## Cultural Landscapes in the Western United States



OFFICE of ARCHAEOLOGY and HISTORIC PRESERVATION



A Workshop Cosponsored by the Colorado Office of Archaeology and Historic Preservation and the U.S. National Park Service Trinity United Methodist Church Denver, Colorado October 4 – 5, 2011

# Cultural Landscapes in the Western United States

Part 6 of 9
Identifying Significance & Integrity in
Evocative Landscapes

This is an automated presentation of the speakers' PowerPoint slides with their notes, if provided - view in note tab, and some audio/video (mostly from the second day) of the presentations. Due to the file size of the October 4 & 5, 2011 presentations the workshop has been uploaded in the nine thematic segments. The viewer can pause, advance forward or return to any slide by clicking on the index at any time.

	Cultural Landscapes Western United States	Day Two	05 October 2011
Segment 6	Identifying Significance & Integrity in Evocative Landscapes		
13 14a 14b	Japanese American WWII Relocation Centers	Kara Miyagihima Astrid Liverman Kat Vlahos	National Park Service CO SHPO University of Colorado Denver
140 14c	Ranches as Cultural Landscapes	Abbey Christman Steve Hart	Colorado Preservation Inc. Colorado School of Mines
15	Barium Mines: Lost Landscapes of Colorado	Eric Twitty	Mountain States Historical
16	Landscapes of Conflict: Sand Creek as a Case Study	Tom Thomas	National Park Service
Segment 7	Sustainability and new Energy Initiatives		
		Margaret McRoberts	
17	Sustainability and land Use	Tom Keohan	National Park Service
18	Renewable Energy Sources and Cultural Resources	Alicia Beat	Bureau Land Management
	Renewable Energy Sources and Cultural Resources  Nominating Traditional Cultural Places to the National Registe		Bureau Land Management
	Nominating Traditional Cultural Places to the National Registe  Overview of TCPs and the National Register		National Park Service
segment 8	Nominating Traditional Cultural Places to the National Registe	r	National Park Service US Forest Service
segment 8	Nominating Traditional Cultural Places to the National Registe  Overview of TCPs and the National Register  Red Butte TCP: Collaborative Management of Traditional	<b>r</b> Barbara Wyatt	National Park Service US Forest Service
segment 8 19 20	Nominating Traditional Cultural Places to the National Register Overview of TCPs and the National Register Red Butte TCP: Collaborative Management of Traditional Cultural Properties at Kaibab National Forest	<b>r</b> Barbara Wyatt Mike Lydon , Carletta Tilous	National Park Service US Forest Service i Havasupi Tribe
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#### C.L.W.U.S. AGENDA - Wednesday, October 5 A.M.

- 8:00 Identifying Significance and Integrity in Evocative Landscapes
  - 13. Japanese American WWII Relocation Centers Kara Miyagishima (NPS) – slide 4
  - 14. Ranches as Cultural Landscapes Astrid Liverman (CO SHPO) slide
     52, Kat Vlahos (University of Colorado Denver) slide 63, Abbey
     Christman (Colorado Preservation, Inc.) slide 102

- 15. Barium Mines: Lost Landscapes of Colorado Steve Hart(Colorado School of Mines) & Eric Twitty (Mountain States Historical)- slide 128
- Landscapes of Conflict: Sand Creek as a Case Study
   Tom Thomas (NPS) slide 162

Cultural Landscapes in the Western United States

Kara Miyagishima - NPS

Identifying Significance and Integrity in Evocative Landscapes

JAPANESE AMERICAN
W.W. II RELOCATION CENTERS







## World War II Japanese American Confinement Sites

Cultural Landscapes in the Western United States Workshop
October 2011







#### **Evacuation, Relocation and Internment**

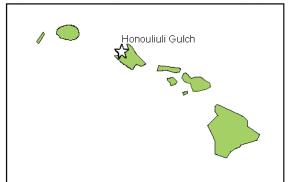




#### **Confinement Sites**

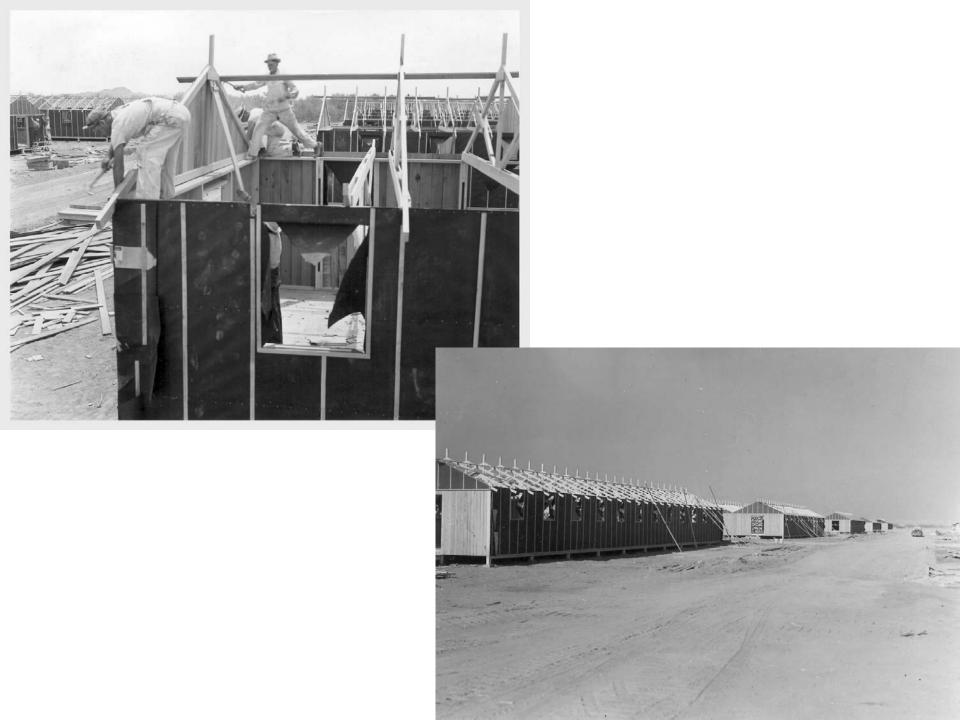


- WCCA Assembly Center
- ▲ WRA Relocation Center
- WRA Isolation Center
- WRA Temporary Camp or Other WRA Facility
- ☆ Justice Dept., U.S. Army, or Other Facility
- Unused Facility
- Other Sites

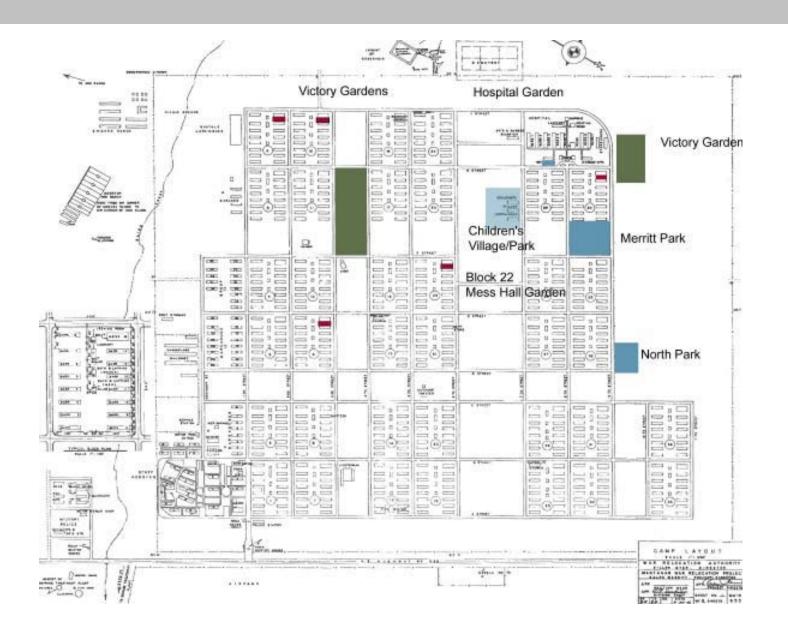


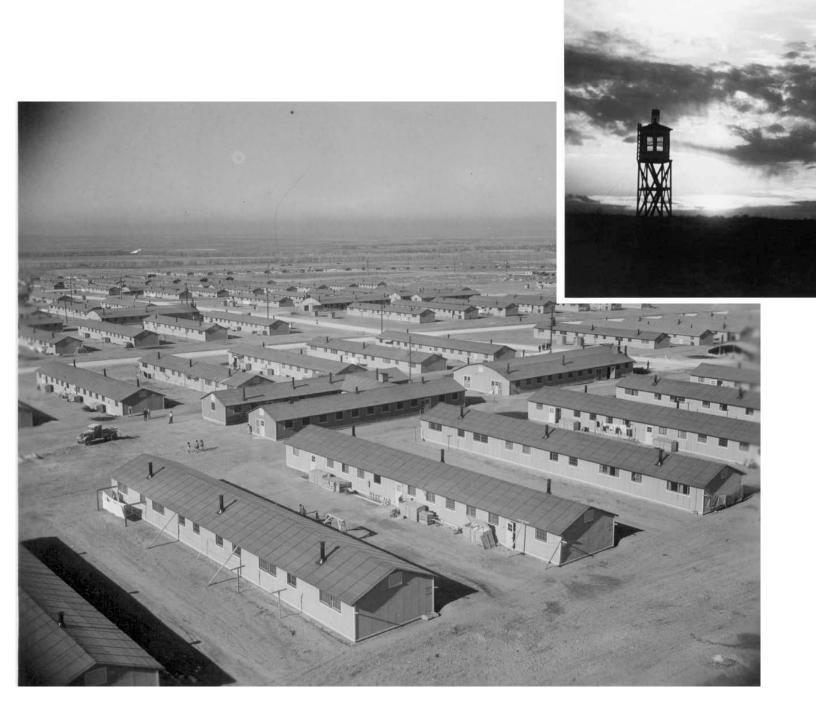
## Site Selection & Construction of the Camps

