

January 15-17, 2011

A SOUTHERN CALIFORNIA KALEIDOSCOPE: PALOMAR, ANZA-BORREGO, SALTON SEA, AND JOSHUA TREE

LED BY DR. DONALD PROTHERO



SEE PAGE TWO FOR A MORE DETAILED DESCRIPTION.

DAY ONE: A personal tour of Palomar Observatory (weather permitting) • A behind-the-scenes tour of the Anza-Borrego State Park Visitor's Center and its outstanding fossil collections representing 3 million years of history.

DAY TWO: We will travel off road in open-air jeeps and military troop-carriers on an approximately eight-hour desert adventure with California Overland Desert Excursions.

DAY THREE: Obsidian Butte, one of four small volcanoes known as the Salton Buttes with its central dome of rhyolite. • The Salton Sea geothermal field. • Salton Sea State Recreation Area Visitor's Center. • Joshua Tree National Park including the Cottonwood Visitor's Center. • More stops with an emphasis on the junction of three of California's ecosystems: The Colorado Desert, the Mojave Desert, and the Little San Bernardino Mountains.

Tour package includes charter bus, 2 nights at a hotel with breakfast, picnic lunch all 3 days, snacks and water, lectures by various experts, park admission, off road transportation, and a guide booklet. You trip fee also includes a tax deductible \$150 donation to the Skeptics Society. Seats are limited, so make your reservations soon! You are on your own for evening meals. There are several nice restaurants within short walking distance of the hotel.

JANUARY 15-17, 2011 (SATURDAY-MONDAY) • ANZA-BORREGO REGISTRATION FORM

name _____
 address _____
 city _____ state _____ zip _____
 phone _____ email _____

Please mark the number of people participating in the boxes below:
 To secure your place phone the Skeptics Society office with a credit card number at 626-794-3119. Fill out and return the registration, liability waiver and medical information forms to complete your registration.

- Skeptics Society members: (single room) @ \$662. each\$ _____
- Skeptics Society members: (shared room-find your own roommate*) @ \$559. each\$ _____
- nonmembers: (single room) @ \$762. each\$ _____
- nonmembers: (shared room-find your own roommate*) @ \$659. each\$ _____

GEOLOGY TOUR DISCOUNT SKEPTICS MEMBERSHIP RATE! Join Skeptic Society now & receive Skeptic magazine for only \$25 and attend the tour at the member's rate. (U.S. residents only)\$ _____

CHECK # _____ **TOTAL PAYMENT OR DEPOSIT INCLUDED \$** _____

Request LUNCH type regular vegetarian

PRINT names of participants below exactly as you would like them to appear on badges:

Charge my: MASTERCARD VISA EXPIRATION DATE _____
 Month Year

Account No.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Signature as name appears on credit card _____



* **Roommates:** The Skeptics Society is not responsible for finding roommates. We will let individuals know who else wants to share a room, but if a suitable roommate is not found, you will be charged the individual price.

Cancellation policy: Before Dec. 1: full refund. After Dec. 1 thru Jan. 1: \$150. donation is not refundable, refund of the rest of the fee. After Jan. 1: no refund. **Mail to:** Geology Tour, Skeptics Society, P.O. Box 338, Altadena, CA 91001. Fax: 626/794-1301. Or phone us at 626/794-3119.

A SOUTHERN CALIFORNIA KALEIDOSCOPE: PALOMAR, ANZA-BORREGO, SALTON SEA, AND JOSHUA TREE

DAY ONE: Join us as we travel from Pasadena to Palomar Observatory for a personalized tour (weather permitting) of the world-class center of astronomical research that is owned and operated by the California Institute of Technology. The observatory is home to five telescopes that are nightly used for a wide variety of astronomical research programs. The tour covers the history and current scientific research of the Palomar Observatory, with a special emphasis on the 200-inch Hale Telescope.

We will get a behind-the-scenes tour of the Anza-Borrego State Park Visitor's Center and its outstanding fossil collections representing three million years of history. Over 500 different types of organisms have been identified, ranging from microscopic plant pollen and spores to the largest of mammoth elephants. Not only are the bones and teeth of long extinct animals preserved, but in some places, also their tracks. Paleontologist George T. Jefferson, author/editor of "Fossil Treasures of the Anza-Borrego Desert: The Last Seven Million Years," will be our guide for this tour. We will stay at the Marriott Fairfield Inn, in El Centro, California.



California Overland Desert Excursion's Offroad vehicle. <http://www.californiaoverland.com/>

DAY TWO: We will travel [off road] in open-air jeeps and military troop-carriers on an approximately eight-hour desert adventure with California Overland Desert Excursion.

