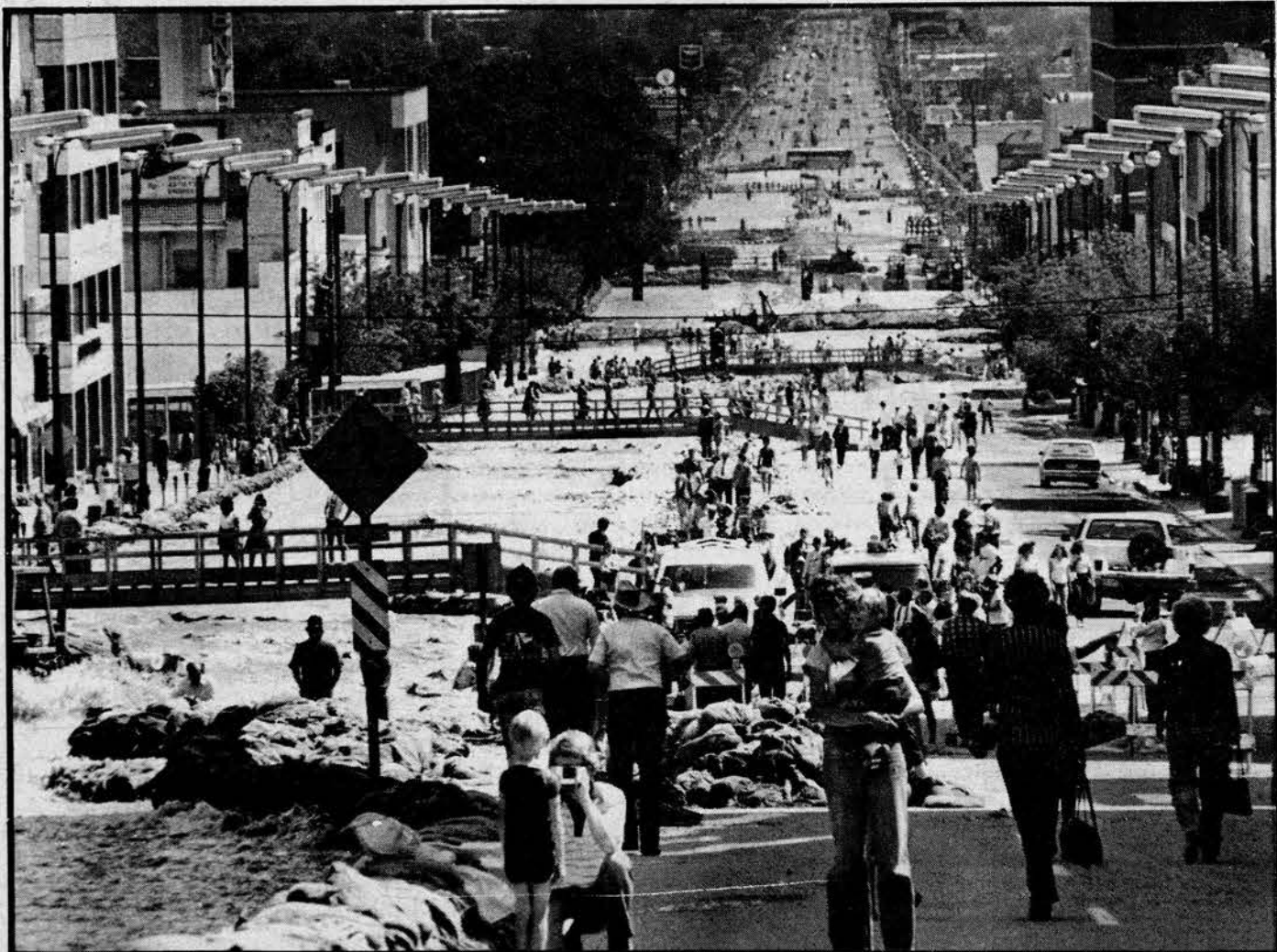
In our economically-oriented society, something isn't disastrous until it has been translated into so many millions of dollars in damage. By that measure, the Great Salt Lake is already a disaster, and becoming more so every day.

Losses so far are put at about \$100 million. It is estimated that each additional one-inch rise in the lake will cause \$19 million more in damage. If the lake goes up three more feet, as some expect, that would be another \$700 million or so.

But the \$100 million figure doesn't begin to show what the Great Salt Lake is costing Utah. Stan Elmer says, "If you have a big truck that can move gravel, you have a job somewhere here. You can't believe all the trucks and trains filled with gravel you see on the road."

That gravel is being hauled to prevent damage, rather than repair it. To take one small example, the Southern Pacific railroad has done more than rip-rap its causeway with rock-filled boxcars. It has also raised the track level, which is a main east-west line, up three feet over the past year to keep ahead of the rising lake. Spokesman Henry Ortiz based in San Francisco, says, "We're spending \$20 to \$30 million a year to stay ahead of the lake."

Shirley Iverson in the Utah Department of Transportation says the state has just awarded a \$1.5 million contract to build earth dikes four feet above the level of Interstate 80 south of the lake. The dikes will run for 3.7



Don Grayston

DOWNTOWN SALT LAKE CITY this summer during the flooding. Sandbags directed water to the left, while pedestrians crossed the new creek by bridge.

miles alongside the road. With the help of pumps, the state is hoping it can keep the Interstate open, even during the storms which now close it by washing water over it.

The state is also looking ahead to the day dikes won't be able to keep the water out. The plan then is to push the dirt dikes over the Interstate, raising up its level just as the railroad is doing, "incorporating the dikes into the road," as the transportation department puts it. Or, "We'll just drive on dirt, like in the old days," as a non-bureaucrat puts it.

Large amounts of money are also being spent for protection by the Great Salt Lake's major industry, which boils minerals out of the lake's rich brew. The extraction is done in solar ponds -- water is pumped out of the lake into large, shallow, diked-in areas. The usually hot summer sun evaporates the water, leaving the salt behind.

The amount of salt in the water is impressive -- 13 to 27 percent by weight, depending on the location in the lake. (The lake is stratified by depth and location.) About 80 percent of this is common table salt, with the rest sodium sulfate (glauber's salt), salts of potassium, chlorine, magnesium, sulfur and calcium, and trace elements such as lithium, bromine and boron.

One of the ironic, embarrassing twists this year has been caused by the failure of Salt Lake City's own evaporation ponds to produce enough road salt to take care of the tough winter. As a result, the city and county of Salt Lake have had to buy road salt for perhaps the first time ever.

If the production of road and table salt, plus a few trace elements, seems like a humble business, be advised

that the Great Salt Lake contains an estimated \$90 billion in minerals. The Atlas of Utah says that if only 10 percent of that wealth were extracted, it would produce more minerals than Utah's Bingham copper mine -- the largest open pit in the world. And the mining of the lake doesn't leave a giant hole in the earth.

Moreover, it is a renewable industry. The Bear and Jordan and other tributaries are continually carrying fresh loads of salt into the lake. Solar energy then does the rest.

The extraction of salts and minerals from the lake is also the center of the debate over what to do -- a debate which happens to illustrate the careless, unthinking way in which some major decisions have been made. The state's Stan Elmer says that until the mid-1950s, the Southern-Pacific railroad crossed the lake on a rickety wooden trestle.

"But it was a key transportation link and there was concern about sabotage." So about 1959, back in pre-NEPA days, the federal government and Southern-Pacific jointly built the stone causeway. Since then, the causeway has been carrying trains, and serving, by the way, as a very porous dam.

As a result, Elmer says, "There is a 2 1/2 foot height difference between the north and south ends of the lake." That difference will shortly increase to three feet. The north end is the lucky, lower end, and has the richer brines. The south end, which receives most of the river inflow, is the higher end, with the more dilute brines.

To cure the imbalance, Utah has been arguing whether it should put a 300-foot-breach in the causeway. That length breach wouldn't equalize the

two ends, Elmer says. That would take a 1000-foot-long breach. But the short, \$3 million breach would provide enough flow from south to north to drop the south end by nine inches and raise the north end 14.5 inches. The remaining height difference would be about one foot.

The breaching seems a relatively straightforward matter, but so far it has not been that. Peter Behrens, president of Great Salt Lake Minerals and Chemicals which pulls salts from the brine in the north end of the lake, says the breach won't lower the lake enough to help the south very much, but it might put him out of business.

The rise, he says, will flood many of his evaporation ponds and reduce the salinity of the water. The real solution, he says, is to pump water out of the Great Salt Lake into the Great Salt Lake desert to the west, creating a "Lesser Salt Lake." To do this would require the installation of large diesel or electric pumps, costing perhaps \$30 million, and something that couldn't be done physically before 1985.

Behrens, who is a master of media

relations and who has been able to get his position across much more effectively than the larger firms on the south end of the lake, says:

"The inflow to the lake is governed by precipitation, which we cannot change. We can only remove water through evaporation, and we do that by expanding the surface of the lake." The more surface, the more evaporation, and Behrens wants to create that additional surface by pumping water into the desert.

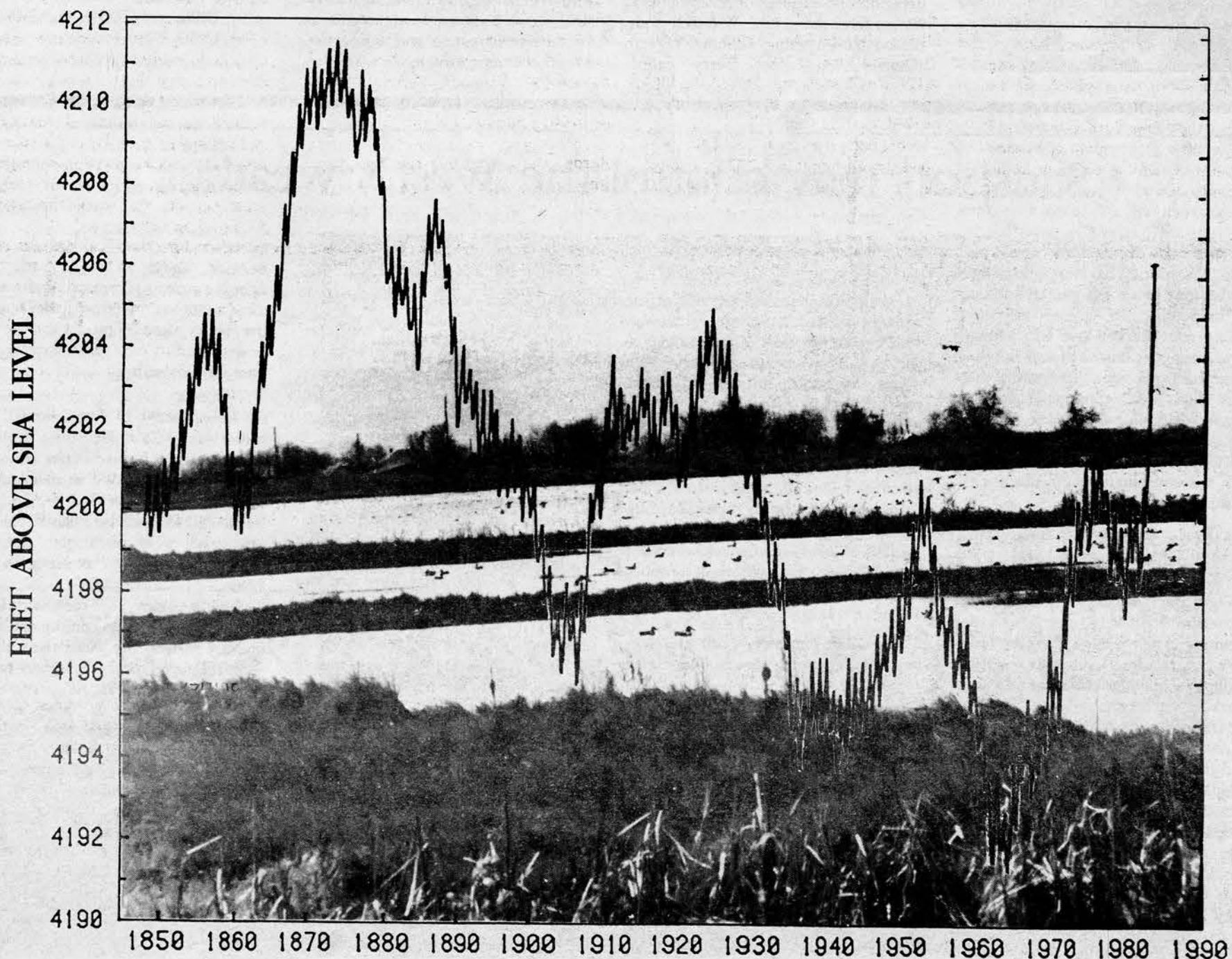
He estimates that "pumping the water over 400,000 acres in the desert will result in a one-foot drop each year." The breaching alternative, he said, would destroy 300 jobs and \$40 million in salaries.