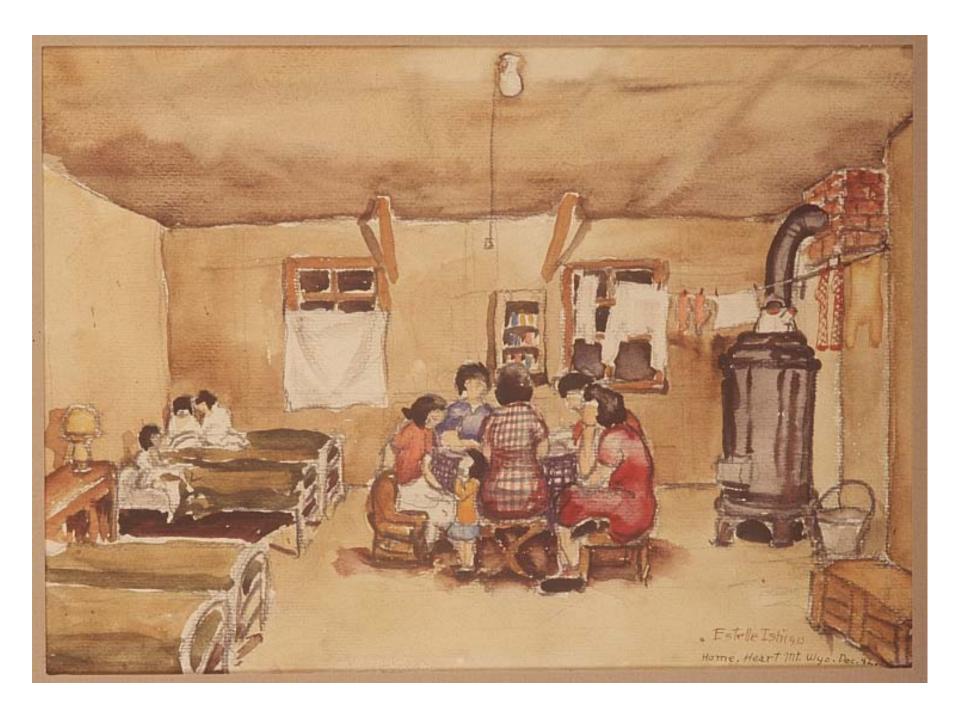




### Camp Layout & Design

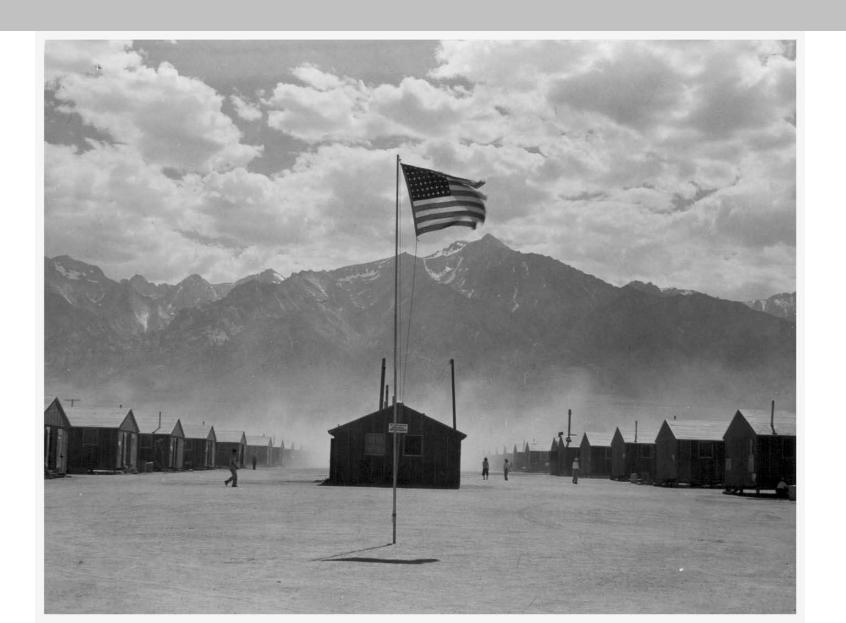






#### **Manzanar Relocation Center**

Inyo County, CA



#### **Manzanar Relocation Center**

Inyo County, CA





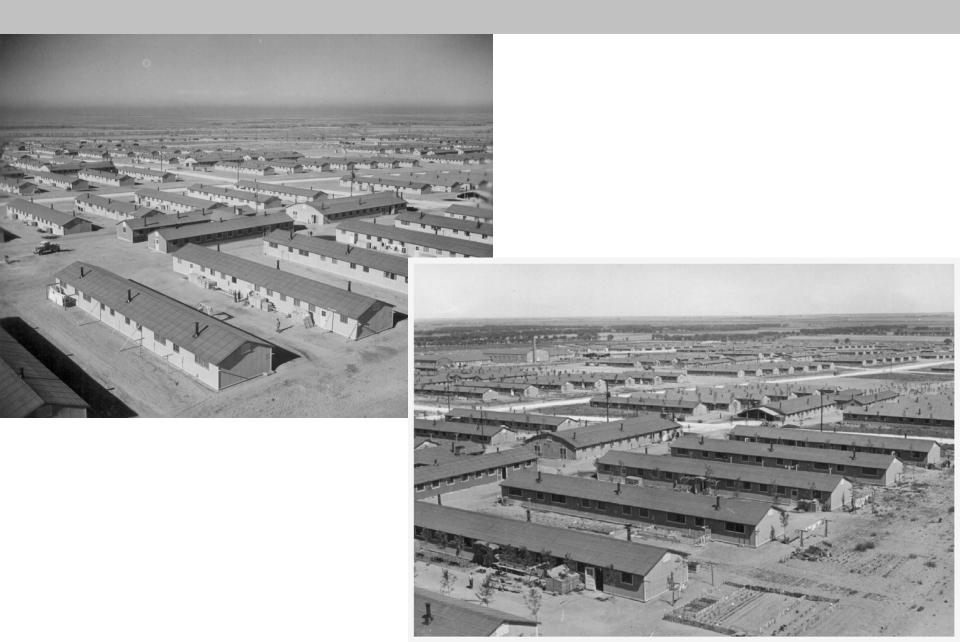
#### **Manzanar Relocation Center**

Inyo County, CA









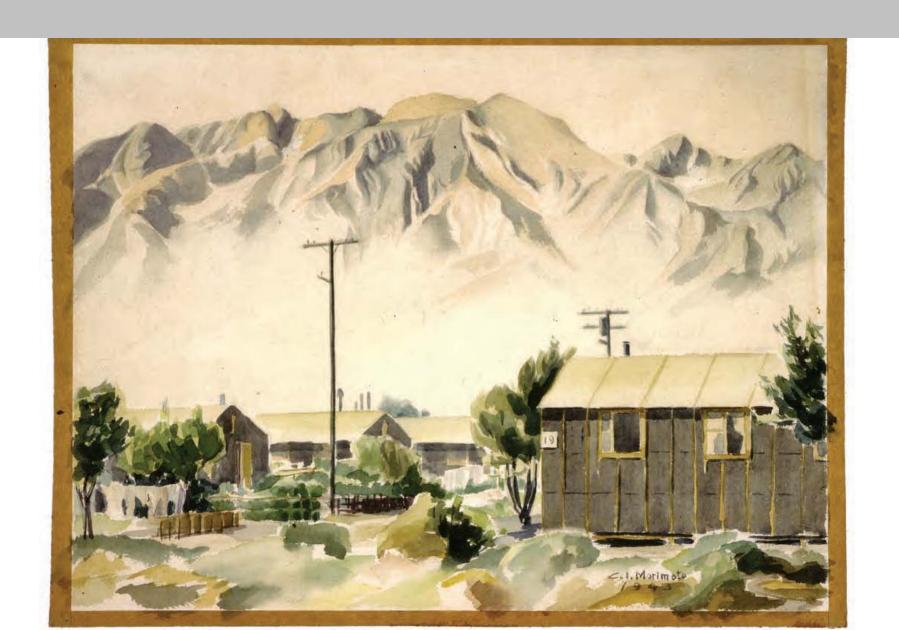
#### **Manzanar National Historic Site**

Inyo County, CA



#### **Manzanar National Historic Site**

Inyo County, CA



#### **Colorado River Relocation Center (Poston)**

La Paz County, AZ



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La Paz County, AZ



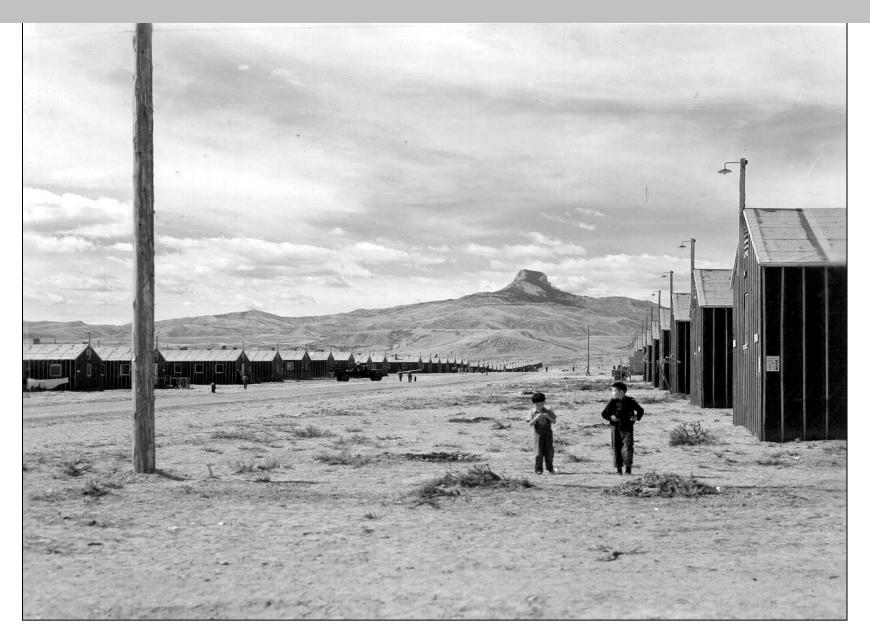
#### **Colorado River Relocation Center (Poston)**

