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LINES & POINTS



PROFESSIONAL LAND SURVEYORS OF WYOMING

AFFILIATE — AMERICAN CONGRESS ON SURVEYING AND MAPPING

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VOLUME 17, NO. 4

FEBRUARY, 2006



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by

Dr. Lon G. Toody, Geodesist

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EDITORIAL POTPOURRI

O LINES AND POINTS FAX AND E-MAIL - Our fax number is 307-235-5604 and our E-mail address is dond@wlcwyo.com or johnhh@trib.com.

O PLSW KEY RINGS AND PINS - The South Central Chapter has key rings and pins for sale. Contact *Lines and Points*.

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PLSW (Professional Land Surveyors of Wyoming) is a statewide organization of Registered Land Surveyors licensed to practice in the Equality State of Wyoming. PLSW is dedicated to improving the technical, legal, and business aspects of surveying in the State of Wyoming. PLSW is affiliated with the American Congress on Surveying and Mapping and the Western Federation of Professional Land Surveyors.

Editorial Staff: John Hibsman, Steve Strang, Don Davis.

Lines and Points subscription \$50/year

Advertising Information

Camera ready advertisements with payment should be mailed to *Lines & Points*, PLSW, Box 904, Casper, WY 82602

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Deadline for next issue — 15 MAR 06

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President's Message

A huge thanks to Bill Fehringer for a very well organized and successful Fall Technical Session in Casper. We all really appreciate your efforts to make this another fun and educational opportunity. Paul Cuomo did a great job and I think all of us who attended appreciated his humor to keep things interesting. We had 129 attendees and brought in around \$13,000. With expenses estimated at approximately \$10,000 it looks like we may have come away with a profit in the neighborhood of \$3,000.

The results of the questionnaire regarding the educational requirements for licensure requested of the Professional Land Surveyors of Wyoming by the State Board of Registration for Professional Engineers and Professional Land Surveyors were as follows:

"Are you in favor of an educational requirement for registration as a Professional Land Surveyor in Wyoming?" 244 questionnaires were sent out, 8 were returned as undeliverable, 93 yes (77%) and 28 no (23%) of those who responded.

The Northwest Chapter is in the final stages of attempting to get a Survey Technician program funded through Workforce Development at Northwest College. It has been a long process and the final step was to have survey companies throughout the state commit to interviewing graduates of the program. I am happy to say that we had an overwhelming response by firms willing to do just that. For the 16 interviews we needed there were 17 companies responding with 32 interview commitments and I'm sure with more time we could have obtained double that amount. Thank you for your support of this program. It is in the State's hands now and we should know something soon.

The PLSW annual membership meeting will be held on February 2, 2006 from 1-4 p.m. at the WES convention in Cheyenne. I hope to see you all there.

Sincerely,

Richard T. Muscio, President



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TAPE ONE

1. *Professional Land Surveyors & GIS; Mapping the Future*; New Jersey Society of Professional Land Surveyors.
2. *Professional Land Surveying: A Career Without Boundaries*; New Jersey Society of Professional Land Surveyors.
3. *A Matter of Degrees*; American Congress on Surveying and Mapping, National Society of Professional Surveyors (1986).
4. *Surveyors of the Sixth Principal Meridian*; Bureau of Land Management

TAPE TWO

1. Wyoming T2 Center: *Surveying Crew Orientation: Surveying Options, Part I.*
1. Wyoming T2 Center: *Surveying Crew Orientation: Surveying Options, Part II.*

TAPE THREE

1. *Introduction to Legal Research*; by West Publishing (nine chapters).

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PLSW Quarterly Meeting Minutes, 27 October 2005

1) Call to Order: The meeting was called to order at 4:45 pm by President Muscio.

2) Roll call:

3) Agenda Revision and Adoption of Revised Agenda:

There were no revisions. The agenda was adopted.

4) Introduction:

- a) Officers and Directors
- b) Honorary Members
- c) Guests

Introduction was accomplished by roll call.