AMAX Magnesium officials, whose firm extracts magnesium from the lake's south end, disagrees. It says breaching is the least expensive way to save jobs and damage on the south end of the lake. Walt McCormick, an AMAX consultant, argues that even if the water is eventually pumped into

[Continued on page 6]

The real solution is to pump water out of the Great Salt Lake into the Great Salt Lake desert

The Great Salt Lake rises toward record levels



Rising Salt Lake...

[Continued from page 5]

the desert, back out onto its ancient and former lakebed, the causeway should be cut.

"Our position has been to open the causeway and get what you can -- even one foot would have saved us a lot of our dikes. Then let them look at pumping it into the desert."

McCormick says the lake has been studied to death, and that the causeway is forcing the south end of the lake, which is 60 percent of the total, to do the work the entire lake did before the railroad and federal government built their inadvertent dam.

"The cheapest way to store a lot of water is to put it in the north end of the lake," continues McCormick. "A one-foot drop in that lake means uncovering a lot of area." The lake bottom is nearly flat, and a drop of just inches would uncover thousands of acres.

The companies haven't been fighting their battles alone. The battle has pitted Ogden, which depends on north lake firms for jobs, against Salt Lake City, which depends on the southern firms.



Peter Behrens



That civil war appeared to paralyze the Utah State Legislature. It met in special session this summer to appropriate \$3 million to breach the lake, but the measure was voted down by one vote. The legislature is again in session, and this time the breaching could pass.

But it won't pass alone. The Ogden and Salt Lake City chambers of commerce signed a peace treaty in December -- they agreed to support the breaching of the causeway, but only if the legislature also agreed to the pumping plan. The key figure in convincing the Ogden chamber to abandon its opposition to breaching was Behrens, who may have been using his opposition to breaching as a way to force the entire Wasatch front behind the pumping scheme. Ogden chamber head Joe Terry called

Behrens' change: "An outstanding piece of statesmanship."

That puts the Wasatch chambers in line with the governor. Stan Elmer, whose official title is Sovereign Lands Coordinator, says Governor Scott Matheson (D) has developed a three-level approach.

The short-term cure is to breach the lake in 1984, followed by the middle-term pumping in 1985.

In the long term, "the solution is to use up more water before it gets to the lake. Bear River contributes 60 percent of the lake's water, and it is the least developed." Reservoir development on the Bear in Utah, Wyoming and Idaho is the preferred long-term solution. Elmer says. Reservoirs both evaporate water and encourage irrigation and other uses, which consume even more water.

SALT HARVESTING at the edges of Great Salt Lake

Theoretically, the breaching and pumping, followed by long-term water development, makes for a neat package. But Elmer says there is a problem: It may be that "in the short term everything is going to be damaged before the breaching and pumping are in place."

Utah is not a state that enjoys throwing money at problems. And one observer of the legislature predicts that despite the drama of the rising lake, most attention this winter session will go to increased money for education, a category in which Utah ranks very low.

Sunspots may control the West's weather

With the left-for-dead Great Salt Lake shuddering back to vigorous life, frightened Utah has turned to seers for help.

As the chart of the lake's water level shows, it has risen and fallen in jagged, seemingly unpredictable ways over the last century of recorded history. Many, including the National Weather Service, have tried to predict the lake's vertical zigs and zags. The lake has confounded most, but not all, of the futurists.

The successful seer has been Hurd C. Willett, a retired climatologist at the Massachusetts Institute of Technology. Back in 1977, he predicted the lake would hit 4,205 feet above sea level right about now. The lake today is a bit above 4,206 feet, making Willett's six-year-old prediction remarkably accurate.

Unfortunately for Utah, his scientific report was laughed off. He had the bad luck to release it in the middle of the serious 1977 drought. When people are watching reservoirs and streams shrink to nothing, they find it hard to give credence to predictions that the West will soon turn wet, and swell the Great Salt Lake.

In addition, Willett based his

prediction on sunspots, which some may have confused with astrology.

His premise is that periods of low sunspot activity coincide with wet, cool weather in the middle latitudes of the U.S. Conversely, he says, high sunspot activity results in dry, warm weather. So when the sun is sunspotless, the Great Salt Lake grows. When the sun's surface is blotched with sunspots, the lake shrinks.

Unlike weather, sunspots are predictable -- they come and go with a primary eleven-year cycle overlain with a longer cycle which determines whether the eleven-year peaks will be strong or weak.

In Willett's theory, both the short and long sunspot cycles can be related to climate on earth -- from the 75,000-year-long major ice age cycles to the "little ice ages" to the 20 year drought cycles in the West.

On that theoretical base, Willett -- back in droughty 1977 -- predicted that "the lake should continue to rise for several more years to a level slightly in excess of 4,205 feet, and then to level off or turn downward slightly."

The levelling in the 1980s would result from a slight warming trend. But that hopeful "levelling" would

end because of "severe cold and excessive wetness in the 1990s" that would push the lake up to 4,216 to 4,218 feet.

If Willett is right, pump manufacturers and owners of gravel trucks will do very well in the Salt Lake region through the rest of the century. But some think he takes too narrow an approach to the problem.

Dr. Murray Mitchell, a former student of Dr. Willett's, now a long-range forecaster with the National Oceanic and Atmospheric Administration, says: "There is some validity in what Willett is doing, but he takes it too far." Mitchell says there are two problems with the sunspot approach:

First, "sunspots are not a good indicator to even solar activity." Second, "On earth, there are lots of things responsible for our weather, like the El Nino."

In fact, those who hope the Great Salt Lake will begin to decline put hope in the disappearance of El Nino -- the warm water that appeared in late 1982 along the Pacific coast from South America north to our shores. Mitchell said lingering effects of El Nino may have caused this very wet early winter, as well as last year's extraordinary winter.

The people who do 90-day

forecasts for the National Weather Service agree. They predict a drier-than-normal winter for the next three months. Moreover, they called the wetter than normal weather and below normal temperatures on the nose for December.

But despite the good news about the disappearing El Nino, Mitchell has bad news for Utah. He says, "drought in the western United States varies in 22-year rhythms. We're in a pretty wet year of the cycle. The last dry part was 1976-1977, so the 1980s should be relatively wet, with the risk of widespread drought returning in the 1990s."

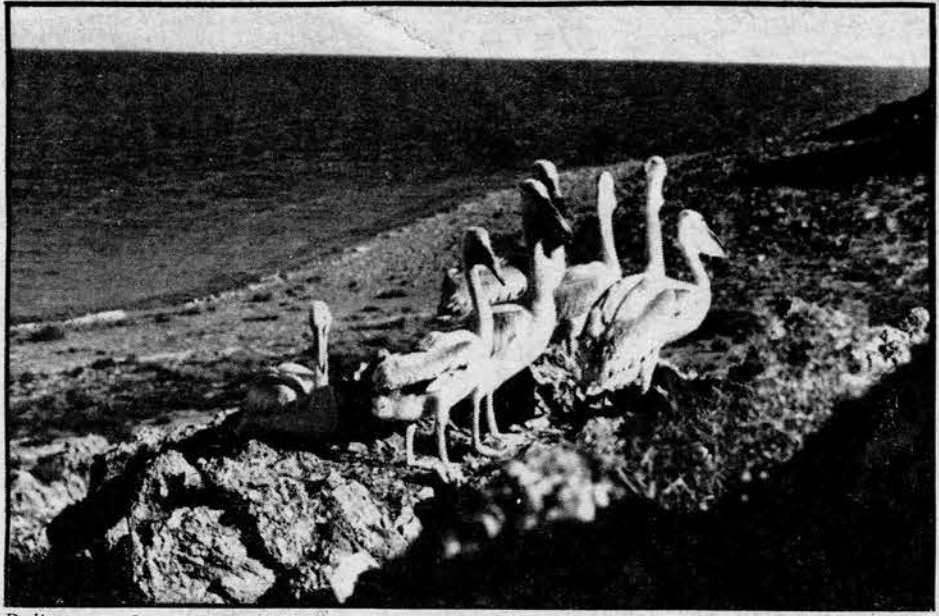
That's grim for the Salt Lake Airport, whose main runway could be unusable when the water rises above 4,209 feet, and for the causeway to the lake's Antelope Island, which is already submerged in places, and for thousands of structures that could be threatened from within by rising water levels, and for Interstate 80.

But Mitchell does hold out hope of sorts: "You could get a serious drought anytime. The cycle only deals in probabilities."

The fate of the West, then, is to be flooded out... between droughts.

E.M.

Wildlife is the loser as Great Salt Lake rises



Pelicans on Gunnison Island in the Great Salt Lake

by Lance Gurwell

Geese, ducks, pelicans and other migratory birds winging their way north and south stop for refuge in marshy fresh water bogs around the Great Salt Lake of Utah. There, they once fed, rested and mated. Now that vital resting ground is disappearing under the rapidly rising waters of the Great Salt Lake.

That disappearance is shaping up as a tragedy for wildlife. The Great Salt Lake, one of the 30 largest lakes in the world, is usually thought of as America's Dead Sea. But that's far from the case.

Although the lake itself supports only some salt-resistant brine shrimp and algae, water fowl found a comfortable home along the lake's east side, where water flowing toward the lake spreads out to create freshwater marshes along the shore -- marshes which supported both plant and fish life as well as providing nesting areas.

But according to Al Regenthal of Utah's Division of Wildlife Resources, the lake's rise over the past few years has inundated some 30,000 acres of freshwater marshes that provided cover, food and breeding grounds for migratory waterfowl.

