

# The Explorers Club Northern California Chapter

March 2004

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## Sebastopol March 27, 2004 Eugene Boudreau

At Home with  
the Tarahumara of the Sierra Madre

Chapter member Eugene Boudreau (FN'02), and his wife Sybil, have invited the other members to their home for an afternoon of conversation and an early evening dinner. Those who attend will be delighted to see the many objects they have collected over the past forty years while Gene has practiced geology in one of the 'wildest' places on the continent, south of the border in the Sierra Madre of northern Mexico.

Gene Boudreau began investigating the old Spanish gold and silver mines of Chihuahua and Sonora shortly after leaving Cal; he quickly became as intrigued with the indigenous people of the mountains as he was with the geology. He became a scholar of both. The Tarahumara, a folk of legends since the days of the Conquistadores, were particularly known for the role they played during the 1910 uprising, the times made famous by Pancho Villa. They

are a proud people close to the land; generous to friends and vicious as enemies. Gene is a friend and has lived and worked with the many folks he knows there on numerous trips to mine or just to visit and learn. All the time gathering ethnological treasures. While he has ample photographs and examples of their art and tools, which you will see, the bulk of his collection was donated to the Smithsonian in the 1990s. Since, he

Continued on page 2

Tarahumara women weave two different kinds of blankets. The one on the left—rectangular in shape with fringes on either end—is a *frazada*. The one on the right—nearly square, with corner tassels instead of fringes—is a *tiruta*. Both types of blankets are used as bed coverings, outer garments, and makeshift bags.

The weaver's photo was taken by Gene just before selling her blanket to him.



Our host, gathering blankets in Mexico.



### NEW DAY & LOCATION

**Date** Saturday, 27 March 2004

**Place:** Boudreau home  
1209 Beattie Lane,  
Sebastopol

**Time:** 3:30 pm, cocktails  
5:00 pm, dinner

**Cost:** we are guests of  
Gene & Sybil Boudreau

Reach Steve at  
[nauticos@oceaneearth.org](mailto:nauticos@oceaneearth.org)  
or 925 934-1051.

Reservation Form on page 5  
Please reserve promptly!

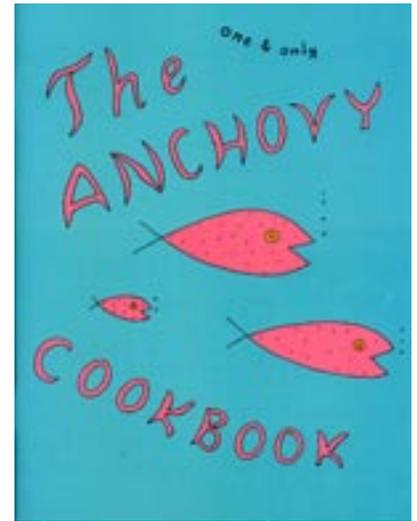
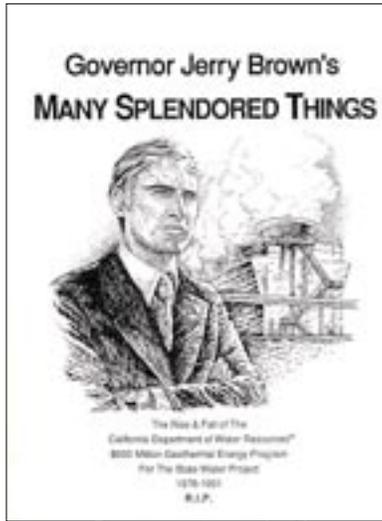


has continued to gather; as you will see.

The Director of the National Museum of Natural History stated, "Our curatorial staff considers your collection...to be the most important private collection of twentieth century materials from Northern Mexico in existence." The Eugene H. Boudreau Collection more than doubled previous holdings by the Smithsonian.

This will be a very special meeting and a chance to visit in a relaxed atmosphere. You will have a choice of prime rib roast of beef or Gene's speciality catfish— or both! He will raffle several Tarahumara artifacts he has collected with all proceeds going to the chapter!

You may wish to obtain some of Gene's books, for he is an accomplished author. **Chubasco: A Novel of the 1910 Mexican Revolution** is an intense romp into the personalities and cultures at the time of the revolution in Northern Mexico, a thinly veiled ethnological treatise with a good story. **Governor Jerry Brown's Many Splendored Things** deals with the reality and political urgency involving The Geysers Geothermal Energy Program,



Boudreau's publications span a wide range: a harsh critique on California's DWR to a cookbook!

scientific measurements versus environmental desire. He has several booklets on the Sierra Madre and Tarahumara as well; all written in a style unique and inviting.

