

**GSA Meeting, March 19-21, 2008  
Faculty and Student Submissions**

**Wednesday, March 19**

**Session No. 1: 8:00 AM-12:00 PM**

Igneous/Metamorphic Petrology, and Volcanology  
Student Union 208C

- 1. Gene Smith, Presenting (Racheal Johnsen, Denise Honn: Co-Authors)  
Presentation Time: 10:40 AM-11:00 AM**

A NEW 3-DIMENSIONAL VIEW OF THE MID-MIOCENE VOLCANIC AND  
PLUTONIC ROCKS OF THE RIVER MOUNTAINS, SOUTHERN NEVADA

**Abstract**

**Session No. 2: 8:00 AM-11:00 AM**

Quaternary Geology, Geomorphology, and Archaeological Geology  
Student Union 209

- 1. Matt Lachniet, Co-Author (Gerald Osborn: Presenting)  
Presentation Time: 8:20 AM-8:40 AM**

PROBLEMS WITH A GLACIAL INTERPRETATION OF LANDFORMS AND  
SEDIMENTS IN THE SPRING MOUNTAINS, NEVADA

**Abstract**

**Session No. 4: 8:00 AM-12:00 PM**

Patricia H. Cashman, James H. Trexler, and **Wanda J. Taylor**, Presiding  
Pennsylvanian to Early Triassic Deformation and Sedimentation in the Western US  
Student Union 208A

- 1. Wanda Taylor, Co-Author (Danielle Villa: Presenting)  
Presentation Time: 10:50 AM-11:10 AM**

REINTERPRETATION OF THE IRON POINT "THRUST" AT EDNA MOUNTAIN,  
NEVADA, AS A PENNSYLVANIAN LOW-ANGLE NORMAL FAULT

**Abstract**

- 2. Sam Siebenaler, Presenting (Wanda Taylor: Co-Author)  
Presentation Time: 11:10 AM-11:30 AM**

STRUCTURAL AND BIOCHRONOLOGIC ANALYSIS OF THE NORTHERN DRY HILLS, HUMBOLDT COUNTY, NEVADA: EVIDENCE FOR RECLASSIFICATION OF THE ETCHART FORMATION

**Abstract**

**Session No. 5--Booth# 1: 8:00 AM-12:00 PM**

Paleontology/Sedimentology/Stratigraphy (Posters)

Student Union Ballroom

**Authors will be present from 9 to 11 AM**

**1. Steve Rowland and Matt Lachniet, Co-Authors (Lael Vetter: Presenting)**

STABLE ISOTOPIC ANALYSES OF TEETH FROM FOUR GENERA OF HERBIVORES FROM THE LATE PLEISTOCENE OF SOUTHERN NEVADA

**Abstract**

**2. Angela Russo, Presenting (Steve Rowland: Co-Author)**

PALEOECOLOGY OF A RANCHOLABREAN COMMUNITY PRESERVED IN FLOODPLAIN DEPOSITS OF MEADOW VALLEY WASH, LINCOLN COUNTY, NEVADA

**Abstract**

**3. Paul Kosmidis, Presenting (Ganqing Jiang, Peter Druschke: Co-Authors)**

THE UNCONFORMITY AT THE BASAL EUREKA QUARTZITE IN NEVADA AND CALIFORNIA: IMPLICATIONS FOR SEA-LEVEL CHANGE AND THE INITIATION OF LATE ORDOVICIAN GLACIATION

**Abstract**

**4. Ganqing Jiang, Presenting (Peter Druschke: Co-Author)**

STROMATOLITES IN THE LATE ORDOVICIAN EUREKA QUARTZITE: IMPLICATIONS FOR MICROBIAL GROWTH AND PRESERVATION IN SILICICLASTIC SETTINGS

**Abstract**

**Session No. 6: 1:30 PM-5:35 PM**

Calvin G. Barnes, Aaron Yoshinobu, **Rodney V. Metcalf**, and Arthur W. Snoke,  
Presiding

The Klamath Mountains Province—500 Million Years of Crustal Accretion and Exhumation

Student Union 208A

**1. Wendy Barrow, Presenting (Rod Metcalf: Co-Author)**

**Presentation Time: 2:35 PM-2:55 PM**

PERMIAN EXHUMATION OF A LARGE COHERENT SHEET OF METABASITE  
AT A PACIFIC-TYPE CONVERGENT MARGIN: CENTRAL METAMORPHIC  
TERRANE, KLAMATH MOUNTAINS