La Paz County, AZ



#### **Heart Mountain, Relocation Center**

Park County, WY







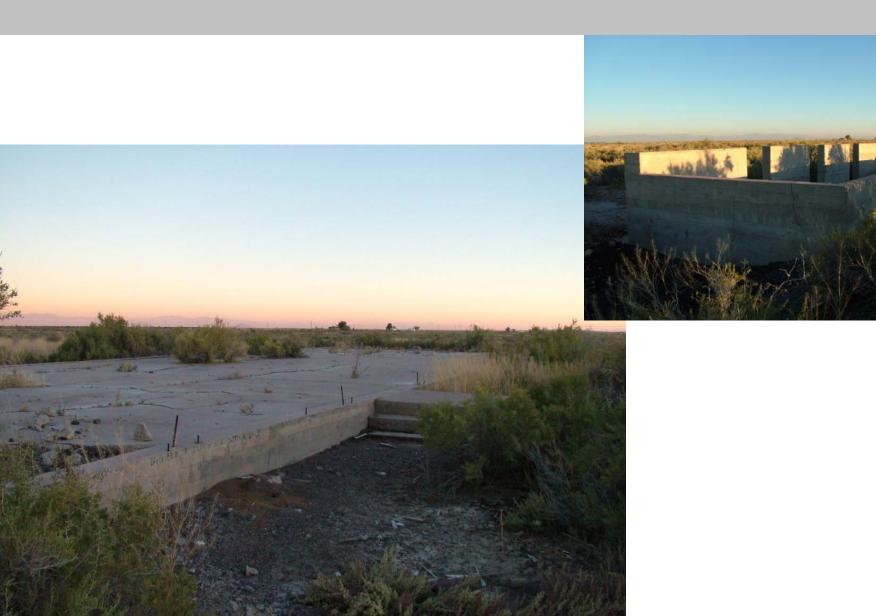














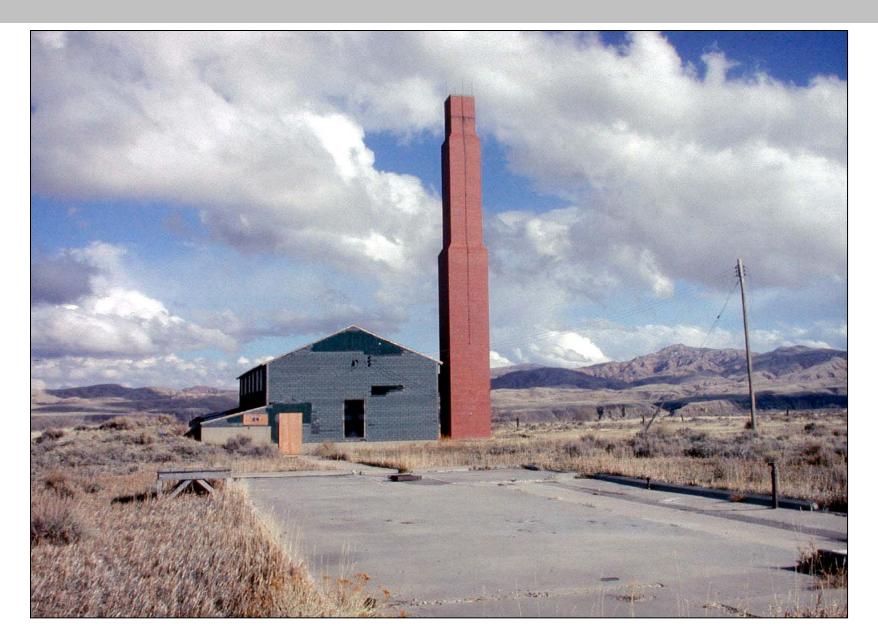






# **Heart Mountain, Relocation Center**

Park County, WY



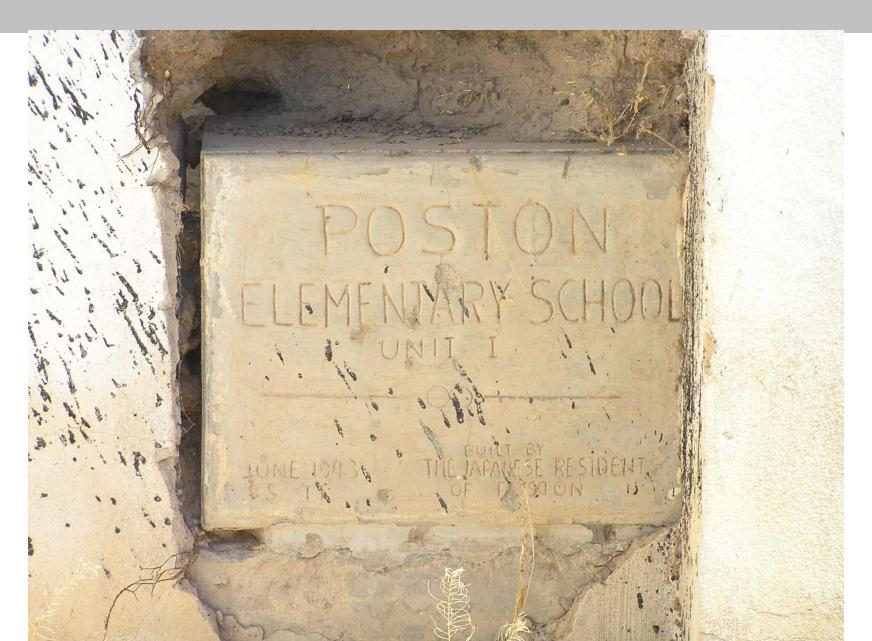
# **Heart Mountain, Relocation Center**

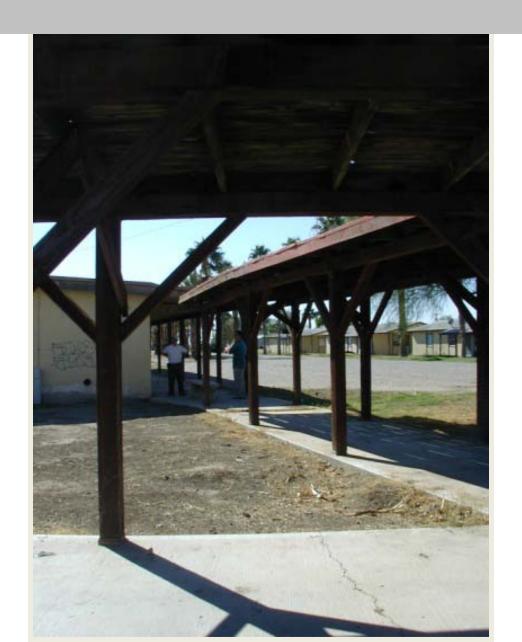
Park County, WY

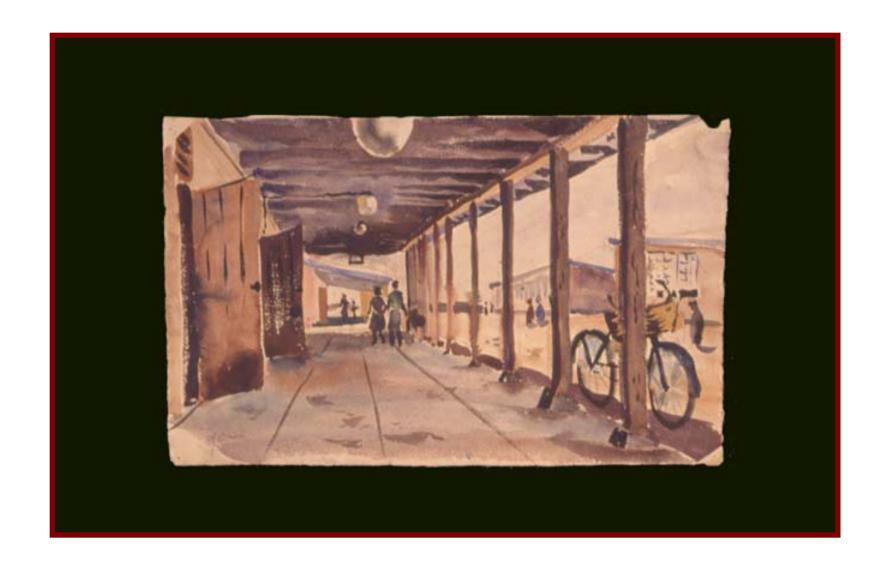




















## **Manzanar Relocation Center**

Inyo County, CA

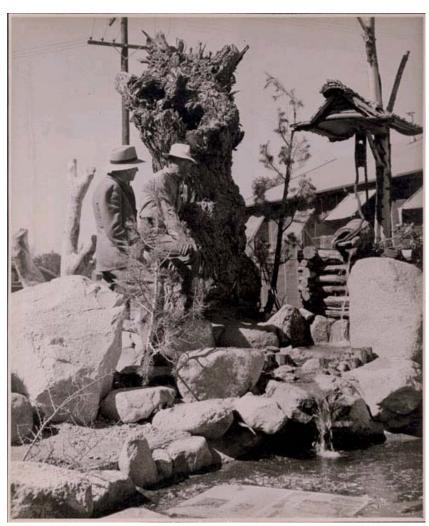




## **Manzanar Relocation Center**

Inyo County, CA

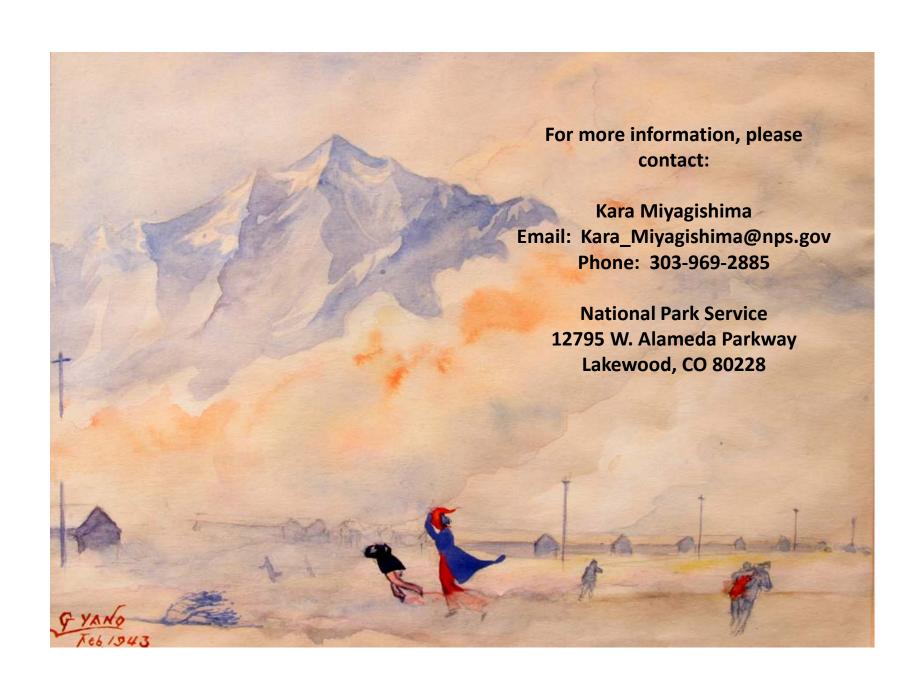




### **Manzanar Relocation Center**

Inyo County, CA





#### Cultural Landscapes in the Western United States

# \* Astrid Liverman – CO State Historic Preservation Office

Kat Vlahos – University of Colorado Denver Abbey Christman – Colorado Preservation Inc.

Identifying Significance and Integrity in Evocative Landscapes

# RANCHES AS CULTURAL LANDSCAPES

Astrid Liverman, Ph.D., National and State Register Coordinator, History Colorado

Ekaterini (Kat) Vlahos, Director of the Center of Preservation Research and Associate Professor of Architecture, University of Colorado Denver Abbey Christman, Survey Director, Colorado Preservation, Inc.

Ranches as Cultural Landscapes

Source: Denver Public Library

# Nomination Know-How: Rural Historic Agricultural Landscapes

\*What is potentially within the National Register boundary? \*What about multiple Areas and Periods of Significance? \*What about building condition? \*What is the best research approach? \*What about continued use? Cottonwood Ranch, Wyoming Source: William Henry Jackson Collection, History Colorado

# What is potentially within the National Register boundary?

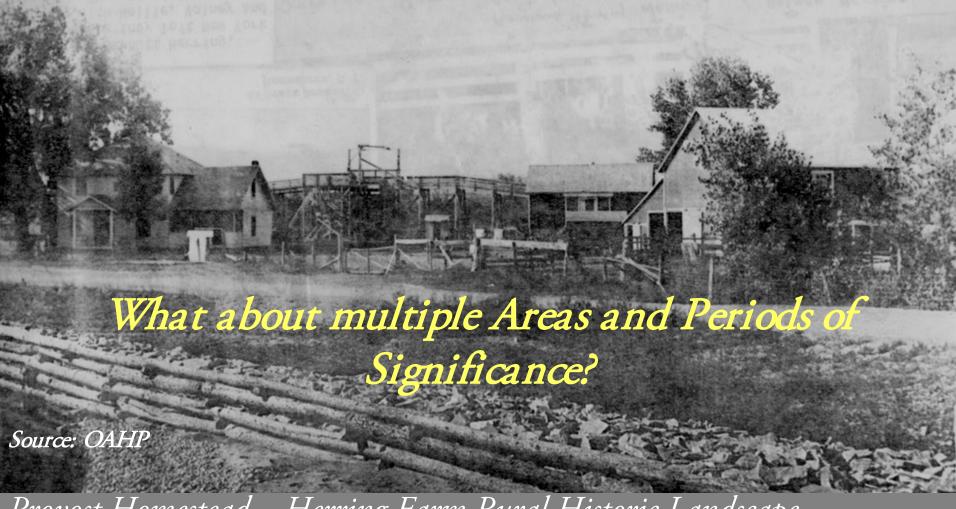
The full extent of extant landscape characteristics (with integrity) dating to the period of significance, or the fullest extent of the property with historic information potential

The second secon

Include wind breaks, fencing, outbuildings, foot bridges, cow paths, road markers, gravestones, isolated vegetation, trail ruts, kitchen gardens, corrals, and...