All chapter members, each with a guest, are welcome; prospective members are invited too.

### Gene's map to the Boudreau home in Sebastopol is on Page 4.

## Finding Artifacts with Portable Magnetometers Sheldon Breiner Palo Alto

Our chapter member Sheldon Breiner (FN'78) wrote the book on geomagnetics, literally. Some 900,000 copies have been distributed\*. This night he presented the 'why' that the magnetic field can be used to find hidden objects and showed many examples of 'how' this remote sensing technique is used. His extemporaneous enthusiastic presentation not only communicated his mastery of the subject but kept the attentive explorers intrigued and amused.

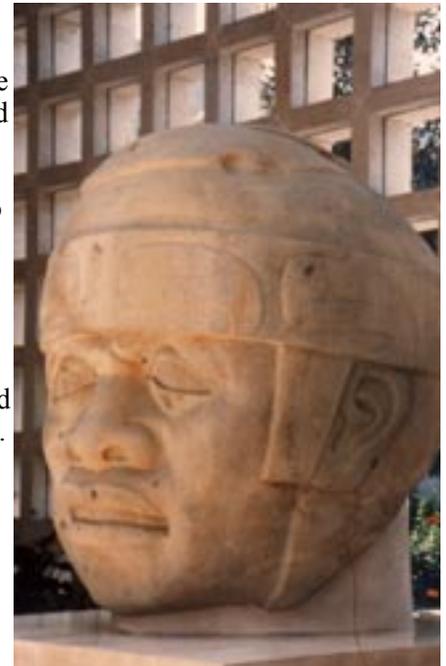
His emphasis was placed upon seeking hidden objects in the field of archaeology. The more financially lucrative exploration for minerals or petroleum, the search for submarines and buried utility pipes, monitoring for elusive weapons or munitions— these are the supporting uses that have allowed Shelly to follow his avocation of searching for man's cultural remnants. And, he has done this around the world.

He claims his most spectacular find was among the easiest. The huge Olmec head found in the jungle near San Lorenzo was buried at a depth of some 20 feet, adjacent to another large boulder of little consequence. The magnetic signal appeared at the edge of an extensive survey area, but it was significant.

Proper interpretation of the complex surface measurements allowed the discovery, and the monument now dominates the entry to the Jalapa Museum. Hundreds of lesser monuments were also located within the site, and many other surveys have identified potential places to dig. Someday.

He is currently helping fellow chapter member Edward P. Von der Porten's (FN'80) attempt to find a Manila Galleon along Mexico's Pacific Shore; examples of Ming Dynasty china found amidst the sand dunes have given encouragement they may be close.

This evening several colleagues of long standing attended, remembering some of Sheldon's earliest magnetic surveys. Forty years ago he introduced high-resolution magnetic surveying to archaeology at the University of Pennsylvania excavations of ancient Sybaris in Calabria, Italy. Surveys were run in the Etruscan ruins north of Rome too. In those days, intensive measurements were also made in support of monitoring open-air atomic-bomb testing: Explorer Palmer Dyal (FN'80), in the audience, was then the government's project manager (using similar magnetic sensors in space.) John Behrendt (FE'78), visiting from



Breiner

the Rocky Mountain Chapter, used the magnetometers in the Antarctic. Robert Rorden, a guest, crafted the devices when working at the Varian Associates laboratories under the direction of Dr. Martin Packard, also a guest. Chapter Vice Chair, Lee Langan, was part of this team too. A technical foundation was established for the newly invented magnetometers to become world standards: a foundation upon which Breiner built expansive uses.

Magnetometer surveying is a noninvasive technique. A highly sensitive magnetic sensor is carried over the surface; its associated electronics now record the amplitude of the signal as well as the location (using global positioning.) Mapping software creates a number of presentations to emphasize the strength of the observed signal. It takes knowledge of the complexities of the dipolar nature of the magnetic field to interpret these maps; with such, an identification of what might lie below is possible.