5) Minutes:

Minutes of 27 August meeting approval – moved by Paul second by Jon Anderson – passed.

6) President's Report:

We need committee reports three weeks prior to each meeting. Richard suggested assigning oversight to each Board member for committees. Chapter Directors are to contact Richard if they have a specific request. If not he will make assignment.

Richard reported that the Northwest Chapter is working with Wyoming Work Force and Northwest Community College to conduct student training for Land Surveying.

7) Vice President's Report:

Vice President Kevin Jones reported on the website committee activities, with a more detailed discussion under Committee Report.

Kevin reported on his efforts to obtain a banner for the National Surveying Museum. It should be available to be seen at the Annual meeting before being sent to the museum.

8) Secretary's Report:

9) Treasurer's Report:

Secretary Scherbel indicated that \$12,000 was moved to the Dain-Rauscher account.

It was discussed that the 2006 Budget needs to be approved by the Board prior to the Annual meeting. Marlowe suggested as email vote on the agenda and budget.

10) Committee Reports:

- a) Audit - Finance: Jeff Jones (no report)
- b) By-laws: Alan Cormier - President Muscio asked By-Laws Committee to review by-laws to see if an amendment is needed to allow for email votes and telephone conferences.
- c) Convention: Cotton Jones – Bob Norton, WES Representative for convention reported there will be four one-hour sessions and suggested possible topics as Leica, ancient maps, technology presentations, Rick Hudson presenting "Tale of Two Islands: Original Survey of Big Horn River Islands".

d) Education: Bill Fehringer – Bill reported that 129 attended tech conference. Expenses are expected to be \$10,000 and revenues \$13,000. Fall Tech session is going well.

e) History: Herbert W. Stoughton (no report)

f) Legislative: John A. Steil (no report)

g) Manual of Professional *Practice*: Don Oakley and George Dale (no report)

h) Membership: Stanton J. Abell, Jr., and Herbert W. Stoughton

i) News Letter - Lines & Points: Need new committee. Nothing new – still having Southeast Chapter check into someone to be editor of Lines and Points.

j) Nominations & Elections: Dennis Dawson, Jeff Jones, Don Davis

Marlowe will talk with Jeff Jones and Rick Hudson about the process for the Annual meeting in February 2006. Nominations were opened. A motion was made to accept the current officers to serve another term by John Lee and seconded by Jon Anderson. The motion passed.

k) PLSW Handbook: Herbert W. Stoughton

l) Professional Awards: Richard T. Muscio, President

m) Public Relations: Larry T. Perry

A discussion was held concerning the need for more public relations activities. A new chairman may be needed. Jeff Jones has a NSPS Public Relations guide for help with these activities.

n) S.O.S. [Corner Record Honorarium]: Paul Reid, Chairman – Accepting submittals prior to WES convention for Corner Records for work done in 2005.

o) Scholarship: Scott A. Scherbel

Scott reported that all monies have been paid to successful applicants. He would like to see \$4000 in next year's budget. A discussion was held as to how to obtain a core fund to make the scholarships self-sustaining.

p) Standards, Ethics & Professional Practice: Rusty Blough

q) Trig-Star: Joel T. Ebner

r) Allen Mace Memorial Scholarship Raffle: Chris D. Hamilton – President Muscio will check with Chris Hamilton on status and report at annual meeting.

s) Corner Record & Cross Index Plat: Rick L. Hudson

The committee has been sunsetted and the discussion moved to old business. The State Board indicated that they will discuss the email from Kevin Jones concerning corner record forms at the next State Board meeting.

t) Investment Committee: Scott Pierson

Scott Pierson has asked to be released so we will need a new chairman. A discussion was held on having the NSPS Foundation handle investments for the Scholarship Fund.


u) Website Committee: Rich Greenwood

A discussion was held on Kevin's report concerning the website. No final decisions were made. Marlowe will work with Skylar on updating the website.

v) Ad Hoc Committee: Mark Rehwaltd

Don Schramm gave a report on the Ad Hoc Committee on Education. Don indicated that the Southwest Chapter sent out a survey to find out the feelings of 125 randomly selected PLS registrants. A discussion was held on the report submitted by the committee. The apparent questions from the discussion was, "How

(Continued on Page 6)

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Monument Book Planned

The President of Berntsen International, Rhonda Rushing, has announced that Berntsen has begun work on a book honoring the beauty and importance of survey monuments of all kinds, and is turning to the surveying community for help.