"Last year's almost unprecedented rise of five feet inundated most of the remaining emergent marshes. Ecologically, we've got a lot of problems. There's a great deal of nesting in those areas. If the water continues to rise, we'll lose what we have left."

The emergent marshes were created years ago, during the Great Depression, when the Civilian Conservation Corps and related efforts built a series of dikes around state-owned property on the east side of the lake. Fresh water coming off the Wasatch Front to the east of the lake flushed out and replaced the salt water.

Over the next dozen years or so, the continued flow of fresh water through the area washed the alkali out of the soil and into the lake. Then, fresh water vegetation and fish -- which had been confined to narrow

marsh bands along the rivers and streams flowing into the lake -- spread out and established large expanses of water-fowl supporting marshes.

Tim Provan, a waterfowl biologist with Wildlife Resources, says that Utah produces comparatively few waterfowl. But migrating birds which breed elsewhere, he says, steer by prominent landmarks such as the Wasatch Front and the Great Salt Lake itself. The habitat that gradually grew up along the lake as a result of the man-made dikes attracted more and more of those birds, holding them for longer and longer periods of time in the fall.

As a bonus, thousands of acres of marsh were built up accidentally, as the Great Salt Lake fell to its lowest levels in the 1960s, creating enormous mudflats between the man-made marshes and the lake. Fresh water flowing out of the man-made marshes created additional marshes on those flats.

Those flats were quickly submerged in the last few years -- Provan says some of them are under many feet of water. In addition, the state lost half of its 12,000-acre Farmington Preserve, and if the lake rises three feet this spring, the other half will go. Also under siege is the 60,000 acre national bird refuge on the Bear River.

Why not continue the work begun in the Depression and build the Man-made dikes higher to save the marshes? Provan says that wouldn't work since it would deepen the water behind the dikes. The puddle ducks (Mallards, Pintails and Greenwinged Teals) the lake attracts require shallow water -- water under 30 inches or so. Building up the dikes would also drown the vegetation.

He is also reluctant to spend hundreds of thousands of dollars on dikes when the lake is so unpredictable. In addition, while the destruction of the marshes is serious, it may not be permanent. "We've lost almost \$4 million in facilities -- submerged dikes, parking areas, fences, and the like."

But the base of the dikes is still there. Because the lake rose rapidly, the dikes weren't subject to continued

pounding from the waves. They're safe, under water, and if the lake drops rapidly, it should be possible to repair them and reestablish the lake.

The lake is probably more biologically active now than at any time in the last 100 years. Provan says the salinity along the shore has dropped from 13 percent or so to 4 percent. As a result, algae blooms and salt-tolerant fish such as carp from the marshes are surviving in the lake.

But, he continues, it's nothing you can count on. "The lake is only 30 feet deep at the maximum." In many places, it's only a few inches deep for many square miles, and in the summer the water becomes hot. Provan doesn't believe a fishery in the Great Salt Lakes is in the cards.

If the lake stays at a high level, there is little chance of reestablishing new marshes. That is because the lake is now pushing close to developed land -- especially to the light industry that has grown up along its east shore.

Moreover, the ground grows increasingly steep to the east, as it gets closer to the Wasatch Front. The old marsh locations were perfect because the land was practically flat -- one foot to the mile, says Provan, allowing the establishment of vast expanses of marsh. But on steep ground, unless a series of dikes were built to terrace the land, only limited marsh is possible.

Man once helped the waterfowl by establishing the wildlife areas. But with those areas under siege by the rising water, the options remaining to the wildlife now are small. Al Regenthal of the Wildlife Division, says because of extensive development on the lake's east side, the rising waters will force all wildlife living along the edges of the lake into smaller and smaller buffer zones.

He also says, "...We knew there would be a long-term problem when we first built the marshes. We put ourselves at the end of a ditch and we knew damn well we were in a flood zone when we built the marshes."

The damage to wildlife has been uneven. Another lake expert, Edwin W. Rawley, also with Wildlife Resources, says the lake rise shouldn't

disturb the hatching of hundreds of white pelicans which migrate each year to Gunnison Island, in the north end of the lake. The island rises abruptly out of the lake, so although the rising waters will reduce its shoreline, Rawley says the birds should be able to nest on higher ground.

But the rise will cause another problem for the great birds. "The pelicans fly to the marshes on the east side of the lake for food, mostly trash fish such as carp and shad. If they can't fish there, they'll have to fly further away in search of food. That could be bad for the hatchlings."

Rawley says that in 1976 there were almost 5,600 pairs of nesting pelicans on the island, which is also a stronghold and breeding ground for thousands of seagulls. In the winter, Rawley says, the pelicans migrate to Southern California and Mexico. They are attracted to the Salt Lake because of its similarity to their ocean habitat.

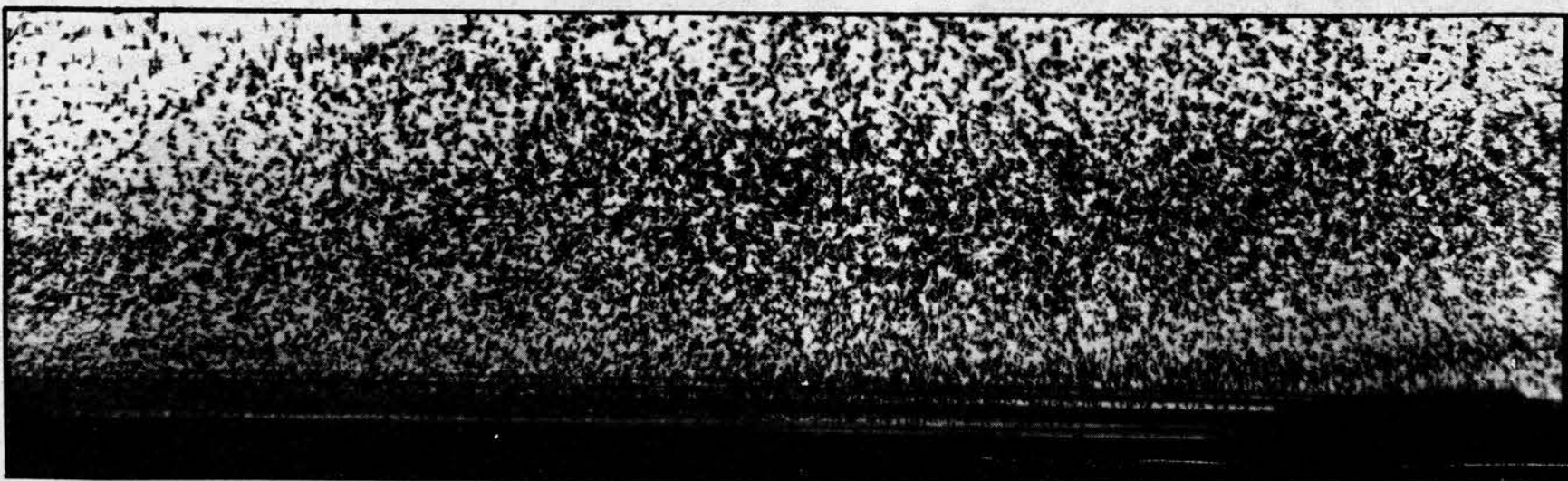
Although there is a large amount of wildlife around the lake and on its eight islands, only a few organisms live in the salty water -- predominately the brine shrimp, which at less than one-quarter inch in length means you need a lot for scampi. It also harbors the brine fly, algae and a few protozoa impervious to the pickling effect of the lake.

The Great Salt Lake has also been a recreation refuge of sorts. In addition to providing unsinkable swimming, Saltair Marina on the lake's southeast tip provides berths for hundreds of sloops. But now the rising water threatens the marina itself.

A different kind of recreation went on west of the lake, on the Bonneville Speedway, where the world's fastest drivers pushed rocket cars to above 600 miles per hour on the rock hard, perfectly flat surface. But no more -- the Bonneville Speedway is now soggy and unfit for racing.

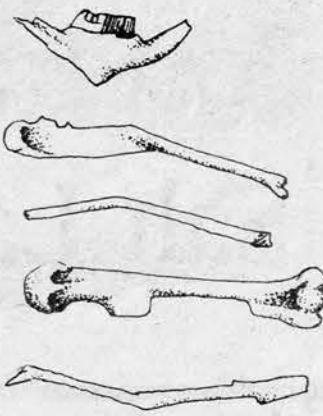
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This article was made possible by the High Country News Research Fund.



story and drawings

by Ellen Ditzler



PINYON CONE • BONES OF A SMALL MAMMAL • FEATHER • ANASAZI

WINTER FIELD

Just before daybreak, the storm edges off the mesa with the coyotes and slips into the valley. Thick snowflakes swirl and softly fill the tiny bowls of their tracks until they vanish. Miles behind the storm, at its clearing edge, a jackrabbit bolts from a burrow beneath a pinyon and leaves a lacework of prints across the fresh snow.

The record of life during the Rocky Mountain winter is written and erased in the succession of storms that linger, spill and move on. It is deep winter, of all the seasons the most silent and barren of scent. Yet it is a time when creatures live intensely, stimulated by the cold and a reduced food supply into using all their powers to survive.

For some animals, survival means migrating a few miles to lower elevations or thousands of miles south, leaving in their wake one source of winter's startling silence: the absence of birds. Animals that remain change their diet, behavior or appearance to meet the rigors of the season. Other creatures never seem to change at all. Magpies with breasts an unimaginable white. Roman-nosed ravens, jet black against glistening bone-white fields, slipping sideways on the wing. As they drop from the crowns of leafless winter trees, their beating wings sound like spoken Navajo -- a language described by writer William Eastlake as "a dry wind in the back of the mouth."

A fat fast bird measures its stay in the area by the scarlet berries on a bush in my yard. Eating at the rate of six berries per daily visit, it will move on in four days. On a bitter, snowy day, after a six-berry meal, the bird wedges its small body into the fork of a branch, tucks thin legs under its belly, fluffs out its feathers and rides the hard wind: tree-borne, disguised as a slightly unravelling softball.

On my way home from town one day, a bald eagle is perched atop the marquee of the Rocket Drive-In, its talons clutching the day-glo yellow neon rim of the R in Rocket. I look at this extremely unusual, almost impossible position and think patriotically: our national symbol. The eagle's fierce gaze alternates between the flow of the highway traffic on one side and the river on the other. I feel that Universal Truth is somehow mysteriously locked in this image, this

ambivalence.

Of all the creatures that winter over, as I do, on this edge land where the broad skirt of the San Juan Mountains slides into the northwestern New Mexico desert, none has inspired more exhilaration for the season than a small band of elk.

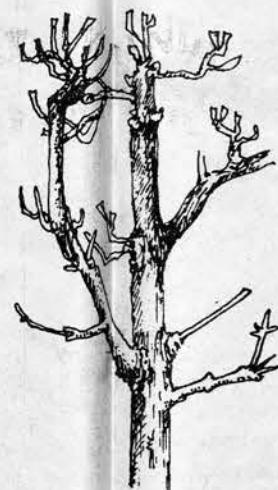
Seeing elk in this part of the country is not unusual, although little over a century ago they were primarily plains animals and far more numerous. They have since been pushed into higher, less spacious ranges by pressures from hunting, domestic grazing, human housing and an early 20th-century fashion for elk teeth as watch fobs. The lazy wildlife watcher can now see live elk by the hordes in the town of Mammoth in Yellowstone National Park: wards of the Interior Department, lolling about, chewing, listening to tourists' car radios.