The success of finding anything is based upon a magnetic signal. Certain elements have this characteristic, and their presence creates changes in the overall magnetic field of the earth. A compass tells the user the direction of the earth's field; a magnetometer records the strength at this direction. All magnets, from those you can handle to atomic-level size, have two poles. Most often, in the subsurface, they are randomly present so no identifiable signal results. However, magnetic particles have a unique characteristic: when heated, then cooled, they align together in the resulting brick or pot or roof tile. These man-made tools can stand out, as can materials of a different geologic composition (the Olmec heads or a ship's ballast.) In some cases bacterial activity can create a magnetic alignment in soil; a grave or tomb vault may then provide a negative signal.

In this complexity it is the understanding use of a high-resolution magnetometer that was shown this evening by the expert.

**\*Applications Manual for Portable Magnetometers**, Breiner, S. 1973. ©USA 1999 by Geometrics. Can be obtained either online at <http://www.georentals.co.uk/ampm-opt.pdf> or contact Geometrics, 2190 Fortune Drive, San Jose, California 95131

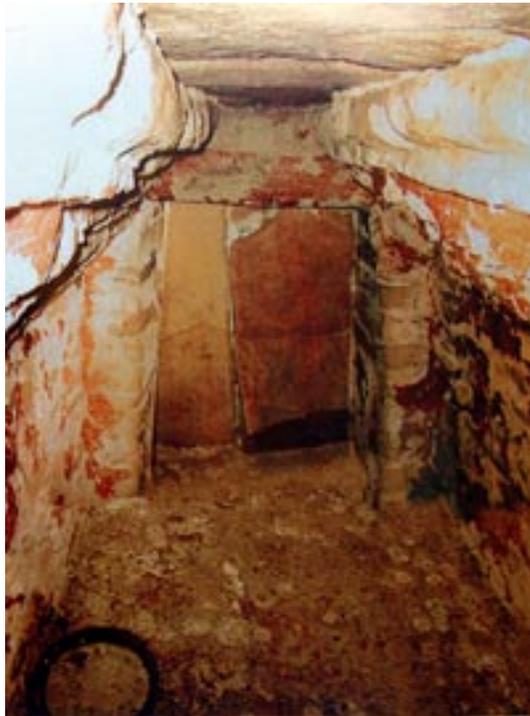
## Maya Tomb in Palenque's Temple XX

Merle Greene Robertson & Lee Langan  
Return Flag 139 to Chapter

Lee Langan and Merle Robertson, with Flag 139, presenting it to former Chapter Chairman Dr. Robert Schmieder in Palo Alto.



Breiner



The finding of an ancient buried tomb is a delight for any expedition. While this may be hoped for in conducting a dig, the prospects are only very slim. The chance removal of a rock in a pit dug into the side of a dilapidated pyramid in the jungle led to an unbelievable discovery. Here was an unknown tomb undisturbed since 500 AD.

The Flag 139 Report describes the contents of an ancient Maya tomb located in Temple XX Sub at Palenque, Chiapas, Mexico. The exploration to date has been accomplished by access through the small opening by taking digital photographs. Drawings of the wall art were then created. Temperature measurements were made within.

Merle and Lee passed around some of the report art; they plan to show a short movie of the tomb's interior at a future meeting.

Pete Parsonne

Gavie Walker



The Mayan tomb interior is shown facing the stone slabs that have protected it from being looted over 1500 years. The red art on three walls depicts a total of nine figures; there are 11 ceramic bowls exposed on the floor and many beads.

Merle & Lee, in the field, standing before Temple XX at Palenque.

**Oscar Lopp (MN'92)**

was clearly loved by those who knew him. Pick yourself out in these memories. As reported last month, Oscar died on January 10.