"Surveyors have been making their mark on America for generations, and their monuments are a link to the past, little gems and treasures that tell special stories and create unexpected beauty in out of the way places. Survey monuments are the punctuation marks of our country's history. It's time to showcase the art and the stories, and to pay tribute to surveyors who have been marking the past — and the future — of our country for generations, doing their work humbly but also expertly. Berntsen International is proud to be bringing more attention to this little recognized aspect of our nation's greatness."

— Rhonda Rushing

The book will be built around stories and photographs of unique, beautiful, historically significant monuments. Initially we intended to create a 'coffee table' book, a book of high-

(Continued from Page 5)

does someone in Wyoming get an education to become a Land Surveyor?" Stan Abell, member of the State Board, indicated the State Board is working to put together a "pathway" by year-end to show how to get education in Wyoming.

11) Delegate Reports:

a) Western Federation of Professional Surveyors: Paul A. Reid, Delegate

Paul indicated that scholarships are available from West Fed, and that a scholarship was given by West Fed to a PLSW member in the amount of \$2500.

b) NSPS

A discussion held on the NSPS report.

12) Old Business:

a) The banner will be here for annual meeting.

b) Secretary Scherbel reported on the results of the survey sent to all members concerning whether Land Surveyors need to be educated. Of the 244 surveys sent, 94 responded "yes", 28 responded "no", 8 were returned as undeliverable and the remaining 114 were not returned. This report will be presented by President Muscio at the State Board meeting.

13) Presidential Citations:

President Muscio indicated that Rick Hudson's Honorary membership plaque will be awarded at the Annual meeting. There were no other awards at this time.

14) Recess: [15 minutes]. Recess was waived.

15) New Business:

John Lee moved to accept the application of Mark Eater. Bruce Frederick seconded and the motion passed. Richard requested email for choices for Board member oversight responsibility. After two weeks Richard will make assignments.

16) Announcements:

a) Next meeting will be the Annual meeting on Thursday February 2, 2006 from 1:00 pm to 4:00 pm. Board meeting at 4:15 pm.

17) Adjournment:

The meeting was adjourned at 7:30 pm.

Respectfully submitted,

Marlowe A. Scherbel

Secretary/Treasurer

resolution photographs of monuments as they actually appear in the field. But as the photos started to come in, we were also getting a lot of great stories, and sometimes the stories were more interesting than the photos!

We're looking for the kinds of stories you've been telling to your kids, or swapping with colleagues at conventions. The ones where you went the extra mile, or found something unusual, or made a courthouse discovery that left you shaking your head. Basically, if you've got a good one, let's hear it!

Berntsen is asking for your help in acquiring high quality photographs of monuments from around the country. Detailed requirements are available at www.berntsen.com, but here is a summary:

- 1) A high quality photo taken from *directly above* the monument. Digital color photos are preferred, but any extraordinary image will be used.
- 2) A few pictures of the monument's surroundings are also needed.
- 3) A history of the monument, its significance, and a description how it was set.
- 4) Directions to the monument, and whether it's on private or public land.
- 5) Latitude and longitude of the marker: a handheld GPS unit provides sufficient accuracy.
- 6) Contact information, including the name of your organization.
- 7) A release form authorizing Berntsen to use the photo in a book on monuments.
- 8) Please submit photos by December 1st 2005.

I can't guarantee that we'll use your story or photo, but if we do you'll receive a free copy of the forthcoming book and, of course, credit for your entry.

This is a project that will shine a light on surveying's significant contribution to American history, and honor the monuments that have 'held their post' — for a century or more in some cases — and survived to tell their tale. Submissions should be sent to:

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or by email to monumentbook@berntsen.com

Book: Essays for Land Surveyors

Boundary Line Books Is pleased to announce the publication of Angus W. Stocking's first collection of essays. *Everything is Somewhere: essays for land surveyors*.