I first see my band of elk when, skiing toward home, I pause in the final clearing between the house and the low hills of the Los Pinos River drainage. Across the edge of forest and meadow, the elk come -- one, then two, five, ten more. In a short time, thirty elk surround me, I am an island in a sea of them. Their wild, musky odor is strong. The calves and cows squeal to one another, filling the pale blue air with sounds that oddly resemble the shrill cries of frightened rabbits. I stand very still. When I finally move, thirty heads lift in unison. Their eyes are infinitely deep, like warm brown tunnels into another universe.

Every day at dawn and dusk, the elk come to the meadow, walking in slowly like camels. Some of them bed down near the barn, leaving great elk-shaped hollows in the snow. The band consists of cows, healthy spring-born calves and juvenile bulls. The mature bulls are secretive, invisible; I never see them.

A babel of squeals reassembles the herd after it has taken flight. There also are neighs, snorts, grunts and, occasionally, a loud sharp bark. Unheard this time of year is the bugle of the autumn rut, a high-pitched, silvery note that ends in a series of guttural grunts: the music of elk lust.

After a few weeks, I can ski near this band without causing much alarm. I whisper to them. I



SHRUB BROWSED BY ELK OR MULE DEER



COW ELK



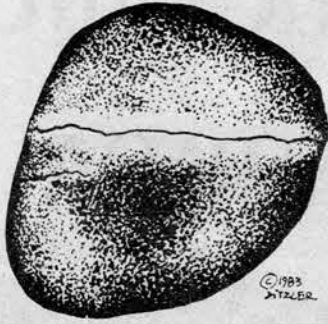
MAGPIE WING TRACK ON FRESH SNOW

The world? Moonlit

Drops shaken

From the crane's bill.

-Kigen Dogen



ANASAZI POTSDHERD · STONE

DNOTES



THE FAT FAST BIRD

squeal, grunt, bark and try a few pitiful bugles. I tack my drawings to the fence for them to inspect. I want these elk to stay forever. I do this, I think, because the weather often leaves me snowbound and in total solitude; I'm dipping into the white arts of nephelomancy, divination by clouds; I collect the detritus of winter -- bones, feathers, twigs -- and have come to the solemn conclusion that The Meaning of Life is not necessarily found in eagles at drive-ins, but may be in the tiny red sand grains that lift from the slickrock one by one and roll about madly in the winter wind in a canyon I know in Utah. The condition is simple: cabin fever.

Two days before the winter solstice, I climb into the blind I've made amid the hay bales in the barn loft, supplied with blankets, binoculars, a small flask and a dog-eared star chart with which to attempt to track the impossibly moving stars of the dazzling winter sky. It is midnight. In a few hours, the full moon will rise on the same point on the horizon where, six months from now, the sun will rise on the summer solstice.

Long ago, on this Long Night of the Shortest Day, ancient people lit bonfires to strengthen the dying sun as it turned the curve of darkness. *Soyal*, the Hopi winter solstice ceremony, was announced by a figure in a turquoise helmet and white robe, wobbling and staggering like a child learning to walk, signifying the dawn of life. Tonight, indeed, is an exceptional night; the cold makes the air unusually clear. Below me is a perfect view of the meadow.

Two bull elk ease out of the forest without a sound, carrying their solid, five-foot-across racks like small battleaxes that miraculously miss thunderous collisions with entangled branches and twigs, holding the night's silence intact. The size of the bulls is breathtaking, emanating a strange sense of magnificence combined with pure doom.

The moon now hides on the horizon, ready to climb through a web of limbs until its almost warm pearl color turns a fiece white. When it does rise above the trees and bathes the meadow in blue-white light, I can see the bulls' sides heave with each breath, I can see their eyelashes.

• • •

Perhaps because of a vertigial fear of an ice age returning, we speak of winter as the dead of the year, as if the earth were locked in a grip of bleak and sterile frigidity. Even Webster's defines winter as a condition as well as a season, a time of "decline, dreariness, adversity." Compared with the other seasons, winter remains aloof, its life more hidden -- beneath a mantle of snow, shadowed in quiet states of dormancy or revealed on moonlit nights to the very patient. But it is never entirely inert, without movement or small cycles of change.

Now, the hard bend of winter has been turned. The ribs of the mule deer are more prominent and the twin fawns who visit my orchard no longer have the faces of babies. The day after the bull elk solstice, a natural gas drill rig erected on the adjacent ranch drove off my elk band, crushing it further between the narrowing remnants of wild land and an epidemic of ranchettes.

A cowboy comes to the ranch now to hay the cattle; they wait for him in the driving snow with windward flanks as white as ghosts. My solitude has partly been replaced by winter's version of social interaction: light conversation, long silences, an unspoken respect for insularity. As I help load hay bales one day, I notice the cowboy is missing a front tooth. A week later, another is missing and the swell of chew has risen under his lip like yeasted bread. Now that the berry-counting bird is gone, I decide to measure the remainder of the season by the weekly absence of teeth from a cowboy's mouth.

I still find the bones of winter kills and examine clouds, Anasazi Indian petroglyphs and potsherds and tiny particles of life that may or may not hold The Great Cosmic Message. The songs of the coyotes that live on the mesa have become stronger, hungrier. But each day, the earth tips the northern hemisphere closer to the sun, closer to a warm south wind.

□

Ellen Ditzler is an artist-writer who lives near Durango, Colorado.

BY ELK

V ELK

ING TRACKS
SNOW



Colorado's governor peers ahead and finds life dismal

It is the year 2005...

by Richard D. Lamm

As Secretary of the Interior, I am honored to be here on this momentous occasion to celebrate the 100th anniversary of the incorporation of the Audubon Society.

The President has sent me here to defend the record of this administration. We do not appreciate the strident, coercive and damaging criticism we are receiving from conservation groups in general or from this group specifically. The President is doing the best she can and has asked me to come and respond to your criticisms. I sincerely believe this President is a dedicated environmentalist. But unlike some of her predecessors in the Oval Office, she does not have the options that were available in the late 20th century.

You cannot believe and you cannot fully understand the problems we have in running a country of 430 million Americans as we enter the 21st century. We do not have the choices they had back in the 1970s, the 1980s, or even the 1990s. We live in a world that is crowded, hungry, poor and in conflict. These matters demand our total attention.

Let me start by saying that I really do sympathize with your viewpoints, but you must try to understand some of the problems we have running this country in a world that has over six billion people.

You and others have objected to the President's statement that "birds don't vote," comparing it to former President Reagan's statement that "if you've seen one redwood, you've seen them all." That is a tragically mistaken analogy. The President was acknowledging a political reality, not expressing a philosophical preference. Birds *don't* vote -- and in an overcrowded, chaotic world, if you don't vote or have a sponsor who votes, then you don't count. Your political agendas are meaningless. Hungry and homeless people make birds and beasts expendable, make wilderness anachronistic, make scenery irrelevant and aesthetics superfluous.

In order to provide even the most fundamental necessities to mankind in this crowded, polluted world, the realization of the Biblical prophecy that man will exercise "control over the earth and all living things" is essential. We do what we have to do. Although for a time during the 1970s and 1980s there existed a viable constituency for environmental issues, politics today is the science of accommodating people, not peregrines; humans, not hummingbirds. We are prisoners of decisions of policy-makers long dead.

You all know of the many problems just trying to feed America, the breadbasket of the world. The vast

areas of prime farmland we once knew are mere history. Over 25 percent of the farmlands of 1980 are now devoid of the topsoil essential for high-yield production. We have lost 5 billion acres to desertification. The inexpert use of irrigation in the '80s and '90s created salinity problems we still are unable to solve. We as a planet wasted the one-time inheritance of a foot of the best topsoil that God ever gave anyone.

Of course, most farmland went to house our exploding population. Since 1980, we have added the equivalent of twenty Bangladeshes to an already hungry world. We add 2.5 people every second. When you sit down to dinner tonight there will be 50,000 more people to feed than when you got up from breakfast. We cannot worry about quality of life when we are worrying about the quantity of existence.

This Administration inherited a country and a world shaped by the tragic mistakes of previous generations. This Administration isn't responsible for making Canada an enemy by acid rain and predatory trade policy; we weren't in office when the nation's groundwater was poisoned by hazardous and toxic wastes. We cannot be blamed for the ruination of the world's fisheries by the failure to adopt the Law of the Sea Treaty.

Did we lose the People's Republic of Mexico or the Philippine Soviet? We did not. Mexico, Central America and the Philippines were lost long ago. Did we really think democracies that had corruption as a way of life, vast discrepancies between rich and poor, and populations that doubled every 15 years would survive? It wasn't *if* the revolution would take place -- it was *when!*

And we didn't loan them all that money. We learned in the International Banking Crisis of 1986 that 300 million people in underdeveloped countries will *not* get up and go to work each morning for Chase Manhattan.

You must understand that we grieve the loss of environmental values with you. I was governor of this once beautiful state: governor before the high level toxic waste disposal site; before that ecological disaster known as synfuels; before acid rain ruined our alpine lakes. I grieve every time I return. I see these mountains I once climbed and rivers I once kayaked now despoiled. We didn't close Western Colorado's Recreational Areas because we wanted to, but because of the undeniable link between the cancer epidemic and spent shale. We have to live with and manage the results of another generation's myopia.

No one has forgotten the campaign of 1992 -- when the "Forests or Families" debate was carried on. But



Richard Lamm

understand that my party neither had nor has anything against national forests -- we merely believe that housing for people is more important. We've had to build as many housing units in the last 30 years as in the first 300 years of America's existence.

The President, however, is proposing an amendment to the recently passed *Forest Reduction Act*. This bill is patterned after the old Wilderness Act, which was repealed in 1990 -- and will exempt 5,000 acres in every state from harvesting. I'd also like to hear at least some praise for the fact that this administration has doubled the acres of urban parks in the nation by taking down the gravestones in cemeteries. We are trying.

Next, let me discuss the most controversial legislation now pending before Congress -- the compulsory birth control amendment to the National Health Service Act. We can no longer tolerate the historic anachronism that the number of children a family has is strictly a private decision carrying no social consequences. The individual miracle of birth has become a collective tragedy.

The "right" you have to bear an unlimited number of children must be

revoked. We are seeking to take away this freedom because people have abused it. No form of life has ever been able to breed indefinitely. All living things must inevitably come into balance with their environment; now man must come into balance with his. Your rights end at your neighbor's nose, and the human wave of population is already over our heads. The relentless geometry of population reminds me of Hegel's aphorism that "freedom is the recognition of necessity."

We think this law is clearly constitutional. If the law says you can have only one wife, why can't we say you can have only two children? This Administration wants to give you the maximum amount of human freedom -- but our hands are tied. I can't understand why you extremists can't get that through your heads. We can't possibly allow you the freedom here in the year 2005 that your fathers and mothers had in 1970. We must have more restriction, more regimentation, and, of course, more rationing.

