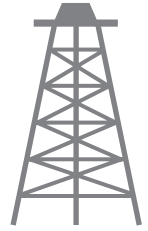




Pacific Petroleum Geology



NEWSLETTER

Pacific Section • American Association of Petroleum Geologists

May & June 2020

COVID-19: Taking Care of Business While Accommodating Social Distancing



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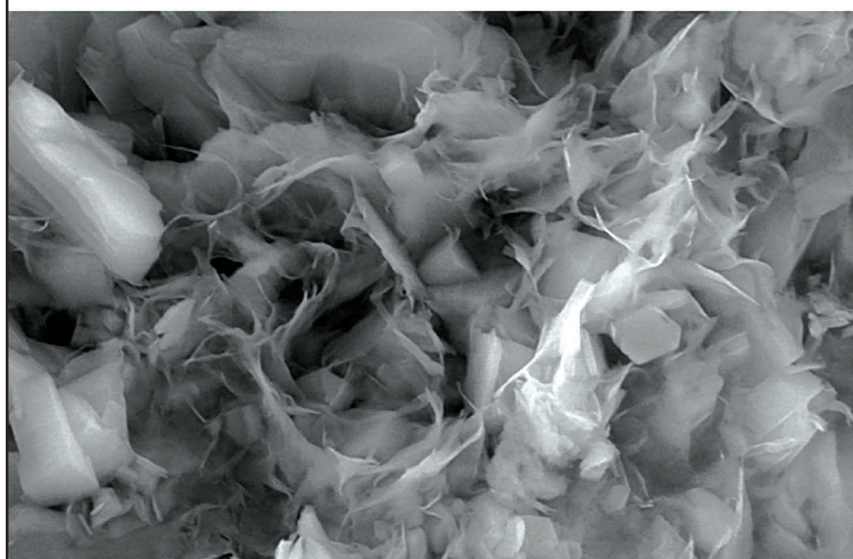
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4	President's Message	<i>Becca Schempp</i>
5	Online Zoom meeting announcement	<i>Rick Behl</i>
6	Using Video Platforms to Stay Connected	<i>Becca Shempp</i>
7	In Memoriam: Tom Hopps	
14	In Memoriam: Bob Hindle	
16	Member's Travel: A Wedding trip to Thailand and Kenya	<i>Wanjiru Njuguna</i>
18	Member's Travel: Visiting Santorini, Greece	<i>Renee Richards</i>
20	Member's Travel: Musings About Our Travel Adventure to Namibia	<i>Brian Pitts</i>
33	Member Society News	

Cover Photo: New ways of doing business during the COVID-19 lockdown. Members of the PS AAPG Executive Committee take care of important Association business via Webex. Screen shot courtesy of Rick Behl.

Submit an Article to the Pacific Petroleum Newsletter!

- CONTACT THE EDITOR at editor@PSAAPG.org
- Images (graphics, photos, and scans) must be at least 300 dpi resolution. Text should be at least 600 dpi.
- Scanned photos, illustrations (line art) or logos should preferably be submitted as a .tif, .gif, or .bmp; .jpeg

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Hello Pacific Section Geoscientists,

Our world is very different now from the last time I sat down to write to you. I feel as if I am writing to you from another year. This edition has traditionally covered our annual meeting. However, we were faced with the difficult decision to cancel our 2020 convention in Oxnard, CA. COVID-19 has changed the course of the year and more likely beyond. General Co-Chairs Renee Richards and Mark Leung, Technical Chair Jon Schwabach and the rest of their committee did a hell of a job planning the convention. I am greatly sad that we did not get to see and experience all that they had planned. I am sad that we didn't get to celebrate our members who were set to be recognized for their contributions to our society. I am sad to not have had the opportunity to catch up with you, as our annual meeting is a highlight that I look forward to each year.

However, I am grateful for the Convention Committee's patience and tenacity in wrapping up the conference, so that we can repurpose and use much of what they had planned. We do not have the details planned out for our next meeting. It will likely be in Bakersfield, CA next spring. If you submitted an abstract, we (royal we – the 2021 convention committee) will reach out to you once we have a better idea about the 2021 meeting. Field Trips and short courses may be led locally through CGS, SJGS or PSAAPG in the future. If you were looking forward to attending one of those field trips or short courses... you are not alone. We will make every effort to make them available for you. Please stay tuned for further information.

How are you and your families holding up? Many of us have been sheltering in place for six weeks; I have been working from home since March 13. I am choosing to find the joy and peace in this unprecedented period. We've been given the gift of time, something that does not happen very often. I am loving my morning walks; I am noticing things in my surrounding I never noticed before. I watched the trees

and plants along the ephemeral Kern River go from bare, wind-rattled branches to burgeoning buds. This then evolved into a magnificent tapestry of colors as each tree, bush, and weed took their turns to bloom. I hear songs from birds that may or may not have frequented these parts before. The tiniest bunnies are sheltering under the protective vegetation. These Beatrix Potter vignettes make my heart want to explode. The normal general salutations from passing bicyclists and walkers have been replaced with personal greetings, as we've come to know each other by first name.



I find I'm talking and "seeing" more people now, as the array of video apps and platforms have made video chatting much easier. For more information on the various platforms available, see my article, "Using Video Platforms and Applications to Stay Connected." It is a comfort to be able to connect with friends and family so readily and can help make sheltering in place less lonely.

Enjoy the rest of the newsletter; we will be adding more travel articles from members over the next few editions. If you have something you'd like to share, please send it to our Editor in Chief, Tony Reid. If there is something that you need or would like to hear from us, feel free to let us know.