Mr. Stocking has practiced land surveying since 1990, and has worked in 13 states. Along the way he has contributed essays to *California Surveyor* and *Professional Surveyor*, and is a regular columnist for *The American Surveyor*.

Everything is Somewhere collects 16 of Mr. Stocking's essays, including all of his published work and several unpublished pieces. These are not *about* surveying, they are *for* surveyors — engaging writing on subjects sure to appeal to the independent, spatially talented intellects that are attracted to land surveying. Any surveyor who tries them will see why the editors at *The American Surveyor* say, "This is a book you'll want to read again and again."

Everything is Somewhere is available at berntsen.com and sample chapters may be read at the author's website, everythingissomewhere.com. All copies sold through Berntsen are signed, and copies ordered through the author's site will be inscribed as requested.

Surveyors leave their marks

A large part of the development of our nation was motivated by the opportunity for the common man to own land. In order to accomplish the orderly disposition of lands to the populace the vast lands of the western United States needed to be explored and surveyed. So it was necessary that many of the early explorers be proficient in the arts and sciences of surveying and engineering. As a result, the surveying and engineering professionals have had a significant impact upon the histories of the American West and have lent their names to identifying features upon the land.

Two counties in the state of Wyoming carry the names of men known for conducting surveys.

1. Fremont County - in west central Wyoming, carries the name of Gen. John Charles Fremont, surveyor and explorer searching for a route to the Pacific Ocean with a company of 20 men in 1842; Kit Carson and Enos, a Shoshone Indian acted as his guides. Also **Fremont Canyon; Fremont Island; Fremont Lake; Fremont Peak; Fremont Butte; Fremont Creek; Fremont Ditch; Fremont Glaciers; Fremont Ridge; Fremont Trail**, all located in either Fremont or Sublette counties.

2. Weston County - in northeastern Wyoming, carries the name of John B. Weston, a geologist and surveyor, who organized a pack outfit and explored the canyons north of the present Newcastle for coal in 1887. He and Frank Mondell located rich anthracite coal deposits which brought the railroad into the area, resulting in the founding of the town of Newcastle in 1889. Also **Weston Point; Weston Ranch; Weston Reservoir**.

Cities and towns carrying the names of surveyors to this day are:

1. Evanston - located in the southwest corner of the state is the county seat for Uinta County is named after James A. Evans a surveyor and civil engineer for the Union Pacific Railroad in

1869. Also using Mr. Evans name is **Evans Pass** located on the Laramie and Albany County line. While searching for a railroad pass with Gen. Grenville M. Dodge in the mountains west of Cheyenne in 1865; the survey party was chased by Indians. They fled past a lone pine tree, growing out of the rocks, and down a draw on Sherman Hill, thus accidentally finding the best route for the railroad. The noted tree in the rocks is a rest stop on I-80 today.

2. Gillette - located in the northeast corner of the state is the county seat for Campbell County and is named after Weston E. Gillette, a surveyor and civil engineer who directed the building of the railroad here in 1890. Originally the town was named "Donkey Town", then "Rocky Pile", until the railroad arrived, at which time the railroad authorities renamed it **Gillette**.


3. Hillsdale - located in the southeastern corner of the state in Laramie County and is named after Lathrop Hills, who on June 11, 1867, was leading a survey party for railroad construction. Near the present site of **Hillsdale**, they were attacked by Indians, and Hills was killed. His companions routed the Indians, and reached Camp Collins. A marker in his memory was erected at **Hillsdale** in 1973.

4. Huntley - a small town located in Goshen County Wyoming just south of the North Platte River is named after another Union Pacific civil engineer and surveyor.

Ghost towns - living only in the history books and by remnants on the ground:

1. Archer - located Laramie County and identified today only as an interchange on I-80, the former railroad station of **Archer** was named after William Archer, a member of the U.P. Railroad survey party attacked by Indians in 1867 in which Lathrop Hills was killed. Archer was wounded in the fight, but

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escaped and survived.