Speaking of rationing, another dark spot on the horizon is the Water Rationing Act. We were hoping to increase your allotment to two baths every week, but we have not had much success with our recycling programs.

Again, I resent being blamed for this conservation measure. Man has long known he clings precariously to the earth. As you history buffs know, until the late 20th century, 97.2% of the earth's water was in oceans, 2.15% locked up in ice caps, and only .65% was available to us as fresh water in our lakes, rivers, streams, underground water supplies, and atmospheric moisture. Since the Great World Drought of 1992, brought about by increasing global temperature, and since the substantial contamination of so much of the remaining water, our supply of fresh water has dropped dramatically below the 1990 level while demand has continued to increase. We do what we have to do.

I also want to mention the on-going foreign policy debate. As you know, I fully support the complete repeal of the Immigration Act and the Foreign Aid Act. I am as aware as you of the pitiful scenes we see daily on television of the current famine in Asia. But even as the deaths approach 200 million, the alleviation of this suffering is beyond our power. We made a mistake when we attempted to help earlier famines. We stretched our resources to the breaking point and merely delayed the day of reckoning a few years. Geometric curves are ravenous beasts that can never be sated.

I urge you to remember the Haitian refugee problems of the 1980s. We allowed a few boatloads of Haitian refugees into our country because they had destroyed their own environment. Their farms were no longer workable, they had no more forests, and they had nothing to eat. Soon we were accepting hundreds of thousands of refugees per year on top of the

massive influx from South America, Central America, Asia and Europe. The people of Haiti were still producing children at the alarming rate of 2.2% per year, both in their country and in ours. Soon both the U.S. and Haiti had population problems, and still the people of Haiti had nothing to eat. The melting pot, like any pot, is finite. Clearly, the stork outflew the American eagle.

We do not have enough resources even for our own needs. We have picked the earth bare in order to support our bloated world population. The ship of state is being dismantled to feed the crew. Wilderness, birds and single family residences were fine in the 1960s when we had 200 million people and only three and a half billion people on earth; but today they are a luxury we cannot afford.

If mankind ever had a chance to save wildlife and preserve the environment, it passed with your fathers back in the '70s and '80s. Since then, we have lost over 200 species of animals -- the California condor, the Spanish lynx, the New Zealand Kukapo, to name just a few -- all lost because of poor environmental management. But the previous generation persisted in a naive belief that the forces of the marketplace would rescue us from resource shortages. Technology, they said, would provide ways of replacing the earth's natural resources and still improve quality of life without desecrating the environment. It was like giving blind men flashlights.

Whole geographic regions have had to be abandoned because of massive environmental destruction. Times Beach, once a thriving Missouri town, is vacant because dioxin and

'This administration has doubled the acres of urban parks by taking down gravestones in cemeteries.'

other chemicals have permeated the soil and groundwater in that area; the nuclear accident outside Paris only six years ago has made that area off-limits to humanity for at least another 50 years, possibly more; the coastline along northern England has become uninhabitable after the earthquake of 1996 threw many off-shore drilling rigs into the sea and released unquantified amounts of oil into the ocean and onto the beach.

How I wish we had seen the human predicament earlier. Forty years ago, a now-forgotten author named John McPhee sounded a very poignant warning: "What if the world's geologic time was compressed into the six days of creation of Genesis. On this scale, a day equals something like 660 million years -- thus all day Monday and until Tuesday noon God was busy getting the earth going; life began Tuesday noon and developed over the next four days. At 4:00 p.m. Saturday, the big reptiles came. Five hours later, the redwoods appeared and there were no more big reptiles. At three minutes before midnight, man

appeared. At one quarter of a second before midnight, Christ appeared. At one fortieth of a second before midnight the Industrial Revolution began. We are surrounded by people who think what we have been doing for 1/40 of a second can go on indefinitely. They are considered NORMAL, but they are STARK RAVING MAD."

John Locke said, "Hell is truth seen too late." And my hell -- as Secretary of the Interior -- is seeing the truth too late. Don't blame the President -- blame our collective myopia.

There is a human imperative that makes man the most important species -- not, perhaps to geology; not, perhaps, to theology, but clearly to the political process. We would have been much better off if birds did vote, but they don't -- and they won't. And we never thought globally, nor did we act locally.

This speech was originally delivered on August 30, 1983 to the National Audubon Society.

LETTERS

EXCELLENT COVERAGE

Dear HCN,

You and Tom Wolf did a fine, astute job of telling the story of Glen Canyon Dam's performance during the Colorado River's high flows in your December 12 edition of *High Country News*. The article is typical of the quality of reporting we anticipate from your publication in that the facts are accurately presented and the author's interpretation of them is well written. We naturally are sensitive to criticism of various facets of our activities but, all in all, the article was well done and we appreciate your joining many others in defense of the Bureau's operation through that crisis. We are very proud of our engineers and operators, who, as you said, displayed a lot of "the right stuff."

We noted, however, that despite your ringing defense of the Bureau and its people, the tone of your articles would lead one to believe that we are less than honest in our assessment of the danger and insensitive to humanistic and environmental values. At no time during or after the crisis did we have data to support any conclusion that dam failure, either through complete failure of spillway or overtopping of the dam, was a realistic possibility. We do believe that the management of the river during the record flows reflected and demonstrated our concern for the people and the ecosystems along the Colorado's main stem, and for those who would have suffered much greater losses had not the river been controlled as well as it was.

Regarding the human and environmental values, it is our personal belief

that the past use of technological advances is one of the major reasons why our society has reached a level of life where we as a people can afford to enjoy and be seriously concerned about our environment.

There are, however, large segments of our U.S. population, and an even larger proportion of the global population who do not yet enjoy that style of life. It appears to us that the greatest challenge we face is to somehow control and temper our use of high technology so that we can provide the basics of life for the world's population and still preserve as many environmental values as possible. We need to work together to reach that goal. We strongly feel that Reclamation's dialogue with its constituents, such as environmental organizations, as well as other units of government, agriculture, and industry, has improved markedly during the past decade. Contributions to planning and management activities from you, the public, have been outstanding, and today are reflected in Reclamation policy and performance. We know well that polarized positions are intolerable, and believe that to foster and pursue confrontation without resolution is not in the best interest of the region, the nation, or the environment.

Your coverage of the Colorado River situation has been excellent. We only hope that continued dialogue will foster cooperative attitudes that will provide the best programs to meet the trying years ahead.

Clifford I. Barrett
Regional Director, and
Darrell W. Webber
Assistant Commissioner
of Engineering and Research
Bureau of Reclamation
Salt Lake City, Utah

ABBIEY DEFENDED

Dear HCN,

J. V. Rosenfeld's evident rancor toward Edward Abbey appears to have prevented him from doing his homework. He says that Abbey "has refined his philosophy of life to a single, portable thought: "Life in Nature is good and civilized life is bad." Actually, a reading of Abbey will show no such simplification. What Abbey has been trying to do, as I read him anyway, is enlarge and make more complex our concept of civilization, not deny it altogether. For example, "Wilderness complements and completes civilization. I might say that the existence of wilderness is also a compliment to civilization. Any society that feels itself too poor to afford the preservation of wilderness is not worthy of the name of civilization." That is from his most recent book, *Down the River*.

If we go back to *Desert Solitaire*, we find again a careful distinction being made between civilization as an ideal and culture as a current reality. Abbey's consistent projection of a higher and wider sort of civilization than what we "enjoy" today seems to me a profound statement of faith in our species, and it appears to be based upon complex recognitions. This author is in fact no sentimentalizer of Indians; he forthrightly enjoys certain modern technologies; perhaps most importantly, he acknowledges his own membership and willy-nilly complicity in our culture. Furthermore, he conveys his position in a many-layered, ironic, often humorous prose, a good sign of an outlook that has several dimensions to it.

If we're talking simplification, how about Mr. Rosenfeld's sweeping amalgamation of billions of indivi-

duals, thousands of widely differing cultures, over thousands of years in myriads of different places, into a single abstraction -- "Man"?

Tom Lyon
Logan, Utah

ZIPPY HCN

Dear HCN,

HCN is certainly more zippy than a year ago. But a couple of comments.

1) How about an off-the-wall column on the "cost/benefit" of various death factors. For example, in the Dec. 26 issue, Ruckelshaus says they will tabulate one extra death per thousand in Tacoma while elsewhere in the same issue you say that one extra death in 20 will occur from drunk drivers. Where the hell is our perspective -- driving should be at the same level as breathing arsenic.

2) (The Ruckelshaus article, also says): "methylene chloride can be fatal if inhaled or absorbed through the skin." So can Fresca -- it's just a matter of amount. Please don't make bald statements like this without some perspective. HCN has always been careful before.

Samuel Robert Skaggs
Santa Fe, New Mexico

MORE LETTERS

FROM AND ABOUT

EDWARD ABBEY

ON PAGE TWELVE



Five who love the West look ahead with guarded hope, downright alarm

Fighters for what is still wild

Ever since Sam and Joy Caudill moved to Aspen 33 years ago, they have been environmentalists -- still a dirty word in some western towns. Their concern has been to keep the land in as natural a state as possible.

An architect who is a descendent of Daniel Boone, Sam Caudill served on Colorado's Wildlife Commission for the last eight years. His wife, Joy, was a founder of the volunteer group called the Aspen Wilderness Workshop 16 years ago, and in 1980 she helped push Colorado's Wilderness Bill through Congress. Early on, workshop members saw the need to preserve some of the state's most beautiful mountain ranges as Wilderness.

Both see problems ahead for a state rich in natural resources and increasingly attractive to development such as expanded ski areas and new homes. What is already suffering, Sam says, is wildlife.

"Every year we lose more habitat and critical winter range," he points out. "That's why we're having to feed and bait big game out of ranches. We've got to take a strong stand against proliferating development."

Right now, he says, a calving ground for elk has been targeted for

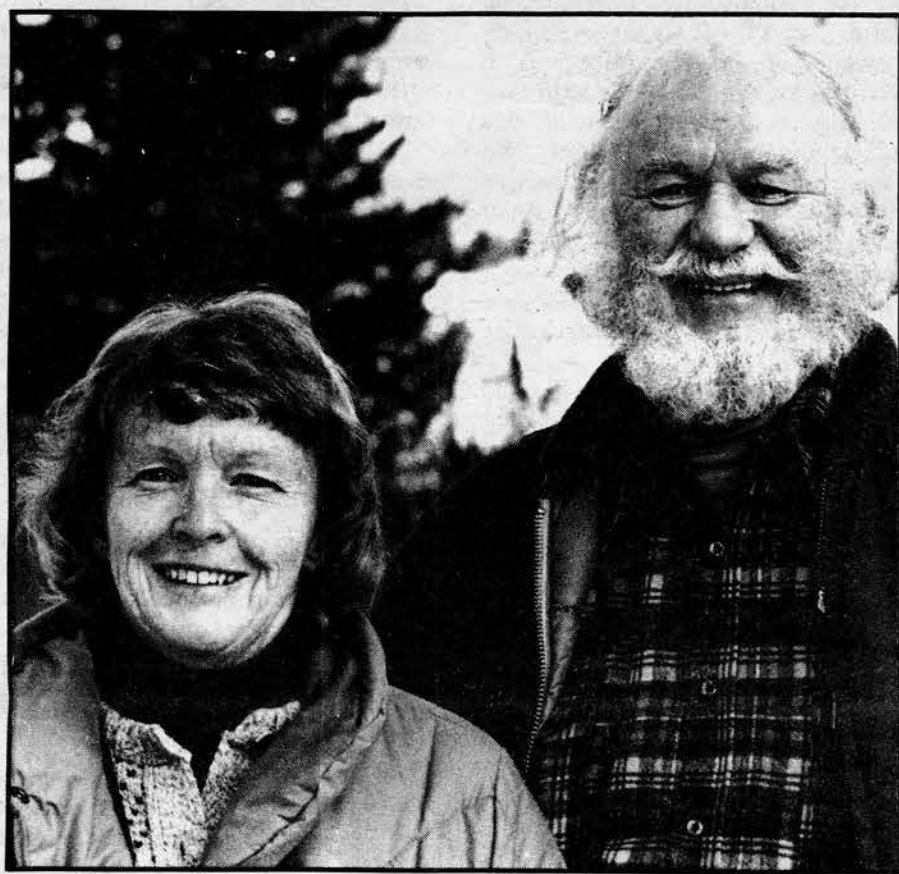
ski-area development at Burnt Mountain near Aspen. But one solution -- allowing land owners to sell development rights but not the land -- lacks an important ingredient. "Where do the dollars come from?" he asks. "No one has that answer."