Stay safe, stay well, stay sane.

Until next time,

Becca Schempp

President – Pacific Section AAPG 2020

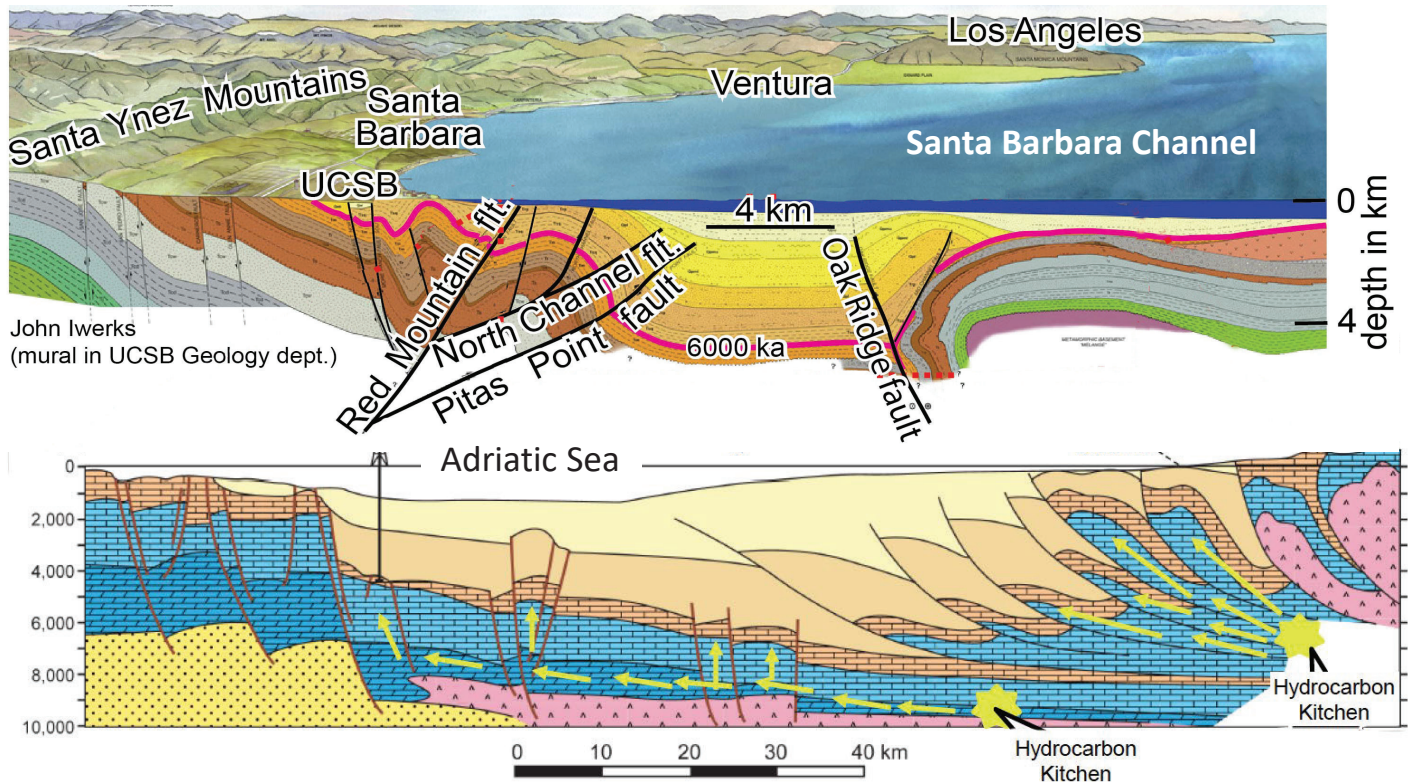
A joint geo-event of PS-AAPG, SJGS, SCGS, CGS and LABGS:

Sailing Through Undersea Fold and Thrust Belts for Science and Fun, Santa Barbara & Croatia: a Geo-travelog

Rick Behl, California State University Long Beach

Zoom at 6:30 PM, May 12, 2020

Zoom URL will be provided via email by your local society



Using Video Platforms and Applications to Stay Connected

By Becca Schempp

2020 is turning out to be a year to remember! You are most likely sitting at home like the rest of us trying to adjust to our new routine of working from home. You may be home with your partner, kids, grandkids, or even alone. Part of the adjustment is figuring out how to still be engaged with folks outside our home. It may be work colleagues, family, friends, church groups, book groups, or even other PSAPPG members.

There is an array of free applications and platforms that will enable you to video chat with one or more people. There are advantages and disadvantages to all of them. But, we hope that the summary below can provide some clarity and help when trying to decide which app or platform is best for your situation.