Tree windbreak, near Longmont, c. 1900-1910 Source: Denver Public Library





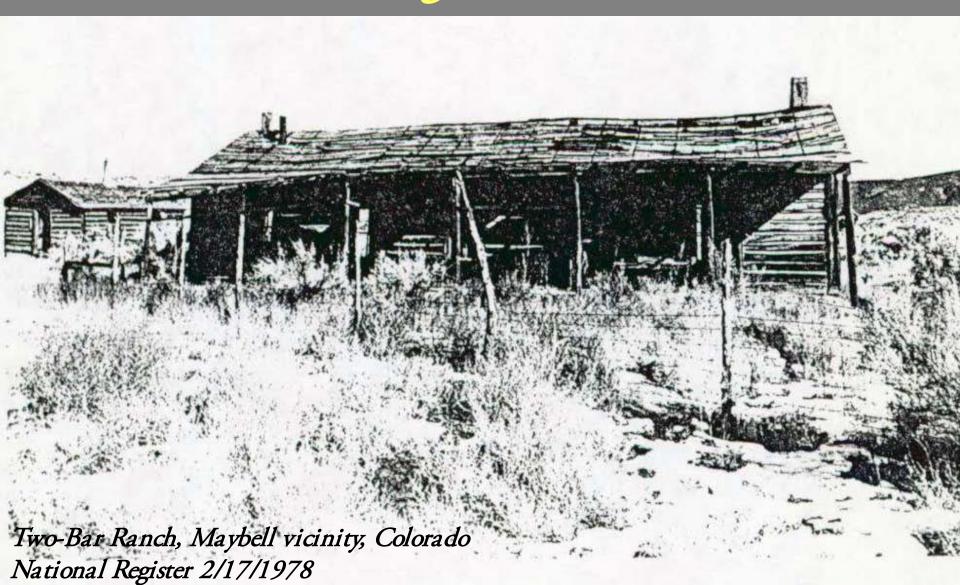
Provost Homestead – Herring Farm Rural Historic Landscape

Larimer County, Colorado (National Register 12/27/2010)

\*Criterion A for *Agriculture* (1888-1935)

\*Criterion C for Architecture (1865-1958)

# What about building condition?: Deteriorated buildings and structures





# Historic Cultural Landscapes: Colorado Cultural Resources Inventory form

#### OAHP Site #

#### COLORADO CULTURAL RESOURCES INVENTORY

#### Historic Cultural Landscapes

recorded on the OAHP Management Data Form (#1400) and the appropriate component for landscape features (ditches, roads, railroads, etc. in whole or properties and the second sec

#### IDENTIFICATION

Property name:

Resource Count: \_\_\_ buildings \_\_\_ structures

Ownership: ☐ federal ☐ state ☐ local

Owner(s) contact info:

#### LOCATION

Street Address:

Municipality

#### OAHP form DRAFT Rev. 9/2011

Official eligibility determination (OAHP use only)	
Date .	initals
=	Determined Eligible- NR Determined Not Eligible- NR Determined Eligible- SR
$\equiv$	Determined Not Eligible- SR Need Data Eligible NR District – contributing Eligible NR District – noncontributing

#### Cultural Landscape Classification

Site or District

Historic Designed Landscape

or

Historic Vernacular Landscape

or

Ethnographic Landscape



# What about continued use?

Continuing or compatible land uses and activities enhance integrity of feeling and association

Lost Trail Station, Creede vicinity, Hinsdale County, National Register 4/27/2011 Source: OAHP



The Alliance for Historic Landscape Preservation

American Society of Landscape Architects

The Cultural Landscape Foundation

Vernacular Architecture Forum

The Alliance for Historic Landscape Preservation, *Historic Landscape Resource Manual* (1999)

Charles A. Birnbaum, *Preservation Brief 36: Protecting Cultural Landscapes—Planning, Treatment and Management of Historic Landscapes* (Washington, D.C., National Park Service, 1994)

Denise P. Messick, J.W. Joseph, Ph.D., and Natalie P. Adams (New South Associates, Inc.), *Tilling the Earth: Georgia's Historic Agricultural Heritage—A Context* (Atlanta: Georgia Department of Natural Resources and Georgia Department of Transportation, 2001)

National Register Bulletins

Robert R. Page, et. al., A Guide to Cultural Landscape Reports: Contents, Process, and Techniques (Washington, D.C.: National Park Service, 1998)

R. Laurie and Thomas H. Simmons, *Historic Ranching Resources of South Park, Colorado* National Register Multiple Property Documentation Form (approved January 28, 2000)

Christine Whitacre and R. Laurie Simmons, *Historic Farms and Ranches of Weld County* National Register Multiple Property Documentation Form (approved March 15, 1991)

Deon Wolfenbarger, Agricultural Resources of Boulder County National Register Multiple Property Documentation Form (approved August 29, 2008)



# Additional Resources

Rourke Ranch Historic District, La Junta Vicinity, National Register 9/21/2000

#### Cultural Landscapes in the Western United States

Astrid Liverman – CO State Historic Preservation Office

\* Kat Vlahos – University of Colorado Denver

Abbey Christman – Colorado Preservation Inc.

# Identifying Significance and Integrity in Evocative

# RANCHES AS CULTURAL LANDSCAPES

# Ranches as Cultural Landscapes

Identifying Significance and Integrity in Evocative Landscapes



Photography: Cheryl Ungar

# A cultural landscape shows the interaction and relationship of people and place over time.

Preservation Brief # 36: Protecting Cultural Landscapes, National Park Service (1994)









# Medano Zapata Ranch

## Research & Community Development

Ranch is transitioned to a non-profit conservation organization

# **Routt County**

## Survey and HABS/HALS documentation

Keeping working landscapes in the hands of the rancher

## Purgatoire River Region Survey

## Survey of cultural resources

Identify cultural resources on ranches in collaboration with owners

# The Challenges

Increase public awareness for cultural landscapes

Deciding what to preserve and how to do it

Documenting disappearing historic landscapes

Finding new uses for ranches that can be saved

# The Problem

Disappearance of our rural ag landscapes

Disappearance of our cultural resources

Challenges of documenting rural landscapes

# Why is this important?

Loss of open space

Loss of a part of our history

Loss of a quality and way of Life

Loss of scenic and cultural landscapes

Loss of local jobs and community businesses

# No Farms No Food

www.farmland.org

American Farmland Trust

1-800-431-1499



# One solution to the problem

Identify, document, interpret and organize historic resources to guide preservation efforts.

# The Landscapes







#### The Ranch

Single ranch with historic headquarter(s) vs Ranch composed of many historic homesteads

#### The Team

Professional survey team vs

Graduate students in university setting

#### The Documentation

Traditional documentation vs

High tech digital scanning

#### Overall Project Goals and Outcomes

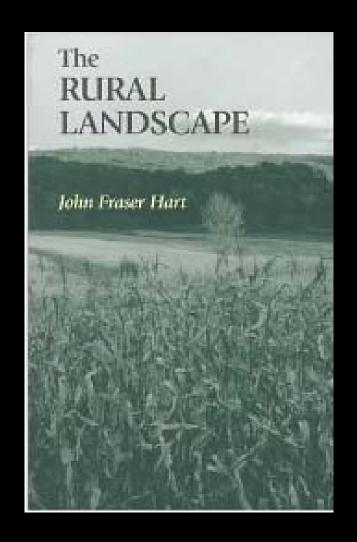
Preservation

as ruin · as rehab · as landscape

# How do we identify critical components of rural landscapes?

## Key components that "shape the place"

- 1) the land
- 2) the buildings and structures that people added
- 3) the plants and vegetation that cover the area.



#### **36** Preservation Briefs

Technical Preservation Services

National Park Service

National Park Service U.S. Department of the Interior

### Protecting Cultural Landscapes Planning, Treatment and Management of Historic Landscapes

#### Charles A. Birnbaum, ASLA

- »Developing a Strategy and Seeking Assistance
- »Preservation Planning for Cultural Landscapes
- »Developing a Historic Preservation Approach and Treatment Plan
- »Developing a Preservation Maintenance Plan and Implementation Strategy
- »Recording Treatment Work and Future Research Recommendations
- »Summary
- »Selected Reading



#### NATIONAL REGISTER BULLETIN

Technical information on the the National Register of Historic Places: survey, evaluation, registration, and preservation of cultural resources



U.S. Department of the Interior National Park Service Cultural Resources National Register, History and Education

#### Guidelines for Evaluating and Documenting Rural Historic Landscapes



### Case Study • Medano-Zapata Ranch

Research & Community Development Ranch is transitioned to a non-profit conservation organization



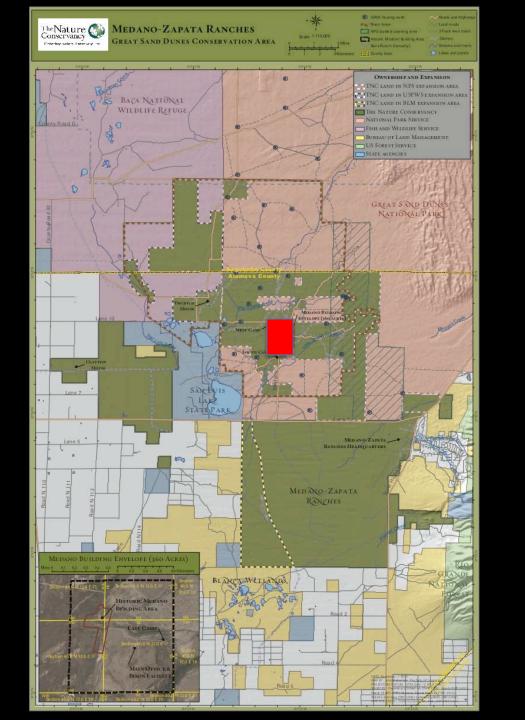
#### **Processes**

- Land uses and activities
- Patterns of spatial organization
- Response to the natural environment
- Cultural traditions









#### **Physical Components**

- Circulation networks
- Boundary demarcations
- Vegetation related to land use
- Buildings, structures, and objects
- Clusters
- Archeological sites
- Small-scale elements

#### Components of a Cultural Landscape

- Topography
- View sheds
- Vegetation
- Buildings and structures
- Water features
- Circulation features
- Furnishings

#### Defining the Edges

- Historic legal boundaries
- Boundary demarcation
- Rights-of-way
- Natural features
- Changes in nature of development or spatial organization
- Edges of new development
- Current legal boundaries
- Lines drawn along or between fixed points
- Long-standing vegetation

#### Partner: The Nature Conservancy

The Nature Conservancy's mission is to preserve the plants, animals, and natural communities that represent the diversity of life on earth by protecting the lands and waters they need to survive.