**Abstract**

**2. Rod Metcalf, Presenting**

**Presentation Time: 4:15 PM-4:35 PM**

CRUSTAL ACCRETION HISTORY OF THE KLAMATH MOUNTAINS PROVINCE:  
TRACKING TEMPORAL CHANGES IN MOHO DEPTH (CRUSTAL THICKNESS)  
USING BASALT TRACE ELEMENT GEOCHEMISTRY

**Abstract**

**Session No. 7--Booth# 0: 1:30 PM-5:40 PM**

**Michael L. Wells**, Carl E. Jacobson, and Andrew Barth, Presiding

Causes and Consequences of Laramide Tectonics in the Forearc, Arc, and Backarc of the  
Southwestern United States

Student Union 208C

**1. Michael Wells, Presenting**

**Presentation Time: 4:00 PM-4:20 PM**

TECTONIC IMPLICATIONS OF LATE CRETACEOUS EXTENSION AND  
GRANITE PRODUCTION IN THE MOJAVE DESERT REGION: DELAMINATION  
OF MANTLE LITHOSPHERE AT THE ONSET OF THE LARAMIDE OROGENY?

**Abstract**

**Session No. 8: 1:30 PM-5:00 PM**

**Stephen M. Rowland and Aubrey M. Shirk**, Presiding

Rancholabrean Paleoecology of Western North America

Student Union 209

**1. Josh Bonde, Presenting (Aubrey Shirk, Steve Rowland: Co-Authors)**

**Presentation Time: 3:40 PM-4:00 PM**

TAPHONOMY OF THE GILCREASE SPRING MOUND PALEONTOLOGICAL  
SITE, CLARK COUNTY, NEVADA

**Abstract**

**2. Steve Rowland, Co-Author (Elizabeth Glowiak: Presenting)**  
**Presentation Time: 4:00 PM-4:20 PM**

GYPSUM CAVE REVISITED: A FAUNAL AND TAPHONOMIC ANALYSIS OF A RANCHOLABREAN-TO-HOLOCENE FAUNA IN SOUTHERN NEVADA

**Abstract**

**Session No. 9: 1:30 PM-4:30 PM**

**Adam Simon, Presiding**

Mineralization in the Western United States  
Student Union 213

**1. Jean Cline, Co-Author (Anthony Longo: Presenting)**  
**Presentation Time: 2:10 PM-2:30 PM**

COMPOSITIONAL VARIATIONS IN AU-BEARING PYRITE FROM A CARLIN-TYPE AU DEPOSIT, GETCHELL, NEVADA

**Abstract**

**2. Haroldo Lledo, Presenting (Jean Cline: Co-Author)**  
**Presentation Time: 3:10 PM-3:30 PM**

THE SEARCHLIGHT MINING DISTRICT: LINKING LOW SULFIDATION EPITHERMAL MINERALIZATION WITH AN UNDERLYING GRANITIC PLUTON USING S AND PB ISOTOPES

**Abstract**

**3. Carl Swenberg, Presenting (Aaron Bell, Adam Simon: Co-Authors)**  
**Presentation Time: 3:50 PM-4:10 PM**

EXPLORING THE CHEMICAL BEHAVIOR OF PLATINUM GROUP ELEMENTS

**Abstract**

**4. Seth Page, Presenting (Christina Hughes, Jason Norgan, Mike Nicholl, Adam Simon: Co-Authors)**  
**Presentation Time: 4:10 PM-4:30 PM**

CHARACTERIZATION OF UNSATURATED FLOW IN HEAP LEACH PILES

**Abstract**

**Session No. 11--Booth# 20: 1:30 PM-5:30 PM**

Detrital Zircon Studies in Western North America (Posters)  
Student Union Ballroom

**Authors will be present from 2:30–4:30 PM**

**1. Andrew Hanson, Presenting**

DETRITAL ZIRCON CONSTRAINTS ON THE JEAN CONGLOMERATE AND SEVIER UNROOFING NEAR LAS VEGAS

**Abstract**

**Thursday, 20 March 2008**

**Session No. 13: 8:00 AM-11:50 AM**

**Wanda J. Taylor**, Craig M. dePolo, Jim Werle, Catherine M. Snelson, and Barbara Luke, Presiding

Seismic Hazards Summit–Southern Nevada Region I  
Student Union 208A

**1. Wanda Taylor, Co-Author (John Anderson: Presenting)**

**Presentation Time: 10:10 AM-10:30 AM**

SEISMIC HAZARDS IN SOUTHERN NEVADA: THE GAP BETWEEN THE PRESENT AND A STATE-OF-THE-ART EVALUATION

**Abstract**

**Session No. 14: 8:00 AM-11:30 AM**

**Terry L. Spell and Eugene Smith, Presiding**

Mafic-Silicic Magmatism: Crystallization Histories, Magma Interactions, and Eruption Mechanisms I