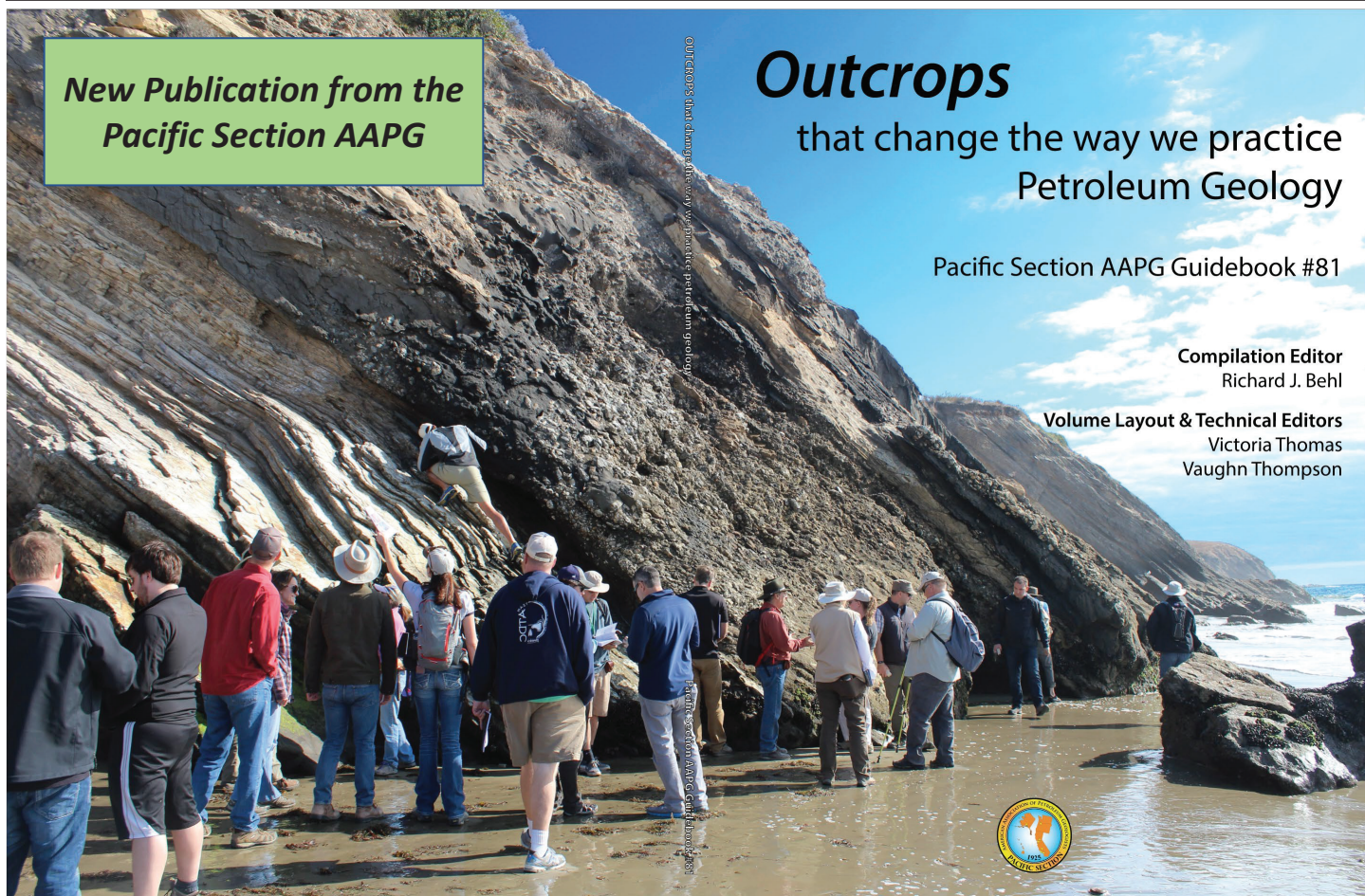
Best for Friends and Family

- Facebook Messenger (iOS, Android, Mac, Windows)
 - Best for Facebook devotees
 - Up to 8 people in free video calls, no time limit
 - It is a Facebook product, so you do need an account
- What's App Messenger (iOS, Android, Mac, Windows, Web)
 - Best for small conversations
 - Secure, popular
 - Only 4 people/call
- Google Duo (iOS, Android, Web)
 - Simple interface, use existing Google account
 - Unlimited video calls
- Marco Polo (iOS, Android)
 - Video messaging (alternative to live chat)
 - No live chat
- Facetime (iOS)
 - Best for Apple-to-Apple calls
 - Simple, up to 32 people
 - Great if everyone has Apple Products

- House Party (iOS, Android, Web)
 - Simple drop-in/drop-out group chat
 - Built in games (extra \$)
- Discord (iOS, Android, Windows, Mac, Linux, Web)
 - Great for voice chat while gaming
 - Simple video chat

Best for Meetings

- WebEx (iOS, Android, Mac, Windows, Linux, Web)
 - Free, user friendly, up to 100 participants
 - Can use WebEx app or website
- Microsoft Teams (Windows, Mac, Linux)
 - Best for Office 365 fans
 - Chat, video meetings, audio calling, and Office apps all in one hub
- Skype (iOS, Android, Mac, Windows, Linux, Web)
 - Best for cross-device calling across PCs, Macs, and mobile devices
 - Good for many participants, up to 4hrs/call
- Zoom (iOS, Android, Mac, Windows)
 - Free, user friendly, 40 minutes/call
 - Security concerns, "Zoom Bombing"



**New Publication from the
Pacific Section AAPG**

Outcrops

that change the way we practice
Petroleum Geology

Pacific Section AAPG Guidebook #81

Compilation Editor
Richard J. Behl

Volume Layout & Technical Editors
Victoria Thomas
Vaughn Thompson

PS-AAPG Guidebook # 81

Outcrops that change the way we practice petroleum geology:

2020 Pacific Section AAPG/SEPM/SEG Conference

Outcrops that changed the way we practice petroleum geology:



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Table of Contents

Field Guides

Field Guide #1: Petroleum migration in an active petroleum system, Santa Barbara Basin, California, USA Richard Behl and Marc Kamerling	1
Field Guide #2: The Salinas Basin, Central California, USA (Petroleum System in Outcrop) Tess Menotti and Stephan Graham	31
Field Guide #3: Petroleum traps and structures along the San Andreas convergent strike-slip plate boundary, California, USA Thomas Davis and Jay Namson	53
Field Guide #4: The Monterey Formation at Shell Beach, California Jon Schwalbach and Kevin Bohacs	87

Guidebook #81 is available for purchase NOW
Cost: \$36.00

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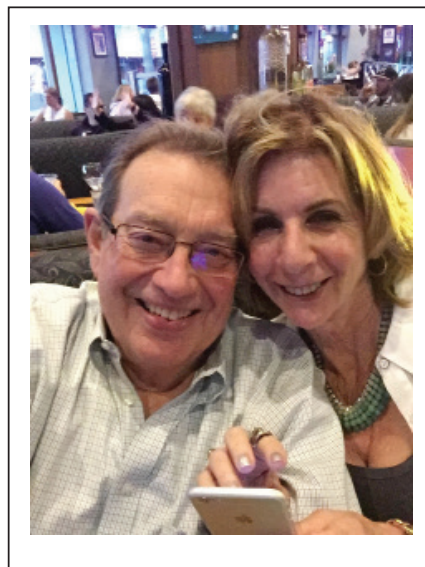
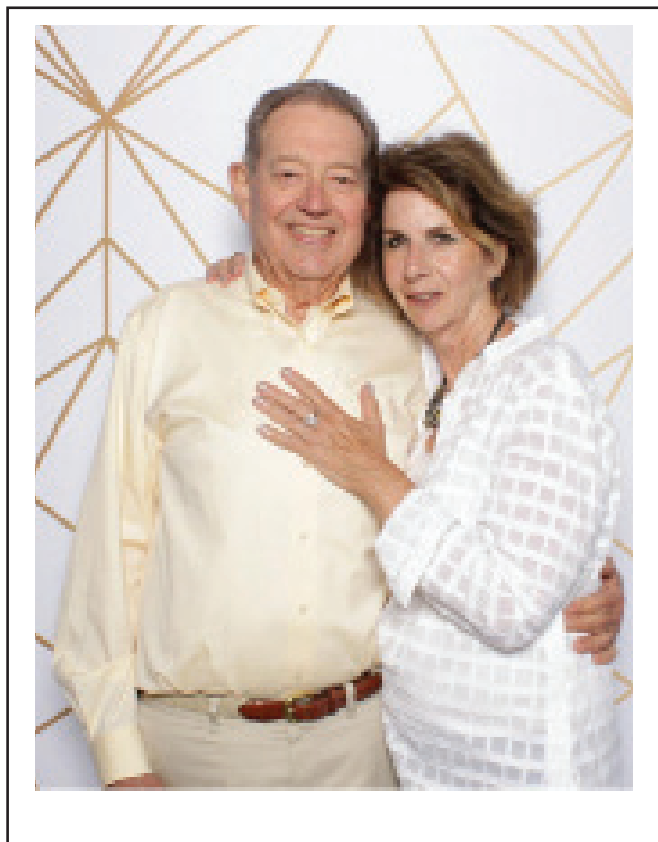
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Thomas Edward Hopps (1942 - 2020)



Thomas Edward Hopps, Pacific Section of AAPG Honorary Life Member and Past- President, passed away in the early morning hours of Friday, April 24, 2020 in Ventura, California. Tom was surrounded by his loving family and went peacefully at his favorite time of day, coffee-time. Tom was born in Alhambra, CA on May 10, 1942, and moved to Ridgecrest at an early age. He spent his youth enjoying the wonders of the desert, as well as working in his father's sheet metal shop. Tom attributed much of his work ethic and leadership skills to those early years, when, as a teenager, he learned how to fix almost anything and also gained experience managing worksite personnel for his father. After graduating from Burroughs High School in Ridgecrest, Tom attended Cal State Long Beach, receiving his B.S. degree in geology in 1969.

During college, Tom worked part-time for Signal Oil and Gas Company, where he cemented his education and learned some important lessons about oil company life, including discovering his meticulous talent for drafting. After graduating, Tom became a field geologist for the Burlington Northern Railroad in Montana. It was during this time that Tom was locked into love by the woman who would change his life — Lydia. The two were married in 1971 at the Biltmore in Montecito, CA and they settled just down the road in Ventura — their home for the next six decades.



Tom and Lydia Hopps. The power couple. After six decades together, they were only getting stronger. The world is a better place for their philanthropy, generosity, guidance, and community service.

In Ventura, Tom began working for Argo Petroleum, where he became familiar with nearly all the geologic basins of California. His experience at Argo helped him launch his own consulting business in 1979, which led Tom and Lydia to form Rancho Energy Consultants, Inc., in 1982, when Tom's real adventure in the Oil Industry began! Tom became the resident geological expert of the Ventura Basin, and his Ventura Basin Study Group's interpretations, maps and cross sections are the quintessential foundation for the area. Tom's work in the Ventura Basin forms the foundation for all who venture there. Most recently, Tom was a key part of a geological/geophysical group that made significant oil discoveries in the Southern San Joaquin Basin. His wise council and well site experience will be sorely missed in those projects.



The Hopster was always a hands on business partner that emulated one of his favorite phrases, as shown on his T-shirt: "Rise early, Work Late, Strike oil". With Tommy is his long time dear friend and business partner, Terry Budden.