How can one document, interpret, organize and manage an existing inventory of data, including but not limited to historic maps, photographs, written reports, journal entries and drawings to reveal the story of a place and to guide preservation efforts?

How can one use a multitude of resources and materials available, combined with new technologies, to reveal the traces of the past and tell a narrative – a story of place?

#### Case Study • Routt County



Develop survey and HABS/HALS documentation of ranches in the county.

Develop an ag historic context for the county.

#### HRC! Barns Etc! Working Partners

**Historic Routt County!** 

Individual Ranchers and Property Owners

City of Steamboat Springs

Yampa Valley Land Trust

Community Agriculture Alliance



### Private Ranch Sales Over 400 Acres Between 1990-2001 Summary of Owners

Total Acres	243,331	
Traditional Rancher	17,520	7%
Part-Time Ranchers	2,072	1%
<b>Amenity Buyer</b>	156,203	64%
Developers	17,716	7%
Investors	25,802	11%
Corporations	14,292	6%
<b>Conservation Orgs</b>	1,281	1% +
Other	2,809	1%
Unclassified	5,636	2%

Report Developed by William Travis, University of Colorado, Hannah Gosnell, Center of the American West

#### **Process**

- 1) Identify the Community Stakeholders
- 2) Identify Properties for Survey
- Identify the Survey Team
- 4) Develop Historic Context
- 5) Develop documentation HABS/HALS
- 6) Local Designation

#### Identify the community stakeholders







#### Key property owners selected throughout the county



#### Identify properties for survey



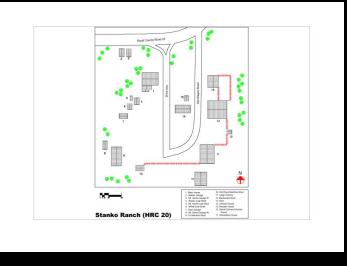




#### Identify the survey team







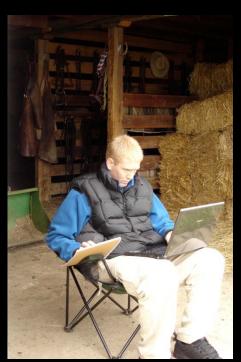
#### Develop historic context

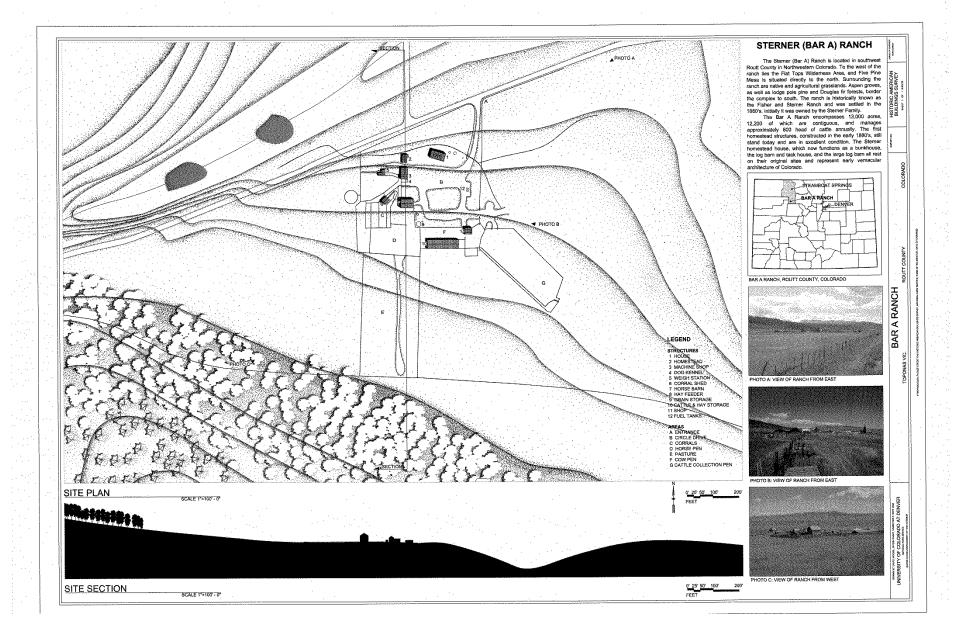


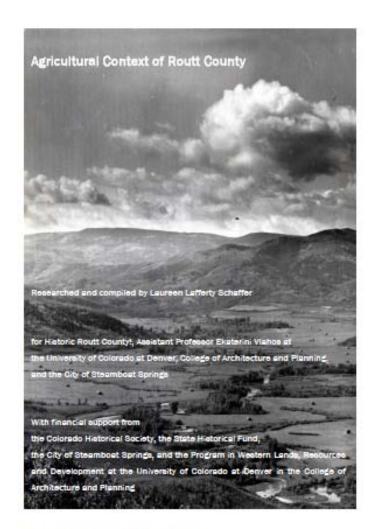


Develop documentation – Surveys and HABS/HALS









December 2000, updated December 2005

#### Summary the landscape is always changing

- Be comprehensive both in documentary research and site observations
- Develop or use the statement of historic contexts as a guide for identifying historic properties and judging what features require the greatest attention and contribute most to historic significance
- Be well equipped with knowledge of historic area and field tools for documentation
- Be sensitive to ongoing rural activities and rights of property owners
- Listen to the people who know the landscape
- Keep careful records of photographs, maps, notes, ideas, sources and thoughts

The only proper way to learn about and understand the landscape is to live in it, look at it, think about it, explore it, ask questions about it, contemplate it, and speculate about it. It emphasizes things anyone can see, the vernacular, common, ordinary, everyday things of the people who live on the land, because these things make the landscape what it is. John Fraser Hart

Cultural Landscapes in the Western United States

Astrid Liverman – CO State Historic Preservation Office Kat Vlahos – University of Colorado Denver \* Abbey Christman – Colorado Preservation Inc.

Identifying Significance and Integrity in Evocative

### RANCHES AS CULTURAL LANDSCAPES



## SURVEYING RURAL HISTORIC LANDSCAPES

#### Rural Resources Surveys-Baca and Phillips Counties

- Included all unincorporated areas
- Drove every road and inventoried all sites with buildings more than 50 years old
- Followed countywide reconnaissance with intensive survey of representative sites
- Produced brochure and web pages with information on each county's historic resources

What's next: MPDF for Agricultural Resources in Northeast Colorado





### Purgatoire River Region Survey

- Reconnaissance and Intensive Survey primarily on private lands
- Working with ranchers in Otero, Las Animas, and Huerfano Counties to document historic sites on land threatened by expansion of Pinon Canon Maneuver Site
- Architectural and Archaeological survey
- What's next: MPDF for Homesteading Resources in the Purgatoire River Region





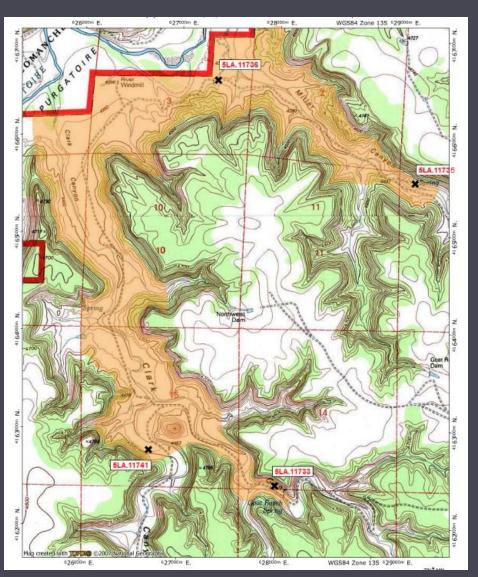
#### Boundaries

#### Looking beyond the buildings





Boundaries can be based on historic land ownership or current crop patterns





Natural features such as canyons can also create boundaries

# Layers of Significance

Can the evolution of a property be part of its significance?

# Layers of history: ruins of abandoned homesteads now part of cattle ranches









## Ruins

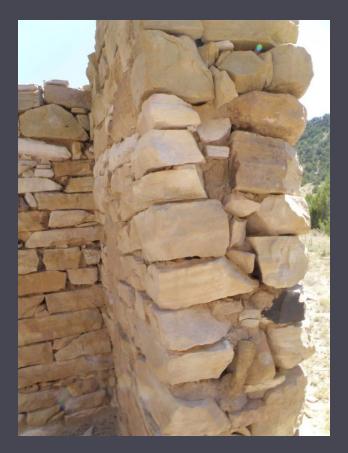
Can a building be architecturally significant if it's missing a roof?

# Traditional construction methods- locally quarried sandstone with adobe mortar









# Regional building types- dugouts





# Traditional cultural features such as New Mexican corner fireplaces



# Architecture that incorporates the landscape



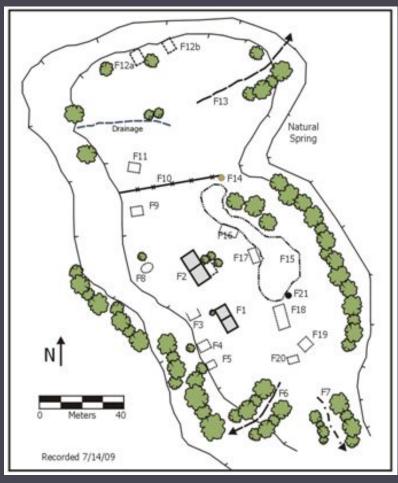






## Layout of homestead complexes





## Multi-disciplinary approach

Combining architectural survey with historical archaeology

# Combining Architectural and Archaeological Survey

- Traditional or frontier architecture can be very difficult to date. Material culture artifacts can help determine when a homestead was constructed as well as when it was abandoned.
- Archaeologists are skilled at evaluating foundations, depressions, and surrounding landscape features
- Material culture of a site may also indicate site uses not in official records



The Allen Mayes Homestead was patented in 1923, but the site includes late nineteenth century artifacts.

# Material Culture of Homesteading







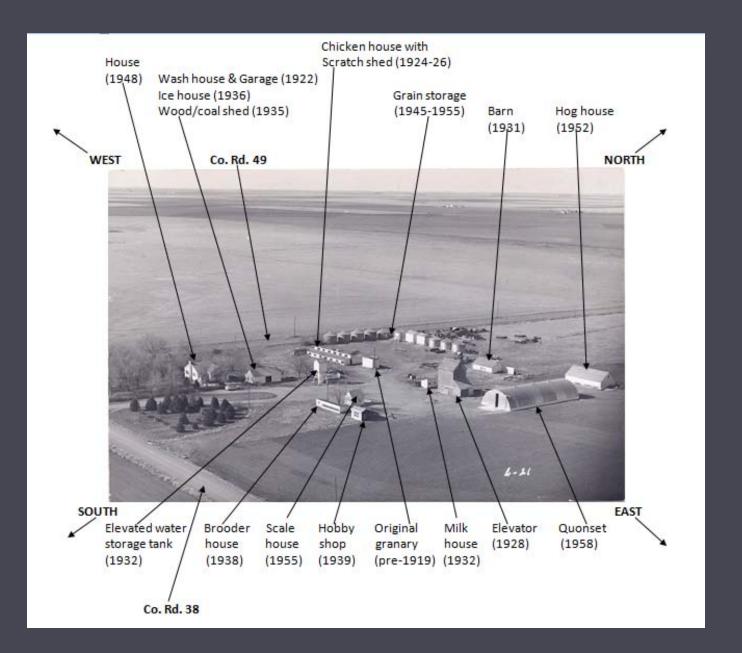






# Working Landscapes and Continued use

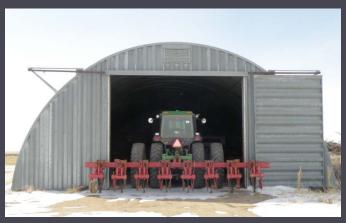
How do you evaluate a landscape that is still evolving?