Our exclusive Split Mountain tour rumbles up Fish Creek Wash to Split Mountain Gorge. Rock rises steeply on both sides exhibiting fascinating geologic features. Soon you will enter the insides of Split Mountain itself—the ancient torrents of Fish Creek have literally carved this mountain in half. You'll feel dwarfed by this enormous slot canyon where massive rock walls tower impossibly above you. Tortured sedimentary layers called synclines and anticlines testify to the tremendous forces at work in this area. After coming out of the slot canyon the truck pulls over in a broad wash where lunch will be served. A one-mile hike (optional) uphill on a trail leads you to a rewarding vista of the Elephant Knees, a columnar formation that looks like—well elephant knees. The 360° view is amazing, but it's the Wind Caves at the end of the hike that will really rock you. They look like a village built by a primitive culture but they're actually created by nature. Returning to the vehicles, we continue further up the wash to inspect a 4-million-yr-old shell reef and the fossilized footprints of a mammoth and prehistoric coyote. Round out the

day by hiking colorful Sandstone Canyon (one of the most beautiful canyons in the Park) and marveling at the towering temple-like features of the Mud Palisades in Olla Wash.

Return to the hotel.

DAY THREE:

We will begin the final day by visiting Obsidian Butte. Salton Buttes are four small volcanoes designated from southwest to northeast as Obsidian Butte, Rock Hill, Red Island, and Mullet Island. Obsidian Butte consists of a central dome of rhyolite surrounded on all sides by a single rhyolite flow. We will also see the Salton Sea geothermal field, which is the largest of three major geothermal energy production sites in the Salton Sea. Before leaving the area, we will continue to the Salton Sea State Recreation Area Visitor's Center.

We will then travel to Joshua Tree National Park. Our lunch stop will be at the Cottonwood Visitor's Center. Once we have completed lunch, the tour will continue with several stops in the park. Joshua Tree's nearly 800,000 acres were set aside to protect the unique assembly of natural resources brought together by the junction of three of California's ecosystems. The Colorado Desert, a western extension of the vast Sonoran Desert, occupies the southern and eastern parts of the park. It is characterized by stands of spike-like ocotillo plants and "jumping" cholla cactus. The southern boundary of the Mojave Desert reaches across the northern part of the park. It is the habitat of the park's namesake: the Joshua tree. Extensive stands of this peculiar looking plant are found in the western half of the park. Joshua Tree's third ecosystem is located in the western most part of the park above 4,000 feet. The Little San Bernardino Mountains provide habitat for a community of California juniper and pinyon pine.

The park also encompasses some of the most interesting geologic features found in California's desert areas. Exposed granite monoliths and rugged canyons testify to the tectonic and erosional forces that shaped this land. Washes, playas, alluvial fans, bajadas, desert varnish, igneous and metamorphic rocks interact to form a pattern of stark beauty and ever changing complexity.

Our tour will exit the western station of the park (by Twentynine Palms) and return to Pasadena.



Wind caves. Photo by Michael Gilmore



ITINERARY

January 15-17, 2011

PALOMAR, ANZA-BORREGO, SALTON SEA, AND JOSHUA TREE

Saturday, January 15

- 7:15 Load bus
- 7:30 a.m. Bus leaves from Paseo Colorado shopping center located at 280 East Colorado Boulevard in Pasadena, CA
See attached map—Meet on the sidewalk on the north side of the building between N. Garfield Ave. and Eucild Ave. Parking is \$9. per day.
- 10:00a.m Palomar Observatory Tour
35899 Canfield Rd,
Palomar Mountain, CA
- 11:00a.m. Depart Palomar Observatory
- 12:00p.m. Lunch—Palomar Mountain State Park
- 1:15 p.m. Bus departs
- 2:30 p.m. Anza Borrego State Park
Visitor's Center
- 4:00 p.m. Depart Visitor's Center
- 5:00 p.m. Check in to hotel.
Dinner is on your own.
Fairfield Inn and Suites
503 East Danenberg Drive
El Centro, CA 92243.
Phone: 1-(760) 353-2600
<http://www.marriott.com/hotels/travel/plfif-fairfield-inn-and-suites-el-centro/>

Sunday, January 16

- 6:30 a.m. Breakfast begins at the hotel buffet
- 7:00 a.m. Load bus
- 7:15 a.m. Depart hotel
- 9:00 a.m. California Overland Desert Adventure:
Split Mountain Tour
Hiking is not required
(Lunch provided by California Overland
Desert Adventures as part of their tour)
<http://www.californiaoverland.com>
- 5:30 p.m. Load bus
- 7:00 p.m. Return to your room at the
Fairfield Inn and Suites.
Dinner is on your own.