Tom and Daniel hanging out at a recent drill site. Tom loved his time sitting wells. He even managed to prepare gourmet meals while in his trailer.

In the geological community, Tom was revered as a mentor to many and a friend to all. Even with his considerable knowledge, Tom still loved learning from those around him as well as from the earth below. Tom was a philanthropist to many local charitable organizations and served on many committees within the Pacific Section of AAPG.



Tom admiring an outcrop on the 2018 SJGS Ridge Basin Field trip (led by Daniel E Schwartz).

Do not be deceived by the size of the backpack, I assure you it only contains the essentials. In Tom's case, the essentials on a field trip include little more than a windbreaker, and his favorite meal: a peanut butter sandwich with a "dollop" of peach jam, as he would say.

Tom loved getting into the field any opportunity he could.

Tom joined the AAPG in 1967 while a student and has been active in local Society activities since 1975. He has served as Secretary, Vice President and President and Cooking Chairman of the Coast Geological Society. He also served as Finance Chairman, Operations Coordinator, Cross Section Committee Chair and field trip leader for the Pacific Section of AAPG. Most recently, since 2000 to present, Tom served as the Coast Geological Society Honors and Awards Committee Chair. In 2000, Tom was awarded the Pacific Section of AAPG's highest accolade, Honorary Life Membership.



Another PSAAPG party at Tom and Lydia's. This shot was taken at the 2018 handover party. These friendly faces are some big names in PSAAPG history. For they are the Past-Presidents.

From left to right: Mark Wilson (1995-1996), Donald Clarke (2008-2009), Mr. H (2002-2003), Mike Nelson (2017-2018), Rick Behl (2018-2019), Tony Reid (2012-2013), Joan Barminski (2005-2006), and Larry Knauer (1996-1997).

Tom was very passionate for volunteering, especially in the Pacific Section of AAPG. When Tom was President of the Pacific Section of AAPG, in 2003, he began what has become the Section's most celebrated event, the Handover Party. The main purposes, in Tom's words, are indicated below. They convey his views of what he thought about us as volunteers; he was proud, grateful, and determined not to see our hard work go unnoticed. Tom conveyed this sentiment through all his relationships:

1. To have fun.
2. To show our appreciation to the outgoing administration and their families for their service. That was especially important in 2003 because we initiated a policy of holding ExCom meetings, with and at each of the local society meetings in California. The purpose was to help demonstrate that those societies were each an integral and important part of Pacific Section and that the Executive Committee was keenly interested in their well-being. Those visits required perhaps more time, expense and preparation from each of the committee members than they thought they signed up for, and that service needed to be visibly acknowledged.
3. To provide an informal forum where the incoming administration might get some insight to the behind-the-scenes workings of the ExCom and to help build relationships that would be useful to them during their tenure.

4. To provide a relaxed setting in which to ask people to volunteer for various tasks the Pacific Section wished to have done. This objective required having people present who will agree to do some volunteer work and who may not actively participate in ExCom meetings. We recognized the people that the Pacific Section can usually count on to say yes to a request are the same people who have said yes before. Accordingly the invitation list included most any past president who could move under his or her own power, recently past ExCom members, local society presidents and vice-presidents (and sometimes past presidents), Pac Section members serving in any capacity with national AAPG and anyone else that an ExCom member wanted to build a relationship with for the benefit of the Pacific Section.



A prime example of a typical Hopps party. This shot was snapped at the PSAAPG Handover Party at Tom and Lydia's place in Ventura, California, August 14, 2015.

Back row: John Williams, Don Clarke, Mike Riddle, Jason Minch, Ariel Auffant, Bob Blackmur, Kathleen Blackmur, Jean Kulla (hiding behind Allen), Mike Wracher, Kurt Neher, Nicolas Thomas
 Middle row: Dina Schwalbach, Cindy Williams, Lisa Alpert, Randy Stephenson, Mark Wilson, Corinne Allan, Malcolm Allan, Allen Waggoner, Luisa Neher, Vicky Thompson, Larry Knauer
 Front row: Jon Schwalbach (seated), Brenda Stephenson, Cynthia Clarke, Lydia Hopps, Tom Hopps, Vaughn & Lucas Thompson, Barbara Waggoner, and to the far right seated, John Minch.

Over the years, Tom has shared his geologic expertise through the extensive publication of technical articles and basin studies in leading scientific journals, and he was near completing a co-authored publication on the Santa Barbara Channel when he passed.

Tom was both a go-getter and a dreamer, and he had the perseverance to turn those dreams into reality. Although the dreams never stopped, Tom had a gift for being present in the moment — appreciating his accomplishments and those of others, as well as those of Mother Nature. In recent years, Tom tackled the art of cooking, where his passion for perfection led him to dream up world-class meals and perfect cups of coffee. He enjoyed creating unrivaled tastes in the kitchen, and his meals became a focal point around which family and friends would gather for love and laughter. Tom was a people-person at heart...

He was kind-hearted and generous, and always knew how to make a person smile, even when times were down. Those whom he touched are lucky to have his bright spirit, forever running through them. He will be missed by all who knew him, and he will be remembered by all those who will benefit from his legacy.



Tom and Daniel cooking up a storm. You could never walk into the Hopps house without enjoying the smell of a new concoction in the oven, wondering what it will be like. Tom cooked like he worked, with creativity, anticipation, and a smile on his face.