# Farm buildings reflect changes in farm technology













# Farm buildings are often moved or converted



Elevator and grain bins installed in barn

Barns moved from one farm to

another



Barn converted to elevator



Schoolhouse to farm hand housing



Methodist tabernacle to sheep barn



Hog barn converted to grain storage

## Buildings no longer in use soon disappear















## Researching rural landscapes

How do I figure out who lived here?

### Public records

- Homestead patent information available via
   General Land Office records website at www.glorecords.blm.gov
- Census information available online through ancestry.com
- Homestead testimony available from the National Archives in Washington, D.C.

Pueblo 021888

4-1003-R.

#### The United States of America.

To all to whom these presents shall come, Greeting:

WHEREAS, a Certificate of the Register of the Land Office at Pueblo, Colorado,

has been deposited in the General Land Office, whereby it appears that pursuant to the Act of Congress of May 20, 1862

"To Socure Homesteads to Actual Settlers on the Public Domain," and the acts supplemental thereto, the claim of

has been established and duly communated, in conformity to law, for the southeast quarter of the southeast quarter of Section seven, the west half of the southwest quarter, the southeast quarter of the southwest quarter, and the southwest quarter of the southeast quarter of Section eight, the north half of the northeast quarter of Section seventeen, and the northeast quarter of the northeast quarter of Section eighteen in Township thirty-one south of Range fifty-eight west of the Sixth Principal Meridian, Colorado, containing three hundred twenty agres.

according to the Official Plat of the Survey of the said Land, returned to the GENERAL LAND OFFICE by the Surveyor-General:

NOW KNOW YE, That there is, therefore, granted by the UNITED STATES unto the said claimant
TO HAUE AND TO HOLD the said tract of Land, with the appurteanness thereof, sute the said claimant
forevers updated and accrued water rights for millioning, agricultural, manufacturing, or other purposes, and
rights to ditches and reservoirs used in connection with such water rights, a may be recognized and acknowledged by the local customs, laws,
and decisions of courts; and there is reserved from the lands hereby granted, a right of way thereon for ditches or canals constructed by the
suthchity of the United States.

IN TESTIMONY WHEREOF, I. Woodrow Wilson.

President of the United States of America, have caused these letters to be made

Patent, and the seal of the General Land Office to be bereunto affixed.

GIVEN under my hand, in the District of Columbia, the EIGHTEENTH

NINETEEN

day of IIII Y

in the year of our Lord one thousand

nine hundred and

.

United States the one hundred and FORTY-FOURTH

by the

Woodrow Nelson

- 1

RECORD OF PATENTS: Patent Number ... 698929

(SEAL.)

## Charles E. Coy Homestead

#### From GLO records:

- Received title to 320 acres under the Enlarged Homestead Act in 1919
- Received title to an additional 320 acres under the Stock Raising Act in 1922

#### From Census records:

Charles E. Coy was born in 1877 in Missouri. His father was a farmer. Charles' wife Virlea was also from Missouri. The couple had three daughters, all born in Colorado. Before homesteading, the family lived in Trinidad where Charles was a merchant of second hand goods.

#### From Homestead testimony:

- The original homestead complex consisted of a two-room stone house, a one-room bunk house, a stable, a smokehouse, a chicken house, a spring house, and a corral.
- Charles tried planting many different crops (cane, corn, rye, wheat, sudan grass, millet, potatoes, barley, beans, milo, broomcorn) but the majority failed.





#### **Steve Hart- Colorado School of Mines**

Identifying Significance and Integrity in Evocative Landscapes

BARIUM MINES: LOST LANDSCAPES OF COLORADO

Colorado's "Lost" Radium
Boom: Early 20th Century
Mining and Processing
Landscapes on the Colorado
Plateau and in Denver

Stephen Hart and Eric Twitty
October 2011

# Cultural Landscapes

- Size vary from small gardens to national parks of several thousand acres (my underlines)
- Character range from designed to vernacular, rural to urban, and agricultural to industrial
- Examples estate gardens, cemeteries, farms, quarries, mills, nuclear test sites, suburbs, and abandoned settlements
- Conclusion many landscapes have historic value and merit documentation and recognition

(Source: NPS 2005)

# Rural Historic Landscape

- Historic geographical area used by people
- Shaped or modified by human activity, occupancy, or intervention
- Possessing a significant concentration, linkage, or continuity of areas of land use, vegetation, buildings and structures, roads and waterways, and natural features. (my underlines)

(Source: NPS 1999)

# Rural Historic Landscapes

#### May include:

- Industry (including mining and milling)
- Transportation systems

"Mining properties may include not only the most prominent mining structures, but also the communities shaped as a result of the mining activity and the surrounding land covered by related mining claims and containing historic shafts, tunnels, pits, and tailings."

#### May be listed in the National Register as:

- Sites or
- Historic districts

(Source: NPS 1999)

# Uranium Mining Landscapes

- "Concise areas in western Montrose and San Miguel counties that experienced uranium mining certainly fit the definition.
- "Groups of individual resources such as mines, millsites, and mining camps will constitute most uranium mining landscapes.
- "The specific type of uranium mining landscape will then be defined by the dominant or most numerous resources."

(Source: Twitty 2008)

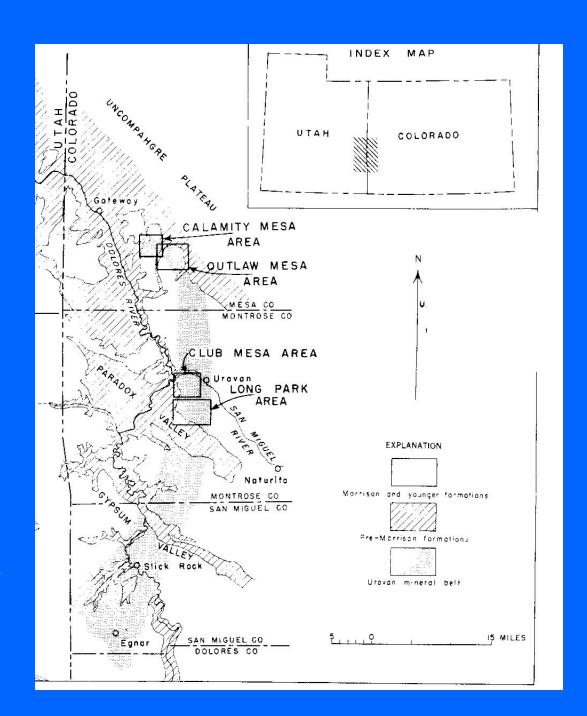
# 1898 – Discovery of Radium



- Mme. Marie Curie isolated radium from Austrian pitchblende ore
- Samples of yellow ore sent from Montrose, CO to France
- Ore named "carnotite" after French Inspector of Mines Adolphe Carnot
- 1898-1916 radium used for medical, not military, purposes

# Urayan Mineral Belt (shaded area)

Mineral belt became center of U.S. radium industry after 1900



# Uravan Belt Mining "Booms"

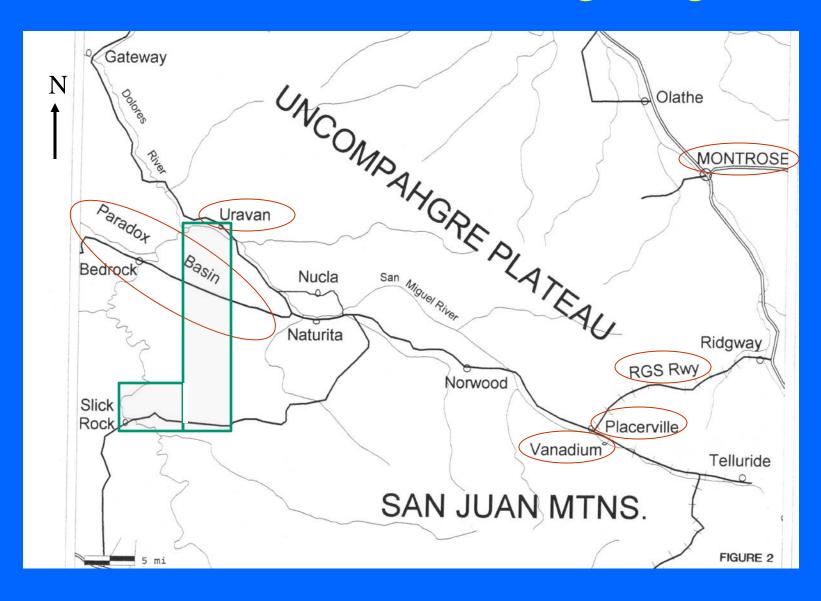
Period of Significance	Timeframe	Principal Theme
First	1898-1905	First uranium mining and milling, and beginning of industry.
		Uranium produced for its radium content.
Second	1906-1922	First vanadium mining and milling. Uranium and vanadium
		boom. Vanadium produced as steel alloy, uranium for its radium
		content.
Third	1935-1940	Revival of vanadium mining.
Fourth	1941-1945	Vanadium produced as weapons-grade steel alloy. Uranium
		secretly produced for Manhattan Project nuclear program.
Fifth	1946-1963	Vanadium produced for weapons and consumer goods.
		Uranium produced for Cold War nuclear weapons programs.
Sixth	1974-1980	Vanadium produced for consumer goods.
		Uranium produced for nuclear power.



Periods of Significance included in this presentation

(Source: Twitty 2008)

# Historic Radium Mining Region



# Paradox Valley (or "Paradox Basin")



Photo looking east from west end of valley

# Rail Transportation



Mining equipment arrives at Placerville depot

Standard Chemical Co. tank car at Placerville



# Road Transportation



Leaving Placerville for Uravan - only 56 miles to go!