Joy Caudill talks about a different dilemma which troubles her. With an environmental perspective gained by living in Western Colorado for decades, she says she is convinced that people in general have begun to care about preserving wilderness, clean air and water, and allowing wildlife enough room to survive.

"But so many support President Reagan at the same time," she says. "Do they also know the damage Watt did in changing procedures and eliminating or changing personnel? I don't know how to handle the contradiction."

Locally, she is most concerned about two troublesome issues: National Forest management plans that stress timbering and downplay recreation, and a new Wilderness Bill for Colorado.

The emphasis on cutting trees, she says, ignores what supports a healthy tourist industry -- the land left in its



Joy and Sam Caudill

natural state without roads that go nowhere.

"The forest can't support massive timbering, and it's also not economic to try." The land also can't support too many ski areas and condominiums, she adds.

On a new Wilderness Bill, Joy Caudill says she's "apprehensive." Senator Gary Hart has his proposal in "but we're still waiting for (Senator Bill) Armstrong and (Congressman Ray) Kogovsek."

--Betsy Marston

Our agriculture is 'out of whack'

In the Huerfano Valley of southern Colorado at 7,200 feet, there is a 6-year-old testing ground in agricultural sustainability.

Its name is the Malachite Small Farm/School and its founder is Stuart Mace, whose vision of the future is stark: "Our whole agricultural program is completely out of whack. The West can't feed itself; this bioregion can't sustain itself."

Mace came to this conclusion in part by starting what he calls a "Ma and Pa" business with his wife, Isabel. The business, Toklat, is "a rustic restaurant eleven miles south of Aspen at 9500 feet. Begun 35 years ago "when we were brash intruders" (Stuart Mace is from Denver), the restaurant featured sled dogs, jams, gifts, an art gallery and these days, "everything we can think of to keep the wolves from the door." No food can be grown at that altitude, and out of that reality came Mace's perception of how vulnerable everyone in the West is to present-day farm practices. A botanist by training, he read widely

(Wendell Berry is his touchstone) and planned for the future.

The Malachite Small Farm/School, a non-profit educational organization, is Mace's attempt to shape the changes he sees necessary. Directed by his son, Kent, the school is based on a 400-acre homestead first put together in the 1880s. The farm's six interns use no pesticides or herbicides as they grow test plots of quinoa, pronounced keen-wa, a relative of pigweed originated by the Incas in the Andes Mountains.

Mace has high hopes for the crop, which "has the highest available protein in the world." Great Britain grew it during the war, he adds, and "Once it's widely available and we get the price down, it will beat rice."

Out of 43 quinoa strains tested last year, three produced "a real crop." Tests will continue this year. For Mace, growing quinoa exemplifies what agriculture should have been doing 30 years ago: stressing what is appropriate to each part of the country.

Instead, "agricultural practices have become self-destructive." Farms are no longer diversified, he points out, agri-business predominates, and artificial, non-renewable fertilizers and poisons prop up the system.

"The crunch will come," Mace says. "It's not if, but when. The more we narrow down what we grow with mono-cultures and bandaids such as poisons, the more vulnerable we are."

At the Malachite Farm, which was overgrazed, chopped up, and finally a semi-wasteland before he bought all the parcels, the devastation that Mace foresees had already happened.

"It was the most devastated land you could look at. It's not an abstraction."

Dry land, vulnerable to abuse, describes much of the West.

It's a slow process, Mace says, but at the small farm, there is an attempt to bring the land back into balance and to develop naturally disease-resistant species. For in the future, he warns, "beef and pork will be luxuries. They will not be our protein base."

--Betsy Marston



Stuart Mace

Towards a new economy

Daniel Kemmis, a Democratic state legislator from Missoula and Speaker of the House in the past Montana legislative session, has plans for Montana's future.

An attorney who is active in consumer and social service issues, he says he will not accept an end to Montana's frontier from increased industrialization and urbanization, or by nuclear incineration. But he says turning back the clock in a kind of nostalgic preservation of the frontier is only a possibility for the naive. "While we must understand and preserve what is best from the past, we must also openly engage change, seeking to guide it, not to stop it."

Kemmis is also convinced that efforts by people of goodwill to resist the worst incursions on their way of life and to fight for a land-based and people-respecting way of life are worthy but losing efforts. "Wealth and power concentrated in political, industrial, and technological entities" will win, he thinks, "which is not to say that the battle is lost, but that we must wage it in new and unfamiliar ways."

How to wage the new battle was the topic of Kemmis' presentations to a three-part seminar series on the future of rural communities in the Northern Rockies. The future of Montana, he says, depends on utilizing "marginal advantages" available to Montanans, identifying some features of a future good life, and developing concrete plans to attain these features.

He says marginal advantages are Western characteristics such as a can-do attitude, somewhat less bigotry and sexism than in most of the country, and small-town values: hard work, ingenuity, a concern for the common good, and a desire for liberty (that last one can be a disadvantage as well). According to the Montana

legislator, these characteristics came from the historic "relationship of this region's people to their natural surroundings." The sodbuster at the family farm and the backwoodsman in the wilderness were both looking for "the sense of well-being that comes [from] wholeness and integration... rooted in the land."

Kemmis' definition of the good life involves living with the land on its terms. He would expand environmental regulation of non-renewable natural resource and energy development and he proposes that any enterprise creating air pollution or depleting a non-renewable resource pay severance taxes. He encourages diversity and innovation in land-compatible enterprises.

The native Montanan identifies community sharing of experiences as another integral part of a good life and

says that a community effort towards reaching future goals is as much a part of the good life as the future goals themselves.

Kemmis supports Montana's new Economic Development Program and calls it an example of a concrete step towards a future good life. The program originated from a community effort -- a citizen's initiative -- passed by state-wide ballot in the fall of 1982. The 1983 Montana legislature then passed a series of statutes delineating the program, designed to direct part of the coal tax trust fund toward in-state, small business investments. One statute enables several small businesses to pool together under an umbrella industrial revenue bond. Previously, only large industries were able to reap the benefits of these bonds. Other statutes establish a technical advisory board for small businesses and set aside state assistance to help market Montana products.

Kemmis is not all work and no



Daniel Kemmis

play. Our first task in attaining a good life, he says, is to "learn to laugh better."

--Mary Moran

Open spaces may close

Tom Bell, the founder of *High Country News*, views the future with guarded optimism, even though he says our descendents may look back upon us as primitive and unenlightened.

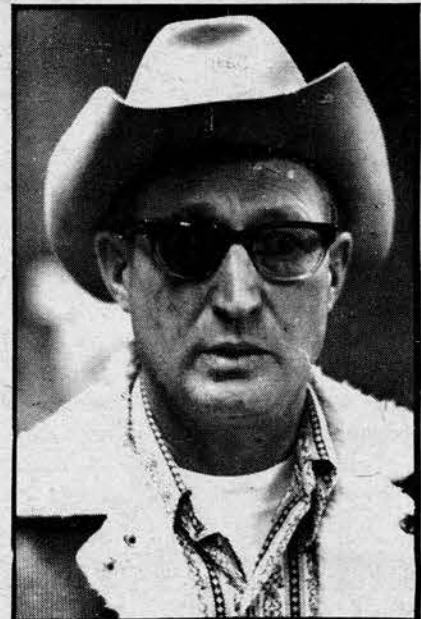
One thing he is certain of for the Rocky Mountain region: "There will be more people living here than we really like." Constant population pressure and the West's open spaces will draw people. And as that happens, he says, wildlife will decrease or become extinct, and hunters will face more restrictions and higher costs for the privilege of bagging big game.

What Bell sees in the future as problems facing the West are just the problems we now confront, but don't

take seriously enough to act on with conviction: groundwater poisoning, water shortages which could bring about great political and social upheaval, and our continued reliance on non-renewable fossil fuels. He won't name a date, but Bell says at some point what we consider "unconventional energy sources" will finally be the norm.

People do seem to care about clean air and water, he adds, but Bell predicts that acid rain will become more damaging before we "come to grips with the absolute seriousness of the problem."

Even with the threat of nuclear war there is hope, he concludes. "There are many ways to paint a dark and ugly world around us. Yet the



Tom Bell

historical fact is that we are much better off in so many ways than our ancestors."

--B.M.

LETTERS

RESPECT FOR THE RIVER

Dear HCN,

In the face of overwhelming evidence to the contrary, suspicion continues to mount that "grassroots" engineers of the kind who saved Glen Canyon Dam (HCN, 12/12/83) may yet glimpse humanity. In his article, Tom Wolf goes so far as to suggest that some of them have even developed a respect for the river they have dammed.

Imagine Wolf's surprise if he could know that some of these same engineers comprehend the Colorado in a sense different in form but not feeling from that which river runners develop. The river runner and the dam designer share a common love and a common fear. They both love the excitement that comes from understanding a river, and knowledge expressed in terms of mathematics and hydraulics and technology is no less insightful than that which comes from a practiced eye, strong oar, and experienced hand. But they both dread the mistake that for either can mean the death of many others at the river's hands.

If engineers see the river through the eyes of technology, their viewpoint is no less reverent than that of the river runner. Robert Pirsig called this Quality. I call it respect. As Tom Wolf

seems to suggest, the designers and operators of Glen Canyon Dam are not technological troglodytes, but rather hold the river in rather high esteem. Perhaps Wolf would be amused to learn of an advanced text on dam design. One of its chapters is introduced by a quotation from Barry Lopez:

"You can feel the anger in water behind a dam."

Can there still be hope?

Steven Vick
Indian Hills, Colorado

IRRESPONSIBLE ABBEY

Dear HCN,

Regarding J.V. Rosenfeld's "Monkeywrenching Edward Abbey," I can only add a fervent Amen. Although one can appreciate Mr. Abbey's undoubtedly sincere concern, his irresponsible, monkeywrench methods expose him as more of a problem than any viable solution. Shocking as it may be to Mr. Abbey, he did not invent or patent the art of conservation and/or ecology. His vehement denunciation of all mankind would seem to express a sad lack of self-respect.