Tom, Tommy, Hipster, Hoppster, THE editor, Poppy, Mr. Hopps, or Mr. H as many of us loved to call him, was still coming up with new dreams when he passed. A friend of his recently said: 'If there's one person who needed thirty more years to live out all of his dreams, it was Tom'. This is true, but it's also true that he was passionately already living his dreams. He loved his work, had a dog who loved him, a fun car, a kitchen he created, a boat to cruise in, even a fireplace by the sea. And he had his Lydia, Ben and Sandra, Danny, Phoebe and Jake. There was no bigger dream he loved living than spending time with each of us who knew him—Friends and family were everything to him. He lit up with our presence and his spirit made the present more enjoyable. Tom would want nothing more than to see all those special to him keep creating new memories and dreams in the wonderful life he dreamt up.



Tom, Lydia, Ben and Rocky, Tom's little sidekick and Master, enjoying one of their favorite activities, a Ventura Harbor boat cruise.

Tom is survived by his wife, Lydia, their sons, Ben and Daniel, daughter-in-law, Sandra, and two grandchildren, Phoebe and Jake. Tom also leaves behind his brother, Robert Hopps. A small family graveside ceremony was held on April 28, 2020.

We miss you Mr. H, and your light shines on within us all,
Vaughn G. Thompson



Thomas E. Hopps (1942-2020).

In lieu of flowers, the family requests that gifts be made in Tom's memory to any of the following organizations:

-Casa Pacifica Donations can be made online at www.casapacifica.org or mailed to 1722 S. Lewis Rd. Camarillo CA 93012.

-Community Memorial Healthcare Foundation Donations can be made online at cmhfventura.org or call (805) 948-2881.

-Pacific Section of AAPG Donations can be made to the Thomas E. Hopps Memorial Fund

Online at psaapg.org or by mail to P.O. Box 1072, Bakersfield, CA 93302

From the *Ventura County Star*:

**Robert "Bob" James Hindle
December 31, 1924 - December 31, 2019**

Bob Hindle, beloved son, brother, husband, father, grandfather and great-grandfather, passed away peacefully on his 95th birthday in Camarillo, California.

He was born in Seattle, Washington to Helen and Stuart Hindle and raised from infancy in the Los Angeles area along with his younger brother Bill. Bob graduated from Beverly Hills High School and obtained a B.S. degree in Geology at U.C.L.A. in 1947. In college, he served as chapter president of the Alpha Tau Omega fraternity.

After college graduation, Bob began his career as a petroleum geologist and worked for the Barnsdall Oil, Sun Ray, Sun Ray DX, and Sun Oil companies before he retired at the age of 62. He then established the geologic consulting firm of The Hindle Enterprises and was part of the Ventura Basin Study Group. He was a member of the American Association of Petroleum Geologists for over 70 years.



Bob started his own family when he married the love of his life, Marilyn Louise Carlson, on August 2, 1952 in Los Angeles, California. Their family grew to include three children - Nancy, Tacy and Jim. He passed on his love of Broadway musicals to all of them but was the only one who had a life-long passion for stamp and coin collecting. In addition to Los Angeles, Bob and Marilyn and their young family lived in Santa Maria, California, Casper, Wyoming and Denver, Colorado before settling in Camarillo, California in 1963 where he and Marilyn remained for the rest of their lives. Over the 50 years they lived there, they developed many wonderful friendships and enjoyed playing golf and socializing at Las Posas Country Club.

Following his retirement, Bob and Marilyn traveled extensively throughout the world and acted as gracious hosts to family and friends for over 30 years at their vacation home in Avila Beach, California. They were enthusiastic fans at their three grandsons' sporting events from elementary school through college.

Bob was preceded in death by his loving wife of 62 years, Marilyn Hindle. He is survived by his brother, Dr. Bill Hindle (Susan), his children, Nancy Hindle-Katel (Ken), Tacy Hindle (Peter Rosenberg), and Jim Hindle (Kim, deceased), his grandsons, Dr. Will Hindle-Katel, Brendan Hindle (Abigail), Parker Hindle and his great-grandson, Harlan Hindle.

The family plans to hold a celebration of his life at a later date. They request that those who wish to make a memorial donation in his name do so to his parish church, St. Columba's Episcopal Church in Camarillo, California.