Bagged radium ore at Long Park ready for shipment by mule train

## Radium/Vanadium Mines



1915 radium miner pointing out radioactive carbonized log in NRI Long Park mine

Miners working in Primos vanadium mine near Newmire

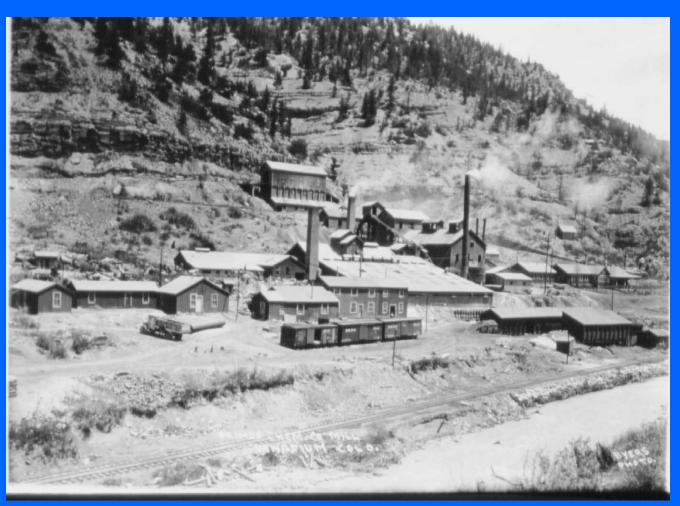


# NRI Long Park Radium Mill – 1915



10 tons per day; milled ore packed in 100-lb burlap bags

## Primos Vanadium Mill



- Primos
  Chemical Co.
  built mill at
  Newmire in
  1910
- Town name changed to "Vanadium"

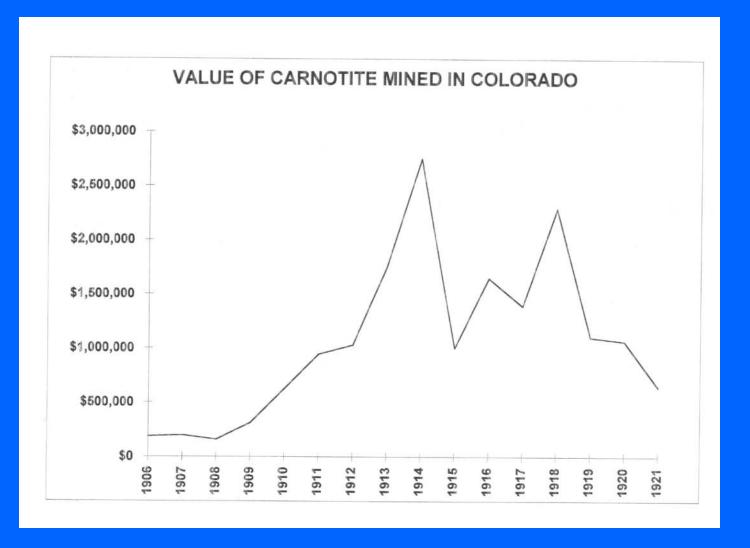
## Uravan – 1918





- Standard Chem.
   Co. of PA started
   company camp
   on San Miguel
   River in 1912
- Built Joe Jr. Mill, boarding house, livery stable, etc.

### Colorado Radium Production



1914 peak for medical use; 1918 peak for military use

### Radium Bust – 1923

- 1914 uranium found in Belgian Congo (kept secret from Germans)
- 1921 discovery revealed:
  - Carnotite = 1-3% U<sub>3</sub>O<sub>8</sub>
  - Congo ore = >25% U<sub>3</sub>O<sub>8</sub>
- 1922 \$2 million/oz Ra dropped by >50%
- 1923 Miners left Paradox Valley

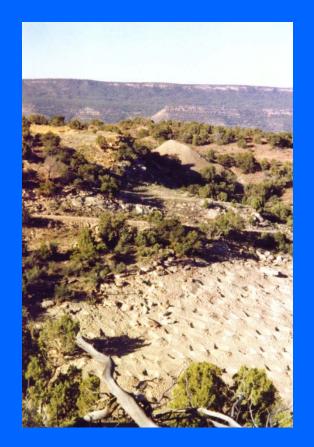


Shinkolobwe Mine

## Uravan Mineral Belt Today

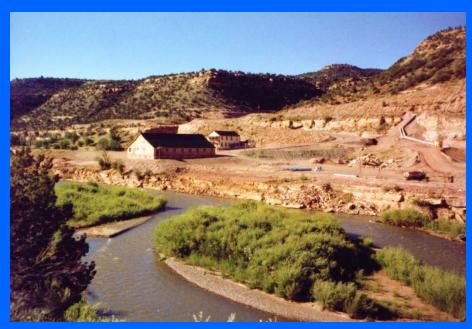


- 1979 Three-Mile Island plant accident caused uranium bust
- 1990s Primos vanadium mill groundwater cleaned up by EPA
- 1990s-2000s CO MLRD and BLM sealed uranium mines; are sensitive to historic resources



Long Park mine after MLRD closure

### UMETCO Cleanup – 1983-Present



1994 - State landmarked Uravan rec. center and boarding house; 2 bldgs were all that remained of Uravan in 1999 photo

1999 - 1912 Uravan buildings were repaired using Colorado Historical Fund money



# Landmarking is NOT Preservation!



On February 13, 2007, UMETCO burned down 1912 Uravan boarding house and rec. hall due to cost to restore!

# Now Only Scattered Buildings Remain from Radium Boom



Several Radium Luminous Co. cabins still stand at their Long Park headquarters

Remains of Radium Ores Company's Tramp Mill in Long Park



# Contributing SW CO Resources

Radium-boom era contributing resources for rural historic landscape designation under NRHP Criterion A

# Mining-related resources:

- Prospects
- Mines
- Mill sites
- Buildings/foundations
- Related structures
- Settlements

(Sources: Twitty 2008; NPS 1999)







From UL:
Wedding
Bell ruins;
Vanadate
Mine portal;
NRI Long
Park Mill
cistern

### Contributing SW CO Resources





# Transportation-related resources:

- Rio Grande Southern Railway structures, grades, equipment
- Wagon & stage roads and bridges
- Pack trails
- Aerial tramways

(Sources: Twitty 2008; NPS 1999)

Above: San Miguel River bridge at Uravan in 2011

Below: Primos Mine tramway

near Sawpit in 1999

### Urban Radium Boom Landscape

- 1912-21 processing of SW Colorado radium ore occurred in Denver
- 1979-80 CO Health Dept. rediscovery in Denver of 41 sites clustered along N-S railroad lines (i.e., the South Platte River)
- 1982-95 EPA remediated Denver Radium Superfund Sites; largest was Robinson Brick & Tile (NRI) site at I-25 and Santa Fe
- Today remainder more HAER than HALS

(Source: Hart 1986)

# National Radium Institute, Denver – 1913-1916



- Built during "Big Snow" of Dec. 1913
- Note 2 small buildings in center of 1916 photo

# National Radium Institute Site Cleaned Up by EPA



1982 – Robinson Brick & Tile still in operation (Note 2 small buildings in foreground)

# NRI Landscape Today



- NRI site now Home Depot on South Santa Fe
- I-25 & Broadway Light Rail Station to east

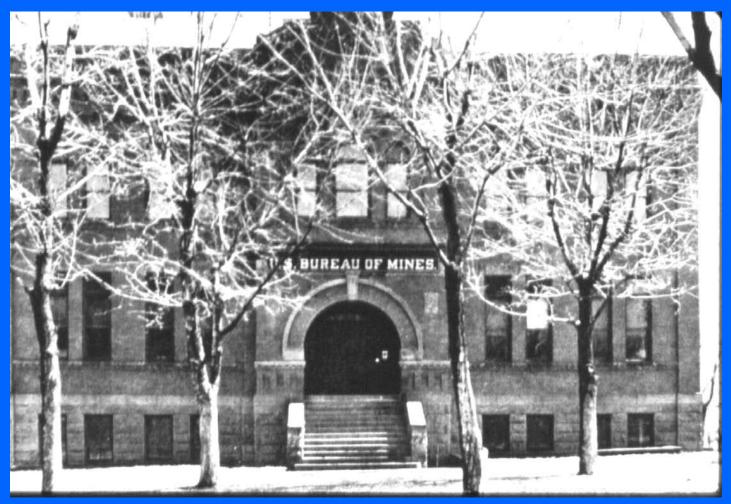
## Urban Radium Boom Landscape?

- 1910 U.S. Bureau of Mines Research Lab
- Located in Foster Bldg. in Denver
- Lab stimulated "rare earth" mineral exploration for:
  - Radium
  - > Uranium
  - > Vanadium
- University of Denver remediated their bldg. in early 1980s



Now University Bldg. on 16th St. Mall

# 1916 – BuMines Denver Research Lab Moved to Golden



CSM's Engineering Hall was built in 1894

## CO School of Mines Cleanup



- 1920 BuMines lab moved to Univ. Nevada, Reno
- 1985 BuMines lab connection rediscovered at CSM
- 1988 Engineering Hall decontaminated

### Conclusion

- "Radium boom" lasted only 20 years
- Subsequent vanadium and uranium "booms" reused same SW Colorado mines and mill sites
- Denver processing sites <u>recycled</u> for non-radioactive purposes after 1923
- Uranium "bust" after 1979 prompted widespread government agency remediation & reclamation
- Little remains of America's first "radioactive boom" except a <u>rural historic landscape</u>
- Historic land uses of this landscape limited to radium/vanadium/uranium mining & grazing

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- Robinson, Judith Helm; Vernon, Noel D.; Lavoie, Catherine C. Historic American Landscapes Survey Guidelines for Historical Reports. National Park Service, 2005 (July rev.).
- Twitty, Eric. Guide to Assessing Historic Radium, Uranium and Vanadium Mining Resources in Montrose and San Miguel Counties, Colorado Multiple Property Listing. NPS Form 10-900-b/OMB No.1024-0018, 2008.

(*Photo credits*: Denver Public Library, Steve Hart, Eric Twitty)

Cultural Landscapes in the Western United States

### **Tom Thomas – National Park Service**

Identifying Significance and Integrity in Evocative Landscapes

### LANDSCAPES OF CONFLICT: SAND CREEK AS A CASE STUDY

# IDENTIFYING SIGNIFICANCE AND INTEGRITY IN EVOCATIVE LANDSCAPES





### **Two Congressional Mandates**

#### **PUBLIC LAW 105-243**

Sand Creek Massacre National Historic Site Study Act of 1998

#### **PUBLIC LAW 106–465**

Sand Creek Massacre National Historic Site Establishment Act of 2000



Sand Creek Massacre National Historic Site – Draft Alternatives and Management Zones

# PUBLIC LAW 105-243 Authorized the Site Location Study Directed the National Park Service to:

- to "identify the location and extent of the massacre area and
- the suitability and feasibility of designating the site as a unit of the National Park Service system."





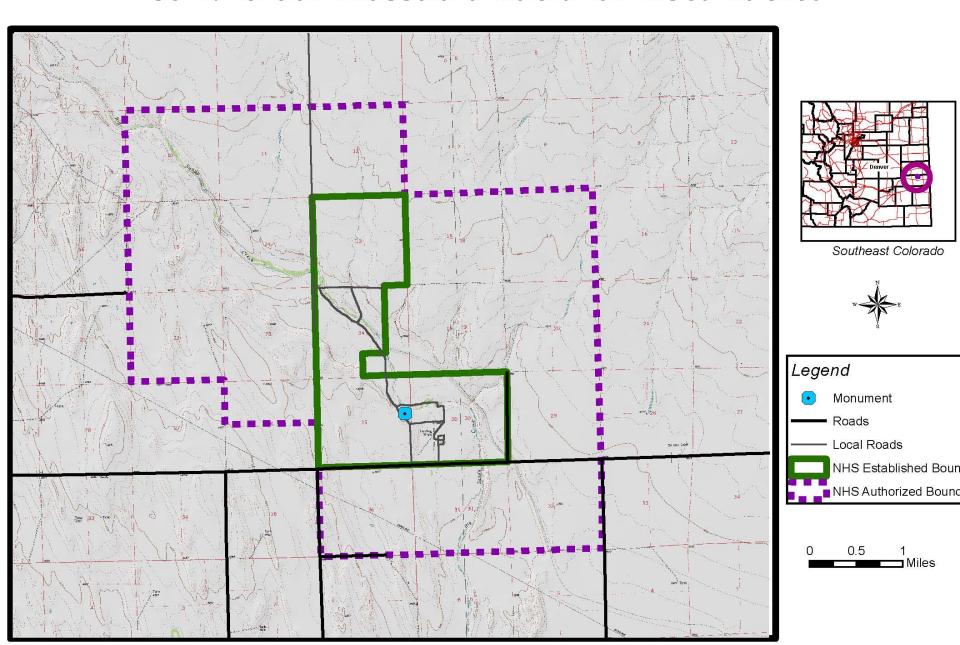
#### **PUBLIC LAW 105-243**

Sand Creek Massacre National Historic Site Study Act of 1998

#### The site location study methodology

- Historical research
- Oral histories
- Traditional tribal methods
- Archeological survey







#### **PUBLIC LAW 106-465**

Sand Creek Massacre National Historic Site Establishment Act of 2000

The Secretary shall protect and preserve the site, including -

- The topographic features that the Secretary determines are important to the site;
- Artifacts and other physical remains of the Sand Creek Massacre; and
- The cultural landscape of the site, in a manner that preserves, as closely as practicable, the cultural landscape of the site as it appeared at the time of the Sand Creek Massacre.