Monday, January 17

- 6:30 a.m. Breakfast begins at the hotel buffet
- 7:15 a.m. Load bus
- 7:30 a.m. Depart hotel
- 8:00 a.m. Obsidian Butte and
Salton Geothermal Field
- 9:00 a.m. Load Bus
- 9:30 a.m. Salton Sea State Recreation Area
Visitor's Center
- 10:30 a.m. Load Bus
- 11:00 p.m. Lunch—Cottonwood Visitor's Center,
Joshua Tree National Park
- 12:00 p.m. Load Bus.
- 12:00-3:00 Tour Joshua Tree
National Park (with several stops.)
- 6:00 p.m. Arrive back at Pasadena's Paseo
Colorado shopping center at 280 East
Colorado Blvd. in Pasadena, CA



Contact Person: Teresa LeVelle, 818-383-2385

Skeptics Society Geology Tour, P.O. Box.338, Altadena, CA 91001. Or fax to: 626/794-1301. Or phone us at 626/794-3119.
Font's Point. Photo by Michael Gilmore

JANUARY 15-17, 2011

PALOMAR, ANZA-BORREGO, SALTON SEA, AND JOSHUA TREE

SKEPTICS SOCIETY
PARTICIPANT RELEASE AND WAIVER

(All participants must complete this form for high-risk activity trips. i.e. hiking, rock climbing, desert/beach trips, etc.)

1. I AM AWARE OF THE RISKS OF CHOOSING TO PARTICIPATE IN THIS ACTIVITY. I ASSUME AND ACCEPT THE RESPONSIBILITY FOR THESE RISKS:

I am aware that participating in the geology tour on January 15-17, 2011 involves risks of personal injury, property damage and other associated risks. The activity has been explained to me, including the risks involved in participating in this activity, and I understand these risks.

I voluntarily agree to participate in this activity. I freely agree to assume and take upon myself, full responsibility for any such risks of loss, property damage or personal injury, including death, that may be sustained by me as a result of participating in this activity whether caused by the negligence of the Skeptics Society or otherwise.

2. I PROMISE NOT TO SUE THE SKEPTICS SOCIETY OR THE TRIP LEADERS DONALD PROTHERO AND TERESA LEVELLE FOR ANY INJURIES OCCURRING WHILE I AM PARTICIPATING IN THIS ACTIVITY:

In consideration of the Society's efforts in making this educational trip available and my being allowed to participate, I hereby agree to release, indemnify, hold harmless and forever discharge the Skeptics Society, its directors, officers, employees, editorial/advisory board and agents, as well as the trip leaders Donald Prothero and Teresa LeVelle, from any and all claims and causes of action which might be brought by me or my parents or dependents on my behalf for loss of property, personal injury or death sustained by me arising out of any travel or activity conducted during the period of my participation in the above named activity. I understand that this release covers liability claims and actions caused entirely or in part by any acts or failures to act of the Skeptics Society (or its directors, officers, employees, editorial/advisory board and agents), Donald Prothero or Teresa LeVelle including but not limited to negligence, mistake or failure to supervise by the Society or tour leaders.

3. I WILL REIMBURSE THE SKEPTICS SOCIETY OR THE TRIP LEADERS DONALD PROTHERO AND TERESA LEVELLE FOR ANY COSTS IT INCURS DUE TO INJURY OR DAMAGE RESULTING FROM MY PARTICIPATION IN THIS ACTIVITY:

I agree to indemnify the Skeptics Society, Donald Prothero or Teresa LeVelle for any loss or costs, including medical bills, court costs and attorneys' fees that it might incur due to injury or damage resulting from my participation in this activity.

4. THIS AGREEMENT WILL ALSO PREVENT MY FAMILY FROM SUING THE SKEPTICS SOCIETY OR THE TRIP LEADERS DONALD PROTHERO AND TERESA LEVELLE:

It is my intent that this Agreement shall bind the members of my family and spouse, if I am alive, and my heirs, assigns, and personal representative, if I am deceased. This Agreement shall be deemed as a release and consent not to sue regarding any claims these parties may have against the Skeptics Society or the trip leaders Donald Prothero and Teresa LeVelle relating to my participation in this activity.

5. This Agreement shall be construed in accordance with the laws of the State of California. In signing this Agreement, I acknowledge that I have read it and understand it, I agree to be legally bound by it and that I sign it voluntarily.

IF PARTICIPANT IS UNDER EIGHTEEN (18) YEARS OF AGE, THE SIGNATURE OF A PARENT OR LEGAL GUARDIAN IS REQUIRED.

Participant's Signature

Date

Printed Name

Participant/Parent/Guardian Signature

Date

Printed Name

*Please return this completed form to:
Skeptics Society, P.O. Box 338, Altadena, CA 91001*

YOUR TRIP REGISTRATION WILL NOT BE COMPLETED WITHOUT THIS FORM

JANUARY 15-17, 2011

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SKEPTICS SOCIETY

PARTICIPANT MEDICAL INFORMATION FORM

(All participants must complete this form for high-risk activity trips. i.e. hiking, rock climbing, desert/beach trips, etc.)