Bleu Stroud
Marble, CO

ABBEY TAKES LITERATOOR CRITICS TO TASK

Dear HCN,

I sure am sorry that there letter to the paper got Miss--Mrs.--Mizz Rosenfeld so doggone overagitated. But she haint the only one. Ever since I started in this here book-writin' foolishness back in 1954, nigh onto 30 years ago, them chickenshit eatin' liberals and their literatoor crickets been yappin' at my heels like a pixedated pack of pissed-off crossbred Pekinese pups. Can't blame them neither, what with all them adjectives chasin' two little nouns. Koyannas-qatzi!

Ed Abbey
Oracle, Arizona

P.S.: Enclosed is a contribution for the HCN research fund. Maybe you can find out which oil company Ms Rosenfeld works for.

[Editor's Note: Ms Rosenfeld is a he. On the back of Edward Abbey's letter to HCN was a curious missive from the Reverend Edwin P. Abbott, Jr., of Christ-of-the-Rocks Rescue Mission in Oracle. Abbey apparently knows Abbott intimately. We think the Reverend's words, scratched out though they were, are worth repeating here. Perhaps one of our readers is just what the Rescue Mission is looking for. The Reverend's address is Box 628, Oracle, AZ 85623.]

Dear friend:

Perhaps you have heard of me and my nationwide campaign in the cause of temperance. Each year, for the past fourteen years, I have made a tour of Arizona, Colorado, Utah, Nevada and Texas and have delivered a series of lectures on the evils of drinking.

On this tour I have been accompanied by my young friend and assistant, Clyde Lindstone. Clyde, a young man of good family and excellent background, was a pathetic example of a life ruined by excessive indulgence in whisky and women.

Clyde would appear with me at the lectures and sit on the platform, wheezing and staring at the audience through bleary, bloodshot eyes, sweating profusely, picking his nose, passing gas, and making obscene gestures to the ladies present, while I would point him out as a perfect example of what over-indulgence can do to a good man.

Last fall, unfortunately, Clyde died.

A mutual acquaintance, Dr. Stan Silberman, has given me your name and suggested that you may be seeking employment in the near future. I wonder if you would be available to take Clyde's place in my forthcoming lecture tour?

Yours in Faith,
Rev. Edwin P. Abbott

14-High Country News--Jan. 23, 1984



It's a poor sort of memory that only works backwards.

--The White Queen in
Through the Looking Glass

*...now a more dismal and fitting dawn,
and a different race of creatures awakes
to express the meaning of Nature...*

--Thoreau in *Walden*

by George Sibley

So here it is again: The beginning of a new year, time for the old rituals of the two-faced good: time to figure out where we have been and where we hope we are going.

It is a changed ritual. When I was a kid, people were interested in the future -- the coming 1950s and 1960s were a prognosticator's paradise. But now predictions are so grim, so complex, or both, many don't want to think about them. Nostalgia is the national pastime.

Especially here in the Rocky Mountain region the future isn't what it used to be. Three years ago, whether your future was bound up with economic growth or with opposition to economic growth, it looked full and busy. In addition to adding onto recreation, we were going to mine the hell out of everything from oil shale to molybdenum to old trees. For a region that had been waiting for its chunk of America's post World War II wealth since 1945, it seemed the good times were finally coming.

And we were going to do it right. Millions flowed into "mitigation" to handle waves of alcoholic workers and their battered families; environmental groups were bird-dogging and eagle-eyeing everything with that delicate, delicious pre-battle mix of dread and anticipation; mimeo-machines were overhauled; exclamation-point keys oiled in preparation for "red-alerts."

Then it disappeared, practically overnight. The blueprints for a "new generation" of mines promised by born-again corporations were put away, and old generation mines that had been operating forever closed their portals, some "for the time being," some forever.

Construction industries geared up to build cities in sagebrush flats stood idle and an already precarious -- perpetually precarious -- Rocky Mountain lumber industry went into virtual collapse.

Not just developers and boomers were out of business. Those who see our role as opposition to all development, or to bad development, were also out. Or rather, were given the opportunity to do something much harder than oppose: to implement our vision of a mountain future.

Clearly, we didn't get the job done. And now the conventional future, in the form of the economy, is supposedly recovering. But you have to be more of a pessimist than I to believe "recovery" means boom. The ski resorts will have a good winter; summer will bring the tourists, campers and hikers. But things will be rocky for the rest of the mountain economy for the foreseeable future.

"Foreseeable future" -- an interesting term. What other kind of future can we talk of? Surely we can't hold a very long conversation on the unforeseeable future.

I don't think there is a "foreseeable future" for the Rockies. I'm not sure there is even a viable, likely future everyone would work toward or against. A lot of Rocky Mountain futurism, in fact, resembles that branch of Christianity better at imagining hell than heaven; James Watt did much to fuel those hellfires.

Matters are complicated because a regional future cannot be worked out within the region; we are too much a part of America. So the first question is: does the nation have a foreseeable future? And if so: where do we fit into it?

I remember what the national future once was. Back in the 1950s, when America and I were both on the Eden side of adolescence, we had a future like the world had never seen. The Great American Future, a gleaming galaxy of Tomorrowland visions: a clean,

The Rockies have a role in a boomless future

well-lighted, stainless, diseaseless, crimeless, effortless and perhaps deathless world, where ever-advancing technology and science create abundance-without-end that brings peaceful prosperity to all mankind.

Unfortunately, that dream future had two balancing nightmares. The first had as avatar the mushroom cloud. Back then, that was a new terror, not yet the dull ingrained horror around which the world moves with diminished vigor.

There was a second nightmare future -- one that seemed more real and in its way worse than quick, casual annihilation. And despite protests from comic strip characters, this is a good year to look at that dark vision -- 1984, whose portrait of life in a collectivist state with goals diametrically opposed to those professed and occasionally followed in America, stood as a warning buoy to my generation.

Those three futures -- the seemingly benign and prosperous G.A.F., the mushroom cloud, and 1984 -- established a metaphysical geography. The Great American Future was the port toward which we good Americans were sailing not just our ship of state, but the whole world flotilla. The port lay just over the horizon -- when the light was right we could glimpse it as a reflected mirage. But to get there we had to sail between two potential disasters marked by the sounding buoys of the mushroom cloud and 1984.

Thirty years later, it is interesting to see where our ship is. Around us are many pieces and parts recognizable from the Great American Future -- the shining showcase skyscrapers at the heart of great cities, and the dazzling covered malls.

In some cases, we are ahead of schedule, as in medical science, communications and computers. But in some very fundamental places, we are not so much behind schedule as off on a different path. For example, the transportation system doesn't whiz us silently around on monorails, or give us freedom through the personal helicopters the popular science mags kept predicting. Instead, we're still stuck with the car, while the great skyscrapers are served by fat, stinking, traffic-clogging buses, where there are in fact buses. And the expected "harnessing of the atom" to produce "energy too cheap to meter" is ... well, never mind. You know.

What is startling, unsettling, looking at the old map, is the way much of the G.A.F. fits neatly into 1984. Electronic paraphernalia adaptable to the control, prodding and punishing of people exists to a degree Orwell would find impressive. What, after all, is the difference between a two-way television set up for "videoconferencing" or for the "electronic cottage," and the two-way television in Winston Smith's apartment? The guy on the other end is the difference.

Of course, totalitarianism is not something a nation can backslide into. Big Brother is the key: the gang with the mix of creative paranoia, ambition, madness and method to put the pieces together. The elections these past twenty years indicate that the "best" the manipulators can do so far is create little Frankenstein-monsters who specialize in four to eight-year shows of self destruction.

Back in my adolescence, I had never thought of the Great American Future in political terms. But the technological, machine-smooth vision has political implications. The concentration of power in the hands of a technocratic elite has to cause a gradual erosion of will, character and personal involvement in the catered-to people -- people grown accustomed to instant gratification, self-indulgence, constant entertainment, specialized and unintegrated work, and a passive spectator role.

G.A.F. then, could transmogrify into a 1984

world. Orwell thought the Big Brother gang would come from the Left. But here in America, the mad dogs on the Right have the momentum. When Tonto is president, can the Lone Ranger be far behind?

So the prosperous, machine-like, instant communications future may be consistent with 1984, may be a precursor of 1984. And that possible American future brings us back to the mountains. For the Great American Future, the prosperous, over-fed, over-indulged future, assumes an ever flowing fount of raw resources to meet an ever-growing demand.

The "boom" we in the Rockies experienced until a few years ago -- with its plans and patriotic pleas for enormous mines and plants and timbering -- tested the assumption of geometric growth, and I think found it wanting. Malthus is always wrong in the short run, and always right in the long run, and the fact that in 1980 we sat on a teetering tower caused by constant doubling had as much to do with the resource boom abortion as did interest rates.

For despite mega-system planning and instant communications and our accumulated techniques, scale will always matter. That's especially true in the Rocky Mountains, where geography and climate and the nature of those who have chosen to be here conspire against the scale needed to cook millions of barrels a day of oil shale out of tens of millions of tons of shale oil, or to bring millions of board feet of timber out of forests that stand on steep hillsides and grow ever so slowly.

So while America's future will to some extent determine this region's future, this region has some say -- if only the kind of say a screaming, heels-dug-in-the-mall-floor two-year-old has over his parents' self-indulgent shopping plans.

That screaming resistance is the least we can do, and to our credit we've done some of it. But we should and can do more. Maybe the Rockies, because we have played only a bit part until now in the Great American Future -- Past, can play a larger role in designing an age of Enough-If-We're-Careful.

That is not just regional loyalty or boosterism. The mountain region is full of people whose presence here reflects a personal disaffection with mainstream America and the G.A.F. Most of us may still be tar-babied in the general *thinginess* of the time: the desire for the nice house, participation in the auto culture, big vacations elsewhere, etc.

But we also grant ourselves the dignity of an inner and outer dialogue questioning that participation, and out of our dialogue comes discreet efforts to pull ourselves free of the tar. We are nagged by the vague awareness that it isn't enough, that there has to be more to life than lifestyle.

Moreover, the region encourages a non-materialistic, more spiritually-oriented approach to life. It is rich in resources, but they are difficult: fractured discontinuous mineral veins, slopey broken coal seams in remote valleys, trees that grow small and slowly, agricultural lands that run away with the water or blow away in the wind...

But if it is difficult, it is also beautiful, mysterious, holy, with a high dry cool climate that stimulates the mind and the glands and makes one want to be strong enough to stay ... to stay and build a strong society -- one that can be a lamp unto the rest of the society by preserving and enhancing what we have.

We are, in short, ready for a new year. Happy or not. And the boomless future I see may conspire with our readiness.

George Sibley lives in Ft. Collins, Colorado, where he is working on his second book.

OPINION

Fighting for a land base

It is one of the frustrations and joys of life that learning is serendipitous -- coming when least expected, and often when least wanted.