Published in Ventura County Star from Jan. 18 to Jan. 26, 2020

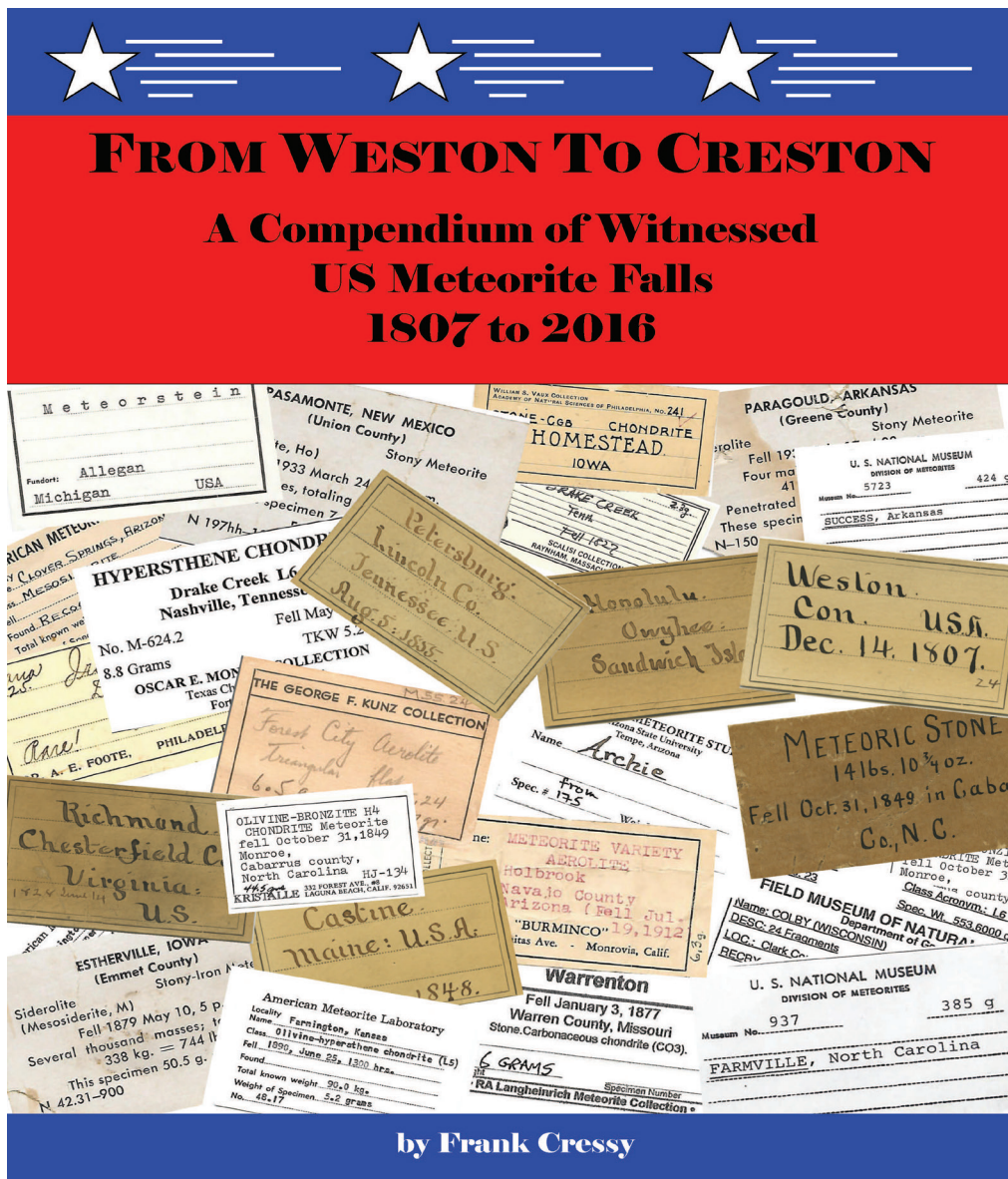
New Publication

"FROM WESTON TO CRESTON – A Compendium of Witnessed US Meteorite Falls – 1807 to 2016"

by Frank Cressy

The violent display of blazing light and explosive sounds ending with meteorites crashing to the ground is an unforgettable event to those who witness it firsthand. This book summarizes the fall histories of nearly 170 witnessed meteorite falls that have occurred in the United States since the first documented fall at Weston, Connecticut in 1807. It is written not only for the collector of these rare objects, but also for those interested in the history and the growth of the branch of science known as Meteoritics. The accounts of the fall phenomena and recoveries associated with these extraordinary events are the focus of the book. However, the book is more. The reader will learn about those individuals responsible for the growth of the science and their contributions, together with interesting facts and coincidences about these visitors from space; 257 pages with over 300 color photos plus maps, figures and illustrations.

Soft Cover books \$36.00; for ordering, contact: fcressy@prodigy.net



Recent Travel Experiences of PS AAPG Members

Editor: I am sure most of you have spent a lot of time over the last two months staring at the walls inside your homes. We have had to cancel or postpone travel plans, and the only trips now are for essential supplies. Geologists by nature need time outside to examine outcrops, take a hike, or experience other lands and cultures. As an ongoing feature, we are asking members to share their recent travel experiences in the Newsletter. In this edition, Wanjiru Njuguna, our PS Secretary, describes a trip to Thailand and Kenya; Renee Richards, Secretary of the Coast Geological Society, writes about her trip to the active volcano of Santorini in Greece; and Brian Pitts, CSUB Lecturer and our unofficial PS photographer, describes a trip he took with Kay to Namibia. Please enjoy vicariously these travel experiences.

Wanjiru and Sean's Wedding Trip to Thailand and Kenya

By Wanjiru Njuguna

I am quite sure that when Sean and I decided to get married in March 2019, he was not aware that he would need to give my father several goats. The plan was that we would travel to Thailand to introduce Sean to my sister and her family, after which we would go to Kenya for our 'goat party'. We had a year to prepare and plan. Fast forward to January 2020. Sean and I traveled to Koh Mak, Thailand. Out of my four siblings, Sean, had met three. Sean was about to meet my sister and complete the family introductions. Our routine in Koh Mak was as gentle as the waves that lapped onto the island beach.

There was a rhythm to our yoga practice (Photo 1), breakfast, swim in the warm Gulf of Thailand waters, scooter around the island surveying the rubber tree groves, and afternoon coconut oil massages. In the evening, we went for sunset walks, ate dinner, then headed off for early bedtimes, listening to the sound of frogs and crickets. Sean enjoyed staring at the island geckos – on their hunt for bugs to eat.