Student Union 208C

**1. Terry Spell, Presenting (Katie Wooton, Gene Smith, Nicole Nastanski:**

**Co-Authors)**

**Presentation Time: 8:25 AM-8:45 AM**

THE ROLE OF BASALT IN ERUPTION OF QUATERNARY RHYOLITES NORTH OF THE YELLOWSTONE CALDERA

**Abstract**

**Session No. 17: 1:30 PM-5:10 PM**

**Wanda J. Taylor**, Craig M. dePolo, Jim Werle, Catherine M. Snelson and Barbara Luke, Presiding

Seismic Hazards Summit–Southern Nevada Region II  
Student Union 208A

- 1. Wanda Taylor, Co-Author (Craig dePolo: Presenting)**  
**Presentation Time: 1:50 PM-2:10 PM**

CHARACTERIZING THE EARTHQUAKE POTENTIAL OF THE LAS VEGAS VALLEY FAULT SYSTEM

**Abstract**

- 2. Wanda Taylor, Co-Author (Cathy Snelson: Presenting)**  
**Presentation Time: 2:10 PM-2:30 PM**

IMAGING THE LAS VEGAS BASIN: RESULTS FROM SEISMIC REFRACTIONS EXPERIMENTS

**Abstract**

- 3. Wanda Taylor, Presenting (Jonathan Carter: Co-Author)**  
**Presentation Time: 2:30 PM-2:50 PM**

DEVELOPMENT OF LAS VEGAS BASIN, NEVADA WITH IMPLICATIONS FOR SEISMIC HAZARDS

**Abstract**

- 4. Wanda Taylor, Co-Author (Barbara Luke: Presenting)**  
**Presentation Time: 2:50 PM-3:10 PM**

SHEAR WAVE VELOCITY CHARACTERIZATION TO ADDRESS IMPACTS OF SHALLOW SEDIMENTS ON GROUND SHAKING FOR LAS VEGAS

**Abstract**

- 5. Tricia Evans, Presenting (Wanda Taylor: Co-Author)**  
**Presentation Time: 4:10 PM-4:30 PM**

NEW LINKAGE OF THE ARROW CANYON RANGE AND WILDCAT WASH FAULTS, SOUTHERN NEVADA: IMPLICATIONS FOR SEISMIC HAZARDS

**Abstract**

- 6. Wanda Taylor, Robert Davis, Michelle Stropky, Colin Robins, Co-Authors**  
**(Sandra Saldana: Presenting)**  
**Presentation Time: 4:30 PM-4:50 PM**

PRELIMINARY PSEUDO 3-D IMAGERY OF THE STATE LINE FAULT, STEWART VALLEY, NEVADA USING SEISMIC REFLECTION DATA

**Abstract**

**Session No. 18: 1:30 PM-4:30 PM**

**Terry L. Spell and Eugene Smith, Presiding**

Mafic-Silicic Magmatism: Crystallization Histories, Magma Interactions, and Eruption Mechanisms II

Student Union 208C

**Session No. 19: 1:30 PM-6:00 PM**

John P. Platt, **Michael L. Wells**, and Thomas D. Hoisch, Presiding

Driving Mechanisms and Structural Styles of Synconvergent Extension

Student Union 209

**1. Michael Wells, Presenting**

**Presentation Time: 4:35 PM-4:55 PM**

MULTIPLE TRIGGERS FOR MULTIPLE EPISODES OF SYNCONVERGENT EXTENSION IN THE SEVIER HINTERLAND

**Abstract**

**2. Michael Wells, Co-Author (Thomas Hoisch: Presenting)**

**Presentation Time: 4:55 PM-5:15 PM**

TEXTURAL EVIDENCE FROM GARNET SCHIST FOR A MAJOR SYNCONVERGENT EXHUMATION EVENT IN THE HINTERLAND OF THE SEVIER OROGENIC BELT

**Abstract**

**Session No. 20: 1:30 PM-5:15 PM**

Detrital Zircon Studies in Western North America

Student Union 213

**1. Peter Druschke, Presenting (Andrew Hanson, Michael Wells: Co-Authors)**

**Presentation Time: 3:55 PM-4:15 PM**

DETRITAL ZIRCON PROVENANCE OF CRETACEOUS TO EOCENE STRATA IN THE SEVIER HINTERLAND, CENTRAL NEVADA: IMPLICATIONS FOR TECTONICS AND PALEOGEOGRAPHY