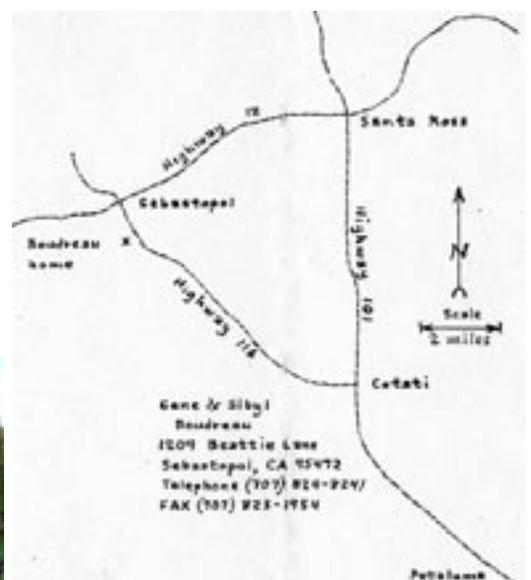
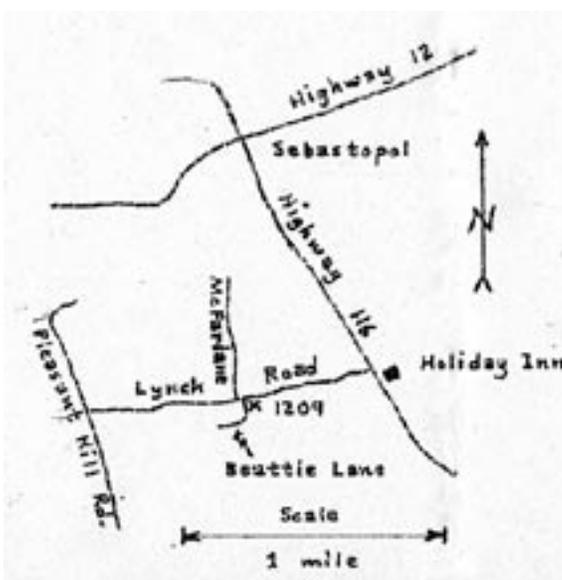


Photos from the activity of Oscar Lopp's Mountain Medicine Institute (thank you Dr. Mark Stinson)



**Gene's directions to the Boudreau home in Sebastopol**

(50 miles from Golden Gate Toll Plaza;  
7 miles along Hyw 116 from US 101;  
0.5 mile along Lynch Rd)



# The Chapter Chair

Dear Northern California Explorers:

As you may imagine, excitement is building among those of us preparing for flights to New York in the next two weeks. March 18<sup>th</sup> begins the four-day 2004 Explorers Club Annual Dinner (ECAD) weekend; this year our club celebrates its Centennial Anniversary. Themed "A Century at the Forefront of Exploration," this ECAD promises to be an event to remember. The centerpiece is, as always, the banquet at the Waldorf Astoria. Exhibits, exotic foods, a silent auction of expedition memorabilia and exploration-related gear, all presage the dinner program in the Grand Ballroom. A highlight will no doubt be the appearance of our Honorary Chairman Sir Edmund Hillary, as well as Honorary President Jim Fowler and his usual retinue of interesting animal friends. I'm pleased to report that our chapter will be well represented in New York this year by the many chapter members attending.

No less important is the annual Chapter Chairs gathering on Friday, March 19<sup>th</sup>. As your Chair, I will be representing your interests at this meeting when we review the club's performance for 2003 and its plans for the coming years. This meeting also provides a forum to communicate a view from the 'outback'. The opportunities to meet face-to-face with the national officers are rare indeed. I, therefore, solicit your ideas and issues to carry with us. If you have a gripe, a plaudit, or a question, please communicate them to me before March 16<sup>th</sup>, and we will do our best to address them at the Chair's gathering. In any event, we will look forward to reporting on our experiences in the next newsletter.

Those of you who read the Expedition News may have noted the ambitious aspiration of one of our club

members to perform a centennial celebration of his own. Col. Norman Vaughan (last surviving member of the original Byrd expedition and a speaker at one of our Golden Gateaways) is planning to climb his namesake Mt. Vaughan in Antarctica on Dec 19<sup>th</sup>, 2005— at the age of 100. Personally, I can't imagine a better expedition to support. To this end, I have arranged to secure four copies of Col. Vaughan's books (two of each), which we will auction to the highest bidders over the next few meetings. The proceeds will be sent to support his endeavor. To make these contributions more meaningful, Col. Vaughan has agreed to personalize each book to the successful bidder. If any of you would care to take part in the bidding and are unable to attend one of our last few meetings, please let me know, and I will put your bid into the hopper.

Most of you should have by now received your Centennial Roster from New York. As you know, member Sue Estey has been diligently working on our 2004 update of the Northern California Chapter roles, which we expect will be completed as soon as Sue returns from Indonesia. In the interim, please take a look at the National Roster and note any errors in your information. We use the national roster to fill in the blanks of our own data, so errors sometimes propagate. Contact Sue or any of your officers with changes. This may be your last chance to do so.