One morning Sean wanted to go fishing. It did not take long before he had rented two kayaks and packed up his spearfishing gear (Photo 2). My nephew Sesam (6) and I were coming along to keep him company. After a rigorous, against-current, muscle-burning paddle (Photo 3), we arrived at a very small, uninhabited-by-humans- island and parked our kayaks. Sean got to work. Sesam and I picked up shells and a few pieces of well-polished sea glass. Mother Nature was generous. Sean brought back a plump grey fish and a longer, narrower silver-blue fish. On Koh Mak, we presented our fish to the waiter at a small restaurant and waited for our meal. Half an hour later, we enjoyed garlic & lemon grilled fish with jasmine rice and a green papaya salad—a delicious BYOF (Bring Your Own Fish) lunch.

We arrived in Nairobi, Kenya, and quickly adjusted to the change in altitude and climate. We were now at ~5400' above sea level (think, mile-high city Denver, CO) and by equator (think, direct,



Photo 1. Yoga Practice



Photo 2 – Spearfishing trip

intense rays of sunlight). This combination meant you could both feel very chilled by a breeze and intensely scorched on your head or bare shoulders, by the sun.

We had a packed itinerary. First, visit the Indian Ocean and SCUBA dive. And second, celebrate our marriage by hosting a party. Our trip to Watamu, Malindi, was sweet and epic. The Watamu Marine National Park and Reserve had crystal clear waters, and the visibility during our dive extended far, as we counted the various lionfish, scorpionfish, and countless blue, orange, yellow, striped, spotted, shiny and multi-colored fish. I wish I knew the names of all the fish. At night we ate coconut, clove, cardamom, and saffron-infused dishes and local seafood. One day we ventured into town and bought presents for friends and family. We purchased 'kanga' and 'kikoi' – brightly colored cotton printed fabric, historically manufactured in India, but now fabricated all over East Africa.

My Kikuyu grandparents had 13 children, most of whom then had children of their own. My extended family was immense. Many folks who came to celebrate with us I'd never met. Or perhaps met once and had forgotten. That did not matter. We were all there in the heart of central Kenya. The traditional homeland of the Kikuyu people near Mt. Kenya, which is sacred and thought to be the place where our god - Ngai, lived on earth. We were at my cousin's compound in Mutunguru Village, surrounded by the rich agricultural landscape – the place I had spent many summers as a kid. Proof of the ideal soil and climate conditions was seen everywhere. Coffee, banana, maize, beans, cassava, arrowroot, mango, passion fruit, avocado as well as Napier grass – food for the dairy cows – all grew abundantly and surrounded us.

Cousin Simon had helped Sean purchased four goats (Photo 4). One would be a gift to my father for my hand-in-marriage. Three would be roasted and enjoyed by our guests. We had a priest bless our food, our guests, our family, and us. Sean and I (Photo 5) gave thanks – for everything. Especially for the guests who had traveled to be with us, my parents, and the traditional food that was prepared. I watched folks start work early in the morning - peeling and chopping brightly colored piles of carrots, tomatoes, onions, green vegetables, squash (Photo 6). One person prepared hundreds of 'chapatis' – made from whole wheat and rolled out into flat, round shapes – we would eat them with our hands – tearing pieces of chapati and use them to scoop up the stew. While we ate – traditional dancers (Photo 7) performed for us and sang songs in Kikuyu. Later, the DJ played tunes that were family favorites. Ones that we had danced to at other family gatherings. Songs that brought out a 'woohoo' from the crowd when the first few notes of the melody were played. Finally, my sister led us all in a traditional 'dance train', and in rhythmic unison, we stomped our feet on the ground and danced and danced. The End.



Photo 3 – Sesam kayaking



Photo 4 - goats



Photo 5 – Sean and Wanjiru



Photo 6 – Women preparing vegetables



Photo 7 – Traditional Dancers

Visiting Santorini, Greece

By Renee Richards

It is hard not to notice geology around you when travelling to new places, and when I research a destination, I always look for a few good hikes. After a little bit of looking, I found that you can hike the active volcano of Santorini in Greece! In October, I took a trip to Greece and visited the mainland capitol of Athens, as well as two islands: Santorini (also known as Thera) and Crete. It did not take long to see why Greece is a popular destination for visitors! The people are friendly, the scenery is beautiful, the food is great, and most importantly, it is affordable to have a few beers.

Santorini is in the Aegean Sea, approximately 120 miles southeast of Greece's mainland. Santorini is situated at the subduction zone of the Aegean Plate and the African Plate and is volcanically active. Santorini is also home to one of the largest volcanic eruptions in recorded history, occurring approximately 4,000 years ago. The island was once a shield volcano and what remains today is a collapsed caldera separated into three islands, the largest is the scenic Thera.



The violent eruption from the ancient volcanic blast created a column that rose at least 20 mi into the stratosphere, spreading ash worldwide. Records indicate the blast darkened the skies for months and covered the island in pumice and ash. There were massive basalt flows and lahar floods, and the magma underlying the volcano came in contact with the shallow marine water resulting in explosive formation of tuff and tephra. The caldera collapsed on the southern side of the island and folklore suggests that the city of Atlantis was lost during the collapse. Of course, I had to go check it out for myself.

You may have seen iconic pictures of Greece with white buildings overlooking beautiful blue water. Did you know that the buildings are white because they were carved out of the hillside which is composed of pumice? When I checked into the AirBNB near the town of Oia, our host was very excited to tell me about the history and culture of the region. She also gave me great recommendations of restaurants serving fresh fish with local olive oil. In the tour of the house, she mentioned many times that the window above the front door remain open. Homes that were originally carved into the hillside had no ventilation system and were essentially caves. The downstairs of the