**Abstract**

**Session No. 22: 1:30 PM-5:30 PM**

Geoscience Education (Posters)

Student Union Ballroom

**Authors will be present from 2:30–4:30 PM**

**1. Steve Rowland, Presenting**

MAMMOTH TEETH IN THE EARTH SCIENCE CLASSROOM: DEVELOPING SKILLS IN MEASURING, GRAPHING, COLLECTING DATA, AND HYPOTHESIS-TESTING

**Abstract**

**Session No. 25--Booth# 36: 1:30 PM-5:30 PM**

Long Distance Transport of Las Vegas: Recent Research Along a Transect with Major Neogene Extension (Posters)  
Student Union Ballroom

**Authors will be present from 2:30–4:30 PM**

**1. Tom Muntean, Presenting (Andrew Hanson: Co-Author)**

MUDDY CREEK FORMATION: REEVALUATING MISCONCEPTIONS OF LATE MIOCENE TECTONICS AND SEDIMENTATION IN SOUTHERN NEVADA

**Abstract**

**Friday, 21 March 2008**

**Session No. 29: 8:00 AM-12:00 PM**

New Developments in Earth Science Education  
Student Union 209

**1. Denise Honn, Presenting (Racheal Johnsen, Gene Smith: Co-Authors)**

**Presentation Time: 11:00 AM-11:20 AM**

DEVELOPING GEOLOGICAL EDUCATIONAL MATERIALS FOR BLM'S SLOAN CANYON NATIONAL CONSERVATION AREA: PRESENTING THE MIOCENE VOLCANIC HISTORY OF THE NORTHERN MCCULLOUGH MOUNTAINS, SOUTHERN NEVADA TO THE PUBLIC

**Abstract**

**Session No. 30--Booth# 1: 8:00 AM-12:00 PM**

Igneous/Metamorphic Petrology, and Volcanology (Posters)  
Student Union Ballroom

**Authors will be present from 9 to 11 AM**

**1. Kelly Robertson, Presenting (Adam Simon: Co-Author)**

COMPOSITIONAL HETEROGENEITY AT MUTNOVSKY VOLCANO,  
KAMCHATKA, RUSSIA

**Abstract**

**2. Racheal Johnsen, Presenting (Gene Smith: Co-Author)**

DOMES ERUPTION, COLLAPSE, AND PYROCLASTIC FLOWS OF A MID-  
MIOCENE VOLCANIC SECTION IN THE CENTRAL MCCULLOUGH RANGE,  
SOUTHERN NEVADA

**Abstract**

**Session No. 31: 8:00 AM-12:00 PM**

Driving Mechanisms and Structural Styles of Synconvergent Extension (Posters)  
Student Union Ballroom

**Authors will be present from 9 to 11 AM**

**1. Michael Wells, Co-Author (Sheena Styger: Presenting)**

A PRELIMINARY METAMORPHIC PRESSURE-TEMPERATURE PATH FROM  
THE FUNERAL MOUNTAINS, CALIFORNIA: A RECORD OF THRUSTING AND  
EXHUMATION IN THE SEVIER OROGEN

**Abstract**

**Session No. 32--Booth# 27: 8:00 AM-12:00 PM**

Mineralization in the Western United States (Posters)  
Student Union Ballroom

**Authors will be present from 9 to 11 AM**

**1. Jonathan Carter, Presenting (Kelly Robertson, Steve Maglio, Adam Simon: Co-  
Authors)**

STUDYING FLUID INCLUSIONS IN THE LA POPA BASIN, MEXICO AS AN  
ANALOG TO FLUID MIGRATION IN SEDIMENTS IN THE GULF OF MEXICO

**Abstract**

**2. Greg Zellner, Presenting (Adam Simon: Co-Author)**

DESCRIPTION OF GEOLOGY, ORE MINERALOGY, AND SOURCE  
CONSTRAINTS OF MINERALIZING FLUIDS, LITTLE GIANT MINE, YAVAPAI  
COUNTY, ARIZONA

**Abstract**

**3. Zach Artz, Presenting (Adam Simon: Co-Author)**

IGNEOUS GEOCHRONOLOGY AND PETROGRAPHY OF THE CORTEZ HILLS  
CARLIN-TYPE GOLD DEPOSIT, CORTEZ, NEVADA

**Abstract**