2. Bryan - located in Sweetwater County, was originally a stage stop; in 1868 the railroad was completed to this location and a roundhouse was constructed. **Bryan** was briefly a major railroad center until 1872, from which vast supplies for South Pass were shipped during the gold boom. Named after Lt. Francis T. Bryan, an army surveyor, this town was known as the town where men died with their boots on in fierce fights in the days of its fleeting glory.

3. Eadsville - located in Natrona County on top of Casper Mountain. This mining town was named after Charles W. Eads, who surveyed and Platted the town around the spring of 1891. Many ore mines were opened, and a stamp mill planned, log cabins were built, and the population grew to almost 5,000. However the mining boom collapsed in 1897 and the town was abandoned very quickly.

4. Grenville - located in Carbon County, Wyoming a railroad station named after gen. Grenville Dodge, surveyor for the Union Pacific Railroad. Gen. Dodge is also credited with having surveyed the original city of Cheyenne. Also **Grenville Dome**.

5. Hemingway - located in Natrona County in central Wyoming, this town was a railroad siding for loading livestock; named for Ambrose Hemingway, a surveyor, rancher and attorney living in the area. Also **Hemingway Draw** located in the same vicinity.

6. Owen - former post office located in Platte County, Wyoming in 1887, named after Billy Owen, surveyor. It is believed that this Billy Owen is the same as William Owen, general land office surveyor who conducted public land surveys in southeastern Wyoming from 1878 through 1900. Later served in the Wyoming legislature for six years. Also **Lake Owen** located in Albany County; **Mount Owen** located in Teton County; **Owen Creek** located in Sheridan County.

Mountains/hills located in Wyoming:

1. Mount Humphreys - located in Yellowstone National Park, elev. 10,965: Named after Gen. A. A. Humphreys who in 1871 was chief of engineers, United States Army.

2. Fremont Peak - as previously noted.

3. Fred's Mountain - located in Teton County; was named after Fred Clark who worked with G. B. Bechler mapping Jackson Hole for the Hayden surveys in 1878.

4. Flag Butte - located in Crook County; a general land office surveyor placed a survey target and flag on this butte during the conduct of surveys in the area.

5. Sharp Hill - located in Carbon County, elev. 9,439; named after Seymour Sharp an early surveyor.

6. Reed Rocks - located in Albany County along the U. P. Railroad about one-half mile west of Ames Monument; a portion of this granite rock pile was used to construct Ames Monument, and was named after Silas Reed, the first Surveyor General of the Wyoming Territory.

7. Evans Pass - as previously noted.

8. Chittenden Mountain - elev. 10,181; Yellowstone National Park; named by the U.S.G.S. In 1878 for George B. Chittenden, a member of the Hayden survey.

9. Murphy Peak - located in Fremont County was named after T. F. Murphy who built a cairn on top of the peak; he was a surveyor in the late 1930s.

10. Survey Peak - elev. 9,277 located in Teton County.

11. Thompson's Mountain - elev. 9,749; located in Lincoln & Sublette counties; named after David Thompson, an astronomer and surveyor who was a member of the William Ashley trapper brigade of the 1820's.

Lakes located in Wyoming:

1. Bellamy Lake - a modest lake located alongside highway 130 in the Medicine Bow national forest. Named after Charles Bellamy, a surveyor and engineer. Also **bellamy creek**.

2. James Lake - located in Albany County; was named in the 1860's after "James", a surveyor on the Laramie Plains.

3. Lake Mead - located in the Big Horn Mountains of Johnson County; named after Elwood Mead, a member of the U.S.G.S. Who became the first territorial engineer for the Wyoming Territory, and then later became the first state engineer for the State of Wyoming in 1890. Elwood Mead was an engineer, surveyor and hydrologist known as the "father of reclamation for Wyoming". Also, **Meade Creek** located in Sheridan County, which carries a misspelling of his name.