That was dramatized for us this Christmas when -- thanks to the skipping of an issue -- we took our traditional Christmas break -- a few days at the ranch of friends near Ridgway, Colorado, on the Dallas Divide. Luckily for us, cattle expect to eat even on Christmas. So we got to go out into the snowy fields and cut baling twine away from the 700-pound hayrolls and feel a little god-like at having several hundred of the beasts follow us through the fields, munching on the carpet of hay we rolled out for them.

There was learning there -- we found that baling twine and hay become locked together by ice and that a 700-pound roll of hay is hard to move in a foot of snow. More to the point, along the way we came to realize that the Ridgway area is not 50 or so ranches. It is a single ranch that happens to be under several ownerships.

No matter where we went, there were neighbors about trading information, machinery, hay, pastures, and cows. The neighboring results in an impressive efficiency. High winds this winter covered over or blocked some ranchers' hay. So they feed their cattle out of neighbors' hay until the snow is cleared or melts, at which time they'll share their hay. Corrals, heavy equipment, expertise, strategically located load-out docks, and everything else you can imagine are shared in the same way.

The people who have survived in ranching are, naturally, competitive, and this competition extends to neighboring. At times it seemed that if you didn't get to your cattle early enough, someone else would feed them, or dig out your gate, or in other ways dig you deeper into the book of obligations.

Old-time ranchers tell us that neighboring is

down considerably from the early days, when manpower was more important than now. Maybe. But it seems to us there's still an impressive amount of cooperation.

That cooperation revealed to us why agriculture continues to run the West. It's because they have two key things: a land-based economy and a strong spirit of cooperation and community.

By comparison, those of us who are newer to the West and not in agriculture, generally have neither. If the Western Slope of Colorado is typical, the lack of agricultural land and of an economy has resulted in a surprising powerlessness.

Surprising, at least, if you think one-man, one-vote determines political power. Despite enormous in-migration over the past decade, the West is firmly controlled by people we think of -- after ten years here -- as "local."

Of course, there are "new" governors and U.S. Senators and an occasional state legislator. But power isn't exercised at those levels. Real power lies with county commissioners, school boards, irrigation companies, and the rest of the grassroots network that -- thankfully -- still run the West.

We say thankfully because the goal shouldn't be to dismantle or work around this on-the-ground network. The goal should be to get a piece of it. Happily, it seems to us, as we too peer into the future, newcomers -- and that includes some who were born here -- are going about the pursuit of power in a logical, time-honored way.

Like everyone before us, including the Indians, we are seeking a land base and the establishment of an economy on that land. The ranchers did it with parcels of privately-owned valley land connected to public grazing land. The new people, rather than providing the cities with food, seek a

different economy -- one tied to providing city people with recreation, space, and cultural and historic values only the West has.

In places, we have done well, at least economically, in establishing the land base and economy. The ski industry is the prime example. In other cases, there is progress: the rafting industry and the constituency it is creating to keep rivers running free, or at least regulated in a way that permits recreation.

In a third, crucial case, the jury is still out. The battle for more wilderness, for wild and scenic rivers and for the protection of "ordinary" National Forest and BLM forest and desert land from destructive mining, logging or damming makes sense from all points of view -- economic, ecological, and cultural.

But a clear economy based on this conservation and preservation has not yet emerged. That's not cause for despair given the short time we've been on the ground in the West's small communities as a local 'mass' movement.

After 15 or so years, that movement is just getting going. It is still years from achieving clearly defined goals, neighborliness, and the resulting power that the ranchers have enjoyed for generations -- enjoyed because they earned it a century ago by figuring out how to survive in this harsh, dry, thankfully uncivilizable region.

There are many places where this new, emerging economy and way of life will clash with the existing dominant economy. But we think that the clash and the resulting accommodations will go easier if it is understood that everyone is after the same thing: use of the public domain to support economic activities that will allow us to raise families and shape our communities and the land in ways we wish them to be shaped.

--E.M.

BULLETIN BOARD

SUNSTONE

One of the most interesting religious organizations in the West has put out a call for papers for the Sixth Annual Sunstone Theological Symposium to be held in Salt Lake City Aug. 23-25. Sunstone, which publishes a biweekly and a monthly, is a Mormon organization which looks at its religion from an independent, reform point of view. For information on its publications or on participating in its symposium ("We especially welcome participation of non-LDS believers who can offer us a comparative perspective.") Write to: Sunstone, Box 2272, S.L.C., UT 84110.

ON YOUR WAX

West Yellowstone, Montana is the site of the 1984 Yellowstone Rendezvous -- an upcoming 50 kilometer cross-country ski marathon. The date is Saturday, March 10, 1984. Prizes will go to the top overall male and female skiers as well as the first three places in male and female divisions of nine age classes. Over 400 skiers participated in the annual race in 1983. Check your local ski shop or sporting goods store for registration forms or write to: Yellowstone Rendezvous, Box 65, West Yellowstone, MT 59758.

NEW PARK RULES

Starting March 2, there will be new general and special regulations governing visitors in National Parks, the first major revisions since 1966. Proposed special rules designed to cover unique situations of activities at some parks are available for review at every Park Service area. But hurry, the deadline for public comment is January 25.

PROTECTING THE ELK

The Forest Service has responded to heavy snowfall that pushed elk into canyon bottoms east of Boise, Idaho, by closing some areas to snowmobiles. The closed areas are along the South Fork of the Boise River and along the Willow Creek Drainage, within the Fairfield District of the Sawtooth National Forest. According to District Ranger John Madden, attempts by the elk to escape noises from snowmobiles or other motor vehicles could put high stress on the elk in this deep snow.

LIVING HERBICIDES

Want to get rid of weeds without using herbicides? A new, brief bulletin tells you all you need to know about weeder geese management, whether you're a 4-geese family or a large-scale farmer. To get your copy of *The Weeder Geese Bulletin* send 50¢ and a stamped envelope to Maritime Permaculture Institute, 641 Chandler Rd., Chehalis, WA 98532.

ROCKY FLATS MEETING

Representatives from the Rocky Flats Weapons Plant, Colorado Department of Health, and City of Broomfield, Colorado meet once a month to compare environmental radiation data. The three groups independently sample water, air and soil in the area around the Rocky Flats Plant. This month's meeting will be on January 31 at 1:30 p.m., No. 6 Garden Center, Broomfield.

COLORADO COAL

The Craig, Colorado office of the BLM will hold several meetings on coal to consider a Preference Right Lease Application for 6,000 acres of land (up to 10 million tons/year) held by Consolidation Coal. A Jan. 23 meeting will be held at 7 p.m. in the Meeker BLM office. A Jan. 24 meeting will be held at 7 p.m. in Denver at the Ramada Foothills, Union and 6th Ave. Call 303/824-8261 for more information.

ACCESS

WORK

TEACHING POSITIONS ARE AVAILABLE THIS SUMMER at Audubon Camp in the West, an adult field-ecology program located in the Wind River Mountains of Wyoming. *Ornithology* - June 13 - August 11, \$1150 (plus room and board); *Aquatic Ecology* - June 13-August 11, \$1150 (plus room and board); *Physical Factors* - July 13-August 11, \$575 (plus room and board); *Ecological Living* - July 13-August 11, \$575 (plus room and board). Interested persons should contact: Don Nelson, Camp in the West Coordinator, 4150 Darley, Suite 4, Boulder, Colorado 80303, (303) 499-5409.

EMPLOYMENT OPPORTUNITY: The Idaho Conservation League, Idaho's largest and most effective citizen action organization, is accepting applications for the position of Executive Director. ICL is seeking a highly-motivated person with experience in administration, financial development and fundraising; and with a strong commitment to environment issues.

Salary: \$14,500 annually; Benefits: medical and dental insurance. Applications will be accepted on or before March 2, 1984. Send requests for additional information or resume and references, in confidence, to:

CAROL KRIZ
IDAHO CONSERVATION LEAGUE
BOX 844
BOISE, IDAHO 83701

FIELD STUDIES COORDINATOR: at Teton Science School. Must be experienced teacher, field and classroom, 5th grade through adult, with excellent field science/ecology background; master's degree required. Primary teacher, including curriculum development, at residential facility. Permanent position with benefits. Applications accepted until February 10. For more information write or call: Program Director, Teton Science School, Box 68 (HCN), Kelly, WY 83011, (307) 733-4765.

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OFF THE WALL

Time's dilemma

It has been revealed that *Time* magazine's choice of Reagan and Andropov as Men of the Year was fraught with internal conflict. The struggle began last summer when staffers split in two: Pro-object, and Pro-person. Pro-object had won in 1982 with the Personal Computer. To follow up their victory over the Luddites, as they called them, Pro-object used as a slogan: "Things are in the saddle." They engraved it on coffee mugs, T-shirts and bathroom mirrors.

Luddites countered with "Man is the measure," but it never caught on, even after they began spray painting it on restroom walls.

So until October, a Titan II missile had the inside track, a home satellite dish was a close second, and Stephen King's Christine, the homicidal Plymouth Fury, a distant third.

But at *Time*, journalism still counts for something. And when the staff assigned to the actual missile said it gave a lousy interview, the idea was dropped.

They turned then to the satellite dish; journalistically, it looked good. Especially when they found pathos -- low-income people building phony plywood dishes and planting them in front of their homes to impress neighbors.

A *Time* insider said: "We'd stumbled on the new automobile -- people parking these monstrosities in their front yards instead of hiding them in back."

Violence was added to pretense -- *Time* found child and spouse abuse up in dish families as they battled over control of the device. Unemployment also rose, as infatuated breadwinners quit work to spend more time with the dish. *Time* was calling the dishes, "The Electronic Opiate of the Masses." Dishes were even affecting demographics, as people began moving around so that they could improve reception by living under their favorite geosynchronous satellite.

It was already looking like an all-time great cover when a reporter discovered the luxury dish market -- custom dish makers whom *Time* compared to Stradivarius in "their ability to pick heavenly signals out of the stratosphere and make them sing to huddled, earthbound billions." Luxury dishes added contrast: deprived families making do with wooden fakes while top scale people dished out \$50,000 for custom jobs. *Time* lyrically mused on the social implications:

"Do we see here yet another socio-economic divisor, another great denominator separating one human numerator from the other? It is a question well worth pondering as we move further into the innards of a world created by subatomic particles, doing their magical dance in the super-ordered electronic crystals, and thus in their unconscious

but still purposeful way posing situations never before pondered. Those who think that 'man is the measure of all things' should think again."

If not for that last line, the satellite dish would have been on *Time*'s cover. But that jab so enraged the head Luddite at *Time* that he brought in horror-author Stephen King. King arranged a seance with the late Henry Luce. The Founder, speaking through the Ouiji Board, told *Time*'s top management to stay away from Things.

Bear suits didn't work

The Pro-object people tried to compromise by proposing an animal. For a while it seemed a Yellowstone grizzly, bear number 48, might be Bruin of the Year. But the National Park Service was hardnosed -- it refused an interview, even to *Time* reporters and photogs dressed up in bear outfits.

In fact, when the *Time* people, in their bear costumes to show versimilitude, snuffed into Park headquarters in search of a permit, the bureaucrats had them shot with tranquilizer guns, put radio collars on them, and shipped them back to their native habitat in New York.

Hence, the hurried cut and paste job that resulted in Reagan and Andropov.

--Ed Marston

Things are looking up!

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