Archaeology of the Upper Greybull River Drainage System: Long-term records and multiple data sets

SYSTEMATIC SURVEY MULTIPLE DATASETS

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Meeteetse, Wyoming

With contributions by:
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2003 CSU Archaeological field class
2002 Greybull River Project Participants
Draper Museum of Natural History

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Tonight’s talk:
• tell you a bit about what we’ve been doing and what we see as its relevance
• talk about an integrated approach to research
• explore archaeological perspectives on relationships between environment and peoples’ lives
• discuss the importance of long-term record

In Memory of My Parents
Margaret Todd 1918-2003
Cal Todd 1924-2003

In Memory of my Grandparents
Lawrence Todd
Vera Todd

In Memory of my Great Grandparents

Draper Museum of Natural History
In Memory of my Great, Great Grandparents

JULIA ANN HENDERSON 1819 — 1919

NORTHWESTERN WYOMING:

<table>
<thead>
<tr>
<th>COUNTY</th>
<th>AREA</th>
<th>SITE/km²</th>
<th>POPULATION</th>
<th>SITE/km²</th>
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<tbody>
<tr>
<td>PARK</td>
<td>3380</td>
<td>1.4</td>
<td>25974</td>
<td>0.19/km²</td>
</tr>
<tr>
<td>BIG HORN</td>
<td>4627</td>
<td>1.4</td>
<td>11255</td>
<td>0.57/km²</td>
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<td>HOT SPRINGS</td>
<td>861</td>
<td>0.9</td>
<td>4805</td>
<td>0.17/km²</td>
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<tr>
<td>WASHAKIE</td>
<td>1822</td>
<td>1.4</td>
<td>8102</td>
<td>0.31/km²</td>
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<tr>
<td>TETON</td>
<td>2404</td>
<td>1.8</td>
<td>18437</td>
<td>0.23/km²</td>
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<td>TOTAL</td>
<td>13094</td>
<td>1.4</td>
<td>68573</td>
<td>0.28/km²</td>
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</table>

Dendroecology

Died in mid 1600's, sprouted in late 1300 or early 1400's

Putting long-term change into a Human Perspective

William and Julia Todd
Lawrence and Vera Todd
Some interesting relationships of climate and human use of Greybull drainage basin and surrounding area

What else was happening near Meeteetse during the late 1800’s?

“The possibilities and the necessity of a forest reserve were brought home to me by the fact that for two years I had not been able to see the mountains surrounding my ranch on account of the dense smoke from burning forests. It was evident that something other than mere coincidence lay behind the simultaneous burning of so many fires. I learned that many of them had been set by sheepmen, since it would be easier for them to trail their sheep through deforested areas, and since the weeds that would spring up next season were desirable food for sheep, which will eat weeds as readily as grass”.

A.A. Anderson (1933:90)

“Were there other possibilities for the number of fires in late 1890’s?”

What is the “normal” fire frequency?

More common during dry, hot years.

The Problem: Fires
The Cause: Sheepmen
The Reserve: Few Fires=Success

What was happening near Meeteetse during the late 1890’s?

“The Yellowstone Forest Reserve was the first large forest reserve in the United States. Surrounding Yellowstone on all four sides and occupying space in three states – Montana, Wyoming, and Idaho -- it covers about 9500 square miles... Apart from its size, however, the Yellowstone Reserve is significant in that it has provided the inspiration and basic plan for the development of all our national forest reserve. By its success, it has proved the great value of the reserve system to our country”.

A.A. Anderson (1933:1150)
Lake Sediments:
the last 800 years have been unusually wet
- Necessity to continuously research and monitor environment
- Equilibrium models ("balance of nature") do not work
- New approach – adaptive management

Symposium:
The Greybull River Impact Zone (GRIZ) 2003:
Multi-scalar Assessment of Human/Landscape Interactions
in Northwestern Wyoming

Paul Burnett, Lawrence Todd and Kelly Derr
Changes In Montane Watershed Use Patterns
Through The Holocene: A Spatial Chronology
In The Central Absaroka Range, Wyoming

Lawrence Todd and Paul Burnett
Archaeological Catch And Release:
Expanding Data Capture For Non-Collection Surveys
William Reitze, Lawrence Todd and Paul Burnett

Morainal Archaeology: Alpine Landscapes, And Raw Material Procurement

Andrew C. Mueller, Lawrence Todd and William Reitze

The Gold Reef Mining District: A Non-Collection Survey Of Historic Mining Activity In The Upper Greybull River Drainage
**Kelly Derr, Paul Burnett and Lawrence Todd**

*Thermal Landscapes: Surface Temperature, Topography And Site Placement On The Greybull Watershed*

**Benjamin Schoville, Alisa Hjermstad, Todd Wellnitz & Lawrence Todd**

*Benthic Macroinvertebrate Sampling: Integrating Stream Ecology, Nested Sampling Designs, And Bundled Research Strategies*

**Audrey Rudolf, Lawrence Todd, Courtney Hurst and Ned Matheson**

*Archaeological Impact Assessment: Recreation And Research Along The Upper Greybull Drainage, Northwestern Wyoming*
Shay Heiner and Lawrence Todd

Small-Scale Investigations with Large-Scale Implications: Ecological Impacts in Archaeologically Disturbed Areas

RECREATION ECOLOGY

Recreation Ecology’s 5th Dimension

Triple S Archaeology:
Focus on the Future rather than the Past

SUSTAINABILITY
Economic
Ecological

SCIENCE
Research
Education

STEWARDSHIP
Multiple stakeholders
Common goals

Archaeology: a multidisciplinary approach for the development and evaluation of integrated, multi-scale datasets for interpreting human ecological and social interactions.

Thank you!

Questions, Comments, Discussion?