4. Hering Lake - located near the southern boundary of Yellowstone National Park; was named by the U.S.G.S. In 1878 for Rudolph Hering, a topographer with the Hayden survey.

5. Libby Lakes - a series of small lakes located in Albany County within the Medicine Bow National Forest. According to William Owen (surveyor) these lakes were named after George Libby, early prospector, 1867 - 1868. However, George Libby fails to appear on any of the early mining claims. Another possibility is U.S. Deputy Surveyor, M. D. Libby, who surveyed much of the Medicine Bow Mountains. First recorded use of the name **Libby Lakes** is in 1872 on several mining claims. Also, **Libby Flats**, **Libby Creek**, **Libby Lodge**.

Rivers and creeks located in Wyoming:

1. Herron Creek - located in Yellowstone National Park; named after Rudolph Herron, a topographer with the Hayden survey. Perhaps a misspelling of "**Hering**".

2. Amsden Creek - located in Sheridan County; named after Bemis Amsden, an early pioneer of the early 1880's; he was the first surveyor in the county, and mapped the townsite of Big Horn with a vial of water fixed on a block of wood for a transit.

3. Bechler River - southwest corner of Yellowstone National Park; named after G. B. Bechler, a leader in the 1877 Hayden expedition who partly mapped the area in 1872.

4. Smiths Fork - Uinta County; named after Jedediah S. Smith, who drew accurate maps for the Ashley party. He was the first white man to explore this stream. Smith was a devout Christian with a trapper's rifle and a friend of Jim Bridger.

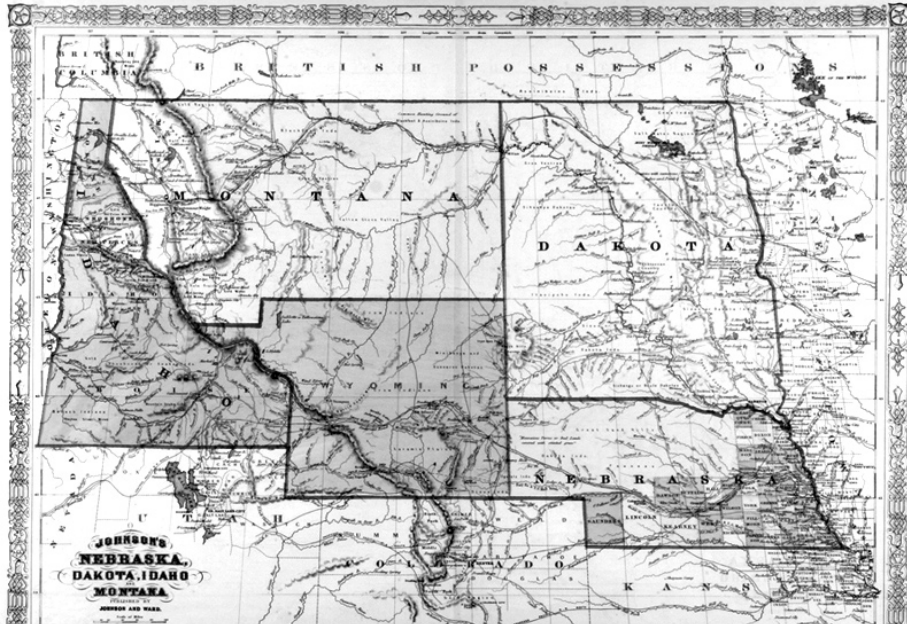
Valleys or meadows in Wyoming:

1. Hayden Valley - located in Yellowstone National Park; named after Dr. Ferdinand V. Hayden, leader of the U.S.G.S. Expeditions of 1871, 1872, and 1878, to study geology zoology, and make maps. Indians called him "man who picks up stones running." Also, **Hayden Creek**; **Hayden Arch Bridge**; **Mount Hayden**; **Hayden National Forest**.

2. Surveyor Park - located in Sublette County; a U.S.G.S. survey camp was here in 1906; also **Surveyor Creek** located in the same vicinity. A second **Surveyor Park** is located in Park County.

