



Symposium Agenda

October 13-15, 2010

*Opening of the Trail of Time at Grand Canyon:
New Approaches to Geoscience Education in the National Park
System.*

Day 1 AM, Wednesday, October 13, 2010

at Shrine of Ages auditorium

Introduction to the Trail of Time: Judy Bryan and Karl Karlstrom convening

8:45 - 9:00 AM

Welcome

Judy Bryan (GCNP) and Karl Karlstrom (UNM)

9:00- 9:30

Introduction to the Trail of Time:

A "young" canyon carved into very old rocks

Karl Karlstrom (UNM)

The Million Year Trail—and geo- societal issues

Laura Crossey (UNM)

Talking, thinking, and laughing about geologic time

Mike Williams (UMass)

9:30 - 9:45

Keynote speaker:

***A Surprisingly Short History of Geological Science and Interpretation
at the Grand Canyon***

Paul Hirt (ASU)

9:45 - 10:00

Introduction to NPS working group topics

Laurie Crossey (UNM) and Bob Lillie (OSU)

10:00 - 10:30

Break

10:30 - 10:45

The Trail of Time - a laboratory for informal geoscience learning

Steve Semken (ASU)

10:45 - 11:00

***Visitor Experiences on the Trail of Time:
A Snapshot from the Summative Evaluation***

Deborah Perry (Selinda Research Associates)

11:00 - 11:30 AM

Keynote speaker:

The importance of the Geosciences and Science Education

Paul Hoffman (Harvard)

11:30 - 12:00

Working group self-select topics (sign ups on flip charts) and meet over lunch

12:00 - 2:00 PM

Catered lunch (working groups sit together) at Park Headquarters

Introductions and organization of group goals

Day 1 PM, Wednesday, October 13, 2010
at Verkamps

The Ribbon Cutting Ceremony

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| 2:00 - 2:30 PM | Walk (~1 mi.) or take the shuttle bus (~15 min.) to Verkamps, at the east end of Grand Canyon village |
| 2:30 - 2:45 | <i>Welcome from Grand Canyon Superintendent</i>
Steve Martin (GCNP) |
| 2:45 - 3:00 | <i>Brief (and humorous) history of the Trail of Time Exhibition</i>
Karl Karlstrom (UNM) |
| 3:00 | Ribbon Cutting |
| 3:00 - 5:00 | <i>Unstructured walk along the Trail of Time</i>
Park Interpreters stationed along the Trail |
| 6:00 - 9:00 PM | Catered dinner at Park Headquarters |

Day 2 AM, Thursday, October 14, 2010

at Shrine of Ages auditorium

Lessons Learned About Visitors, Informal Geoscience Education, and Geoscience Education and Evaluation: Deborah Perry and Steve Semken convening

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| 8:30 - 9:00 AM | Keynote speaker:
<i>Importance of Visitor's Experiences</i>
Michael Q. Patton (Organizational development and evaluation consultant) |
| 9:00 - 9:30 | Keynote speaker:
<i>New directions in the field of Geoscience Education</i>
Cathy Manduca (Carleton College) - NAGT Executive Director |
| 9:30 - 10:00 | Keynote speaker:
<i>Recontextualizing Science through the Trail of Time: An exhibition consistent with the findings from contemporary Educational Neuroscience research</i>
Kevin Dunbar (U. Toronto) |
| 10:00 - 10:30 | Break |
| 10:30 - 10:45 | The Connection between Time Understanding and Scientific Knowledge
Jeff Dodick (Hebrew University) |
| 10:45 - 11:00 | <i>Time as Place, Referee, Picture, Clock, and Value</i>
Kip Ault (Lewis and Clark College) |
| 11:00 - 11:15 | <i>Place-based and culturally responsible interpretation</i>
Steve Semken (ASU) |
| 11:15 - 11:45 | Keynote speaker:
<i>Global Geotourism and Geoparks</i>
Ross Dowling (Edith Cowling University, Australia) |
| 12:00 - 2:00 PM | Catered lunch (working groups sit together) at Park Headquarters
Informal time for NPS groups to meet |

Day 2 PM, Thursday, October 14, 2010

at Shrine of Ages auditorium

Brief overviews and discussions of Working Group Topics and goals:

Geoscience Interpretation in the National Parks-- cognition, misconceptions, anecdotes and new approaches: Bob Lillie, Allyson Mathis, and Mike Williams convening 5 minute: "pop-up" talks to stimulate 5 minutes of lively discussion (tentative schedule)

2:00 - 2:10 PM	Topic 1: Training NPS staff on the geology and deeper meaning of the landscapes of the National Park Service Bob Lillie (Oregon State University)
2:10 - 2:20	Topic 2: Geoscience interpretation methods and challenges Allyson Mathis (Science and Education Outreach, GCNP)
2:20 - 2:30	Topic 3: The human dimension: linking geology and archeology and exploring what geology means for us today, tomorrow, and in the past Jan Balsom (Science & Resource Management, GCNP)
2:30 - 2:40	Topic 4: Identifying effective geoscience interpretive techniques and how to deal with controversial geo-topics Wayne Ranney (Geoscience Writer)
2:40 - 2:50	Topic 5: The Grand Canyon "Geologist-in-the-Park" Experience Stacy Timmons (New Mexico Bureau of Geology and Mineral Resources)
2:50 - 3:00	Topic 6: Engaging the boatman community (and the public) at Grand Canyon Brad Dimock (Writer and Boatman)
3:00 - 3:30	Break
3:30 - 3:40	Topic 7: Possible Geo-linkages between western Parks Tim Conners (Geologic Resources Division, NPS)
3:40 - 3:50	Topic 8: Collaborating with Parks, Regions, and the National Offices Judy Geniac (Albright Training Center)
3:50 - 4:00	Topic 9: Ideas for improved geoscience interpretation for my Park Joan Mayer (Glen Canyon National Recreation Area)
4:00 - 4:10	Topic 10: Engaging the public with fossils Erica Clites (Glen Canyon Paleontologist)
4:10 - 4:20	Topic 11: Ideas for improving the Geo junior Ranger and other educational programs Jacob Fillion (Interpretation and Resource Education, GCNP)
4:20 - 4:30	Topic 12: Next steps for the Trail of Time: other parks, virtual TOT, and links to formal education Ryan Crow (UNM)
4:30 - 5:00	Discussion on working group progress Laurie Crossey (UNM) and Bob Lillie (OSU)
6:00 - 9:00 PM	Catered dinner at Park Headquarters

Day 3 AM, Friday, October 15, 2010

at Shrine of Ages auditorium

Synthesis and writing sessions

Towards a unified Park-wide Geoscience interpretation program—next steps

8:30 - 9:30	Working group meetings
9:30 - 11:00	Short (2-5 minute) short presentations from working groups Skits, posters, Power Points, and/or panel discussions from each working group
11:00 - 12:00	Final summary and future plans for the "white paper"
12:00	Meeting adjourned