Climate Change and Archaeological Resources

Greg Burtchard
Climatic Shifts &
the Archaeological Record

Two Issues of Concern:

• Direct Physical Effects to the Record
  – Damage to Archaeological Properties
  – Enhanced Opportunities for Discovery

• Archaeological Record’s Capacity to Inform
Climatic Shifts &
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The Glacier Basin Archaeological District
Glacier Basin Mining ca. 1895
TarPebble Cabin – Blacksmith Shop ca. 1918
Storbo Hotel ca. 1918
Storbo Hotel – From Structure to Archaeological Site
Sawmill from Structure to (Destroyed) Archaeological Site
Equipment at Reven Mine 1961 and Present -Indirect Effects-
Climatic Warming – Increased Erosion – Archaeological Loss
Climatic Shifts &
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• Archaeological Record’s Capacity to Inform
Discoveries Associated with Glacial Melting
Climatic Shifts &
the Archaeological Record

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• Archaeological Record’s Capacity to Inform
  (Archaeology as a science of long-term cultural and environmental process)
Buck Lake Project:
1. Archaeological testing
2. Lakebed sediment core extraction and analysis
Pre-Mazama Artifact *in situ*
Buck Lake Sediment-Pollen Core
Direct Environmental Sampling & Reconstruction
The 4.72 m Buck Lake Core

- Top, Modern Lakebed
- St. Helens Yn, 3400 RCYBP
- Rainier C, 2300 BP
- Mazama O, 6800 RCYBP
- Oldest Lakebed Mud (not shown), 7,200 RCYBP
- Tephra & mixed organics
Fir Dominated (later seral stages)

Pine Dominated (earlier seral stages)

Pollen Profile by Age

Elevated Fire Frequency
References for this Presentation