Thanks to
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Two-year degree a good move

By Diane Stafford
The Kansas City Star, Mo.

Parents, don't let your children grow up to go to college.
Whoa, pardner!

It's hard to imagine that recommendation reverberating
through the counseling offices of

high schools that send most of their graduates on to four-year
colleges.

It's harder still to imagine the reaction from baby boomer
parents who have quite rightly viewed a bachelor's degree as a
baseline for professional careers.

But after listening to Joanna Perkins, outreach coordinator
for an advanced technical education center, it gets easier to
understand.

The warning is hyperbole, of course. But at the Association
for Career and Technical Education convention under way this
week in Kansas City, Perkins is leading a session on "Parental
Buy-In: Best Practices to Help Address the Challenge."

The "challenge" is how to convince parents of today's best
and brightest students that two-year, associate-degree programs
can be good career moves for their children.

Hence Perkins' seminar. For starters, Perkins says, parents need
to understand that the needs of the work world have changed
since they graduated.

The U.S. Bureau of Labor Statistics figures that only 12
percent of the available jobs for the U.S. work force today require
a bachelor's degree. But 68 percent of the jobs that employers say
they are now trying to fill require two-year technical training.

"Manufacturers are begging us to train them so they can hire
them," Perkins says. "They want us to fill the pipeline with skilled
labor, especially since many employers are facing boomer
retirements that will decimate their skilled work force."

Many of those employers give scholarships to send students
through the two-year programs and then help finance further
education if their then-employee wants to pursue a bachelor's
degree, she said.

Reprinted from the *Wyoming Tribune-Eagle*, December 12, 2005.

This is the last edition of *Lines
and Points* by the current staff.

We are sad to leave our baby,
but after 18 years, we think it's time
for new ideas.

Thanks for your support and
the opportunity.

John Hibsman
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REPRINTED MAP

SOURCES OF SNAKE RIVER

SNAKE RIVER EXPEDITION –

JAMES STEVENSON, DIRECTOR

The Northwest Chapter has reprinted, from an old (perhaps first printing) lithograph found in a cabin west of Cody, the map of the Hayden-Stevenson expedition and survey of Jackson Hole, Yellowstone National Park and surrounding vicinity. The map shows the campsites of the expedition, from July 12th, 1872, at Fort Hall, Idaho Territory, up the Snake River, into Yellowstone, and returning to Fort Hall on October 11th.

The reprint measures approximately 28 inches by 29 inches overall, black printing on white background, and is printed on heavy photographic paper.

The map is representative of the cartographic style of the time and uses shading to depict mountain ranges, water lining on lakes and artistic profiles of various ranges including the Tetons.

A 39-page excerpt from "Great Surveys of the American West", by Richard A. Bartlett, published by University of Oklahoma Press, is to be included with the map (reprint permission pending) and details the progress of the expedition.

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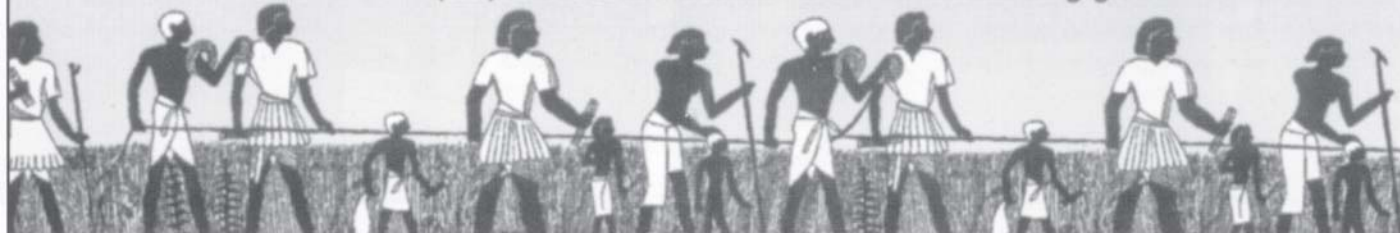
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