# HASTONAL FARK

#### Sand Creek Massacre National Historic Site

### PL 106-465 Sand Creek Massacre National Historic Site Establishment Act of 2000

- Interpret the natural and cultural resource values associated with the site;
- Provide for public understanding and appreciation of; and
- Preserve for future generations those values.



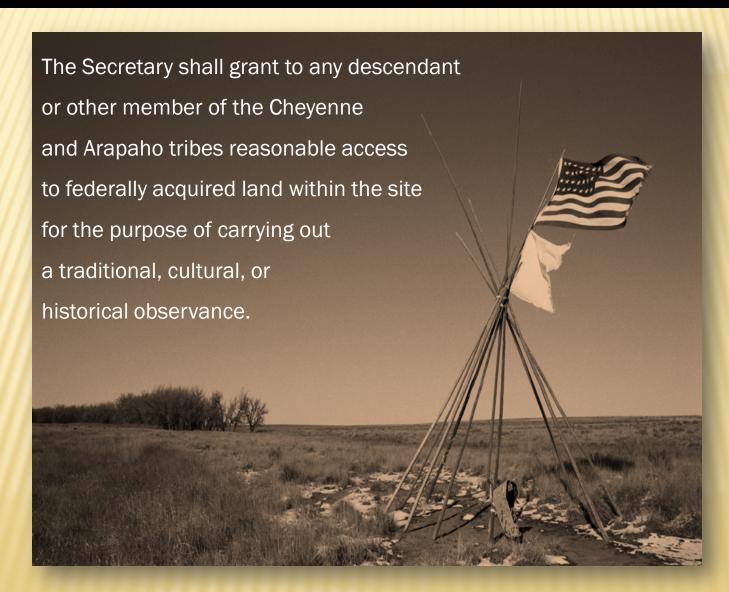


## PL 106-465 Sand Creek Massacre National Historic Site Establishment Act of 2000



- Memorialize, commemorate, and provide information to visitors to the site;
- Enhance cultural understanding about the site; and
- Assist in minimizing the chances of similar incidents in the future.

# HATIONAL FARK



### HATIONAL PARK SRIVICE

#### **Sand Creek Massacre National Historic Site**

#### PL 106-465

Sand Creek Massacre National Historic Site Establishment Act of 2000

- Create a plan to manage the site within 5 years after establishment including preservation measures; type and extent of development, and use of the site, including offsite support facilities in Kiowa County;
- Identify and implement visitor carrying capacities for all areas of the site;
- Provide opportunities for involvement by the tribes and the State in the formulating educational programs for the site; and
- Provide opportunities for involvement by the tribes, the State, and other local and national entities as appropriate in developing and supporting the site.



"Protect... The cultural landscape of the site, in a manner that preserves, as closely as practicable, the cultural landscape of the site as it appeared at the time of the Sand Creek Massacre."

What is the cultural landscape of Sand Creek?

### HASTONAL PARK SERVICE

Sand Creek Massacre National Historic Site

**Ethnographic landscape** - a landscape containing a variety of natural and cultural resources that associated people define as heritage resources. Examples are contemporary settlements, sacred religious sites, and massive geological structures. Small plant communities, animals, subsistence and ceremonial grounds are often components.

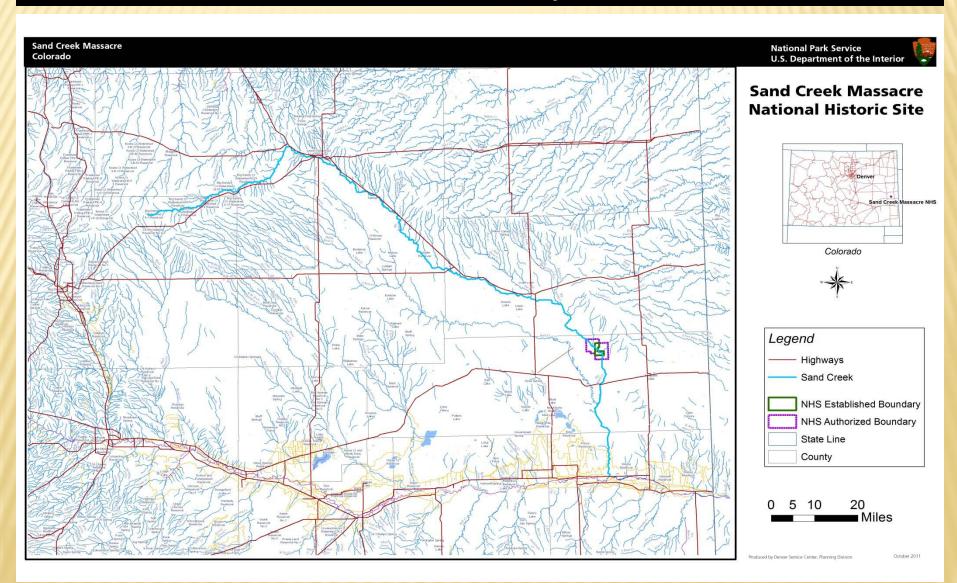


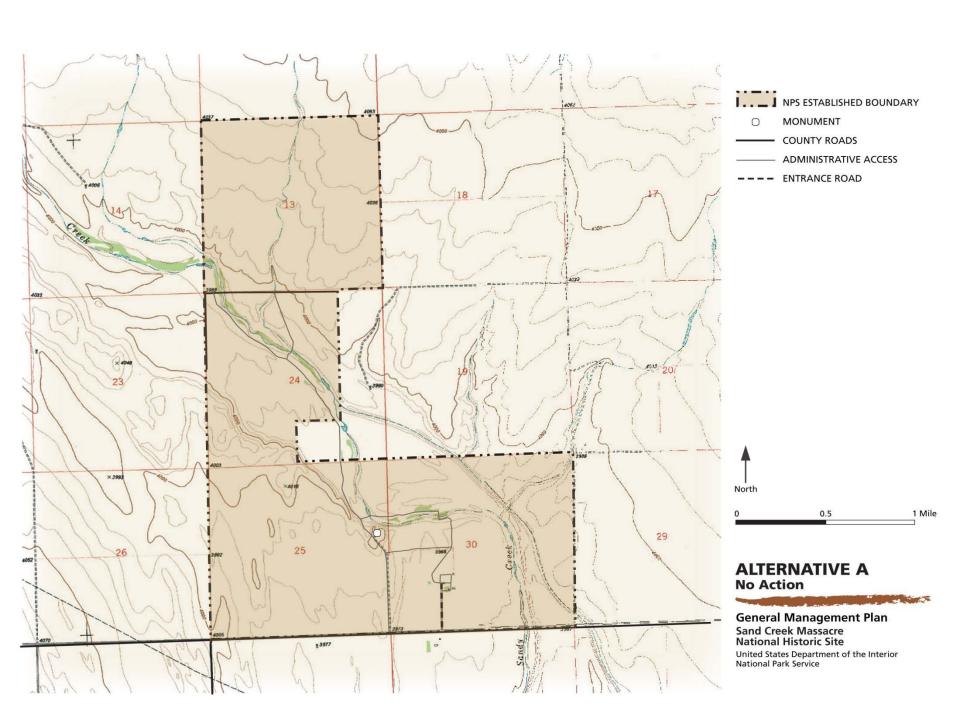
# What are the components of the ethnographic landscape?

At Sand Creek, there is a fine line between cultural and natural features of the landscape.



Sand Creek Massacre National Historic Site – Draft Alternatives and Management Zones

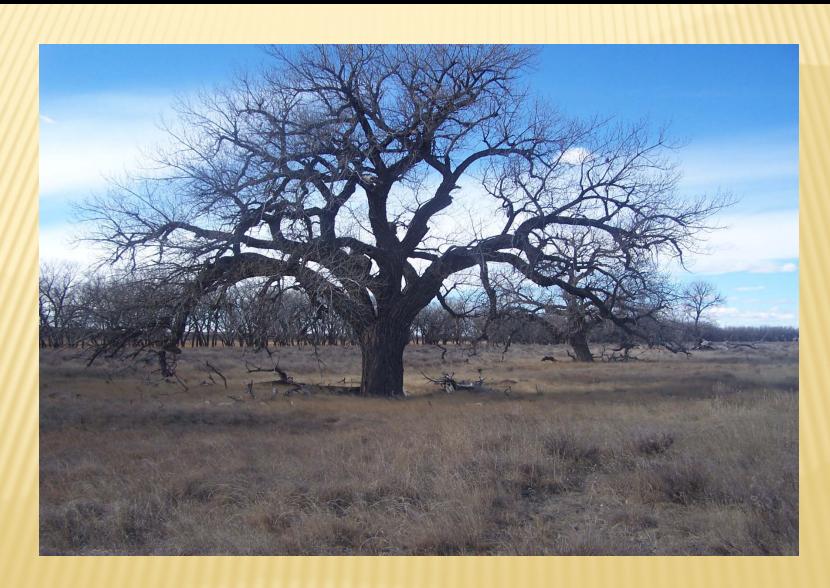




### NATIONAL PARK SERVICE



### RATIONAL PARK SERVICE



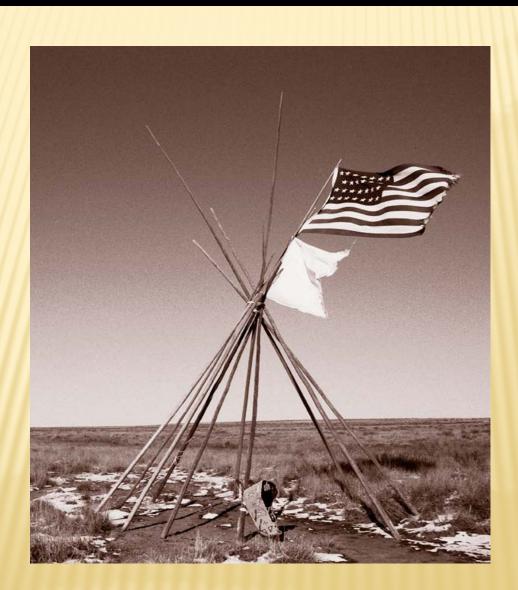
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