Once again my thanks to all of you who have sent in your dues for 2004. To date, we have received dues renewals from almost 40 of our Northern California Chapter members. This is a great response, but it still represents less than 25% of chapter members who receive the newsletter each month. If you value the information and connection you get in the newsletter, please consider remitting your support. If, on

the other hand, it ends up in the bottom of your parakeet's cage, let us know that as well, so we can remove you from the distribution list.

Lastly, make sure to note the venue change for our next meeting. I look forward to seeing you in Sebastopol on March 27<sup>th</sup>.

—Stephen E. Smith (FN'96)

## Evolution

### @ The Explorers Club

Last month the topic of an ECAD poster was presented. I must say that no response was surprising. Then, again, a plea for a 'reporter' to be intent when folks are telling about going places also resounded into the ether not to be heard again. On the bright side, Susan Dutcher helped generously welcoming folks at the Breiner talk; Mort Beebe arranged for use of our co-owned video projector and Mike Diggles went the extra mile to assure all the audio/video worked well by meeting with the speaker in advance.

Participation can undertake some task related to the operation of the Chapter: arranging a meeting, hosting an event by checking attendance and tickets, finding a good locale, making sure the audio-visual arrangements are made, helping the speaker. Working on special projects, like the roster. Or, helping distribute the newsletter, writing an article, being liaison with the National newsletter. Or, seeking new speakers of interest. Or, arranging a field trip. Or, working to make the annual picnic a success (call Anders as June is not that far off, and we hope for a successful outing!) In all of these tasks, many hands make light work. Light work makes for fun together and a chance to know each other.

(Oh, ECAD organizers contacted Steve to say that posters would not be used this year...alas, so perceptive.)

—Lee Langan, FN'99

### Annual Northern California Chapter dues for 2004: \$20.

Name: \_\_\_\_\_

Address (if changed): \_\_\_\_\_

Please reserve \_\_\_\_\_ spaces for March 27, 2004, at the Boudreau home. Dues-paid members & one accompanying guest are invited as the Boudreau guests. Prospective members with a guest are also welcome. (contact Steve at [nauticos@oceanearth.org](mailto:nauticos@oceanearth.org) or 925 934-1051 to assure a reservation). (Dues not yet paid? Send \$20, each.)

Name: \_\_\_\_\_

Address (if changed): \_\_\_\_\_

Guest: \_\_\_\_\_

Please mail this form to:

Dr. Stephen E. Smith  
402 Via Royal  
Walnut Creek, CA 94596

meal choice (please circle):

roast beef

catfish

Reservations must be made by Tuesday, March 24!

## **Northern California 2003-2004 Event Calendar**

(Mark the dates! Venues will be identified at time of event.)

October 3, 2003	Thierry Thys	"Private Piloting Across Russia"
St. Francis Yacht Club, San Francisco		
November 7, 2003	Issa Mohamed	"Ancient Manuscripts of Timbuktu"
Sinbad's Restaurant, San Francisco		
December 5, 2003	Alan & Shan Nichols	"A 2300-mile Father/Son Odyssey Through Central Asia"
Sinbad's Restaurant, San Francisco		
January 16, 2004	Dana Isherwood	"Tibet in China Today"
Sinbad's Restaurant, San Francisco		
February 27, 2004	Sheldon Breiner	"Remote Sensing in Archaeology"
Sheraton, Palo Alto		

**March 20, 2004**  
**New York**

**ECAD**

**100 Years of The Explorers Club**

**March 27, 2004**  
**Sebastopol**

**Eugene Boudreau**

**"At Home with the Tamahumara of Northern Mexico"**

April 30, 2004

Rupert Isaacson

"The Bushmen of the Kalahari"

San Francisco

June 4, 2004

Greg Crouch

"Enduring Patagonia"

San Francisco

June 19, 2004

Chapter Picnic

Contact Anders Jepsen to help: <[ajviking@aol.com](mailto:ajviking@aol.com)>

Please note venues and dates with care.

The March 27 Saturday meeting is at

1209 Beattie Lane, Sebastopol

In full and lively color!

To experience this newsletter in color,  
see the 'pdf' version at our web site.

(When copying the URL addresses be sure to keep them all on one line; most are also available as links on our Chapter web site.)

*March 2004*

Dr. Stephen E. Smith

The Explorers Club

Northern California Chapter

402 Via Royal

Walnut Creek, CA 94596