Participant's Name

Birth Date

Insurance Provider

Insurance Telephone

Insurance Address

Date

Doctor's Name

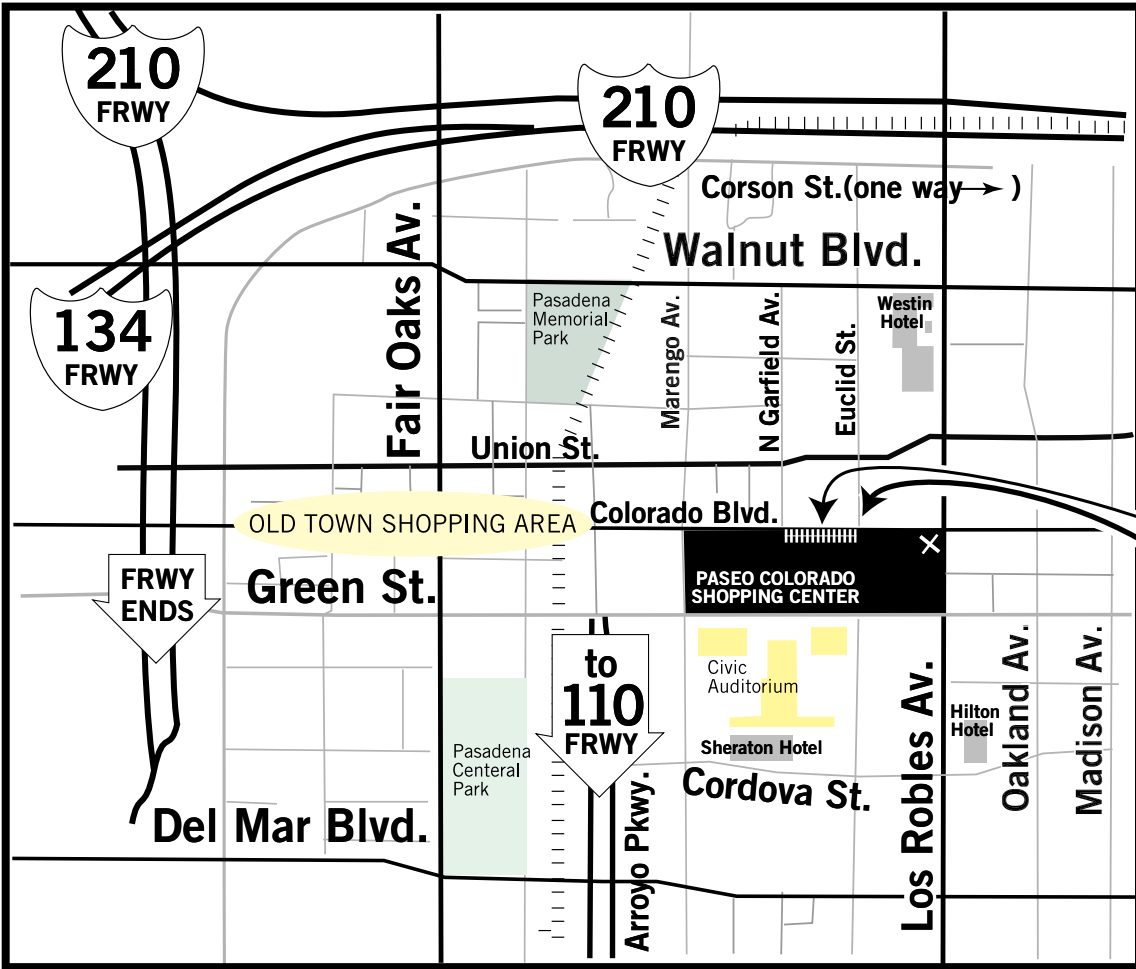
Doctor's Telephone

Contact Person (in case of emergency)

Contact Person's Telephone

*Please return this completed form ALONG WITH A COPY OF YOUR INSURANCE CARD to:
Skeptics Society, P.O. Box 338, Altadena, CA 91001*

YOUR TRIP REGISTRATION WILL NOT BE COMPLETED WITHOUT THIS FORM



You may park at the
**Paseo Colorado
 Shopping Center** at
 280 East Colorado Blvd.
 Pasadena, CA 91101.

Parking is \$9. per day.

BUS WILL LOAD
 ON THE SIDEWALK IN FRONT
 OF THE PASEO COLORADO
 SHOPPING CENTER
 ON COLORADO BLVD.,
 (the striped area between
 N. Garfield Ave. and
 Euclid St.)

Enter the shopping center's
 underground parking area
 from Colorado Blvd.

Turn at Euclid St. to
 drive down the ramp
 and under the building.

(A Starbucks is located
 on the corner of
 the shopping center
 at the white "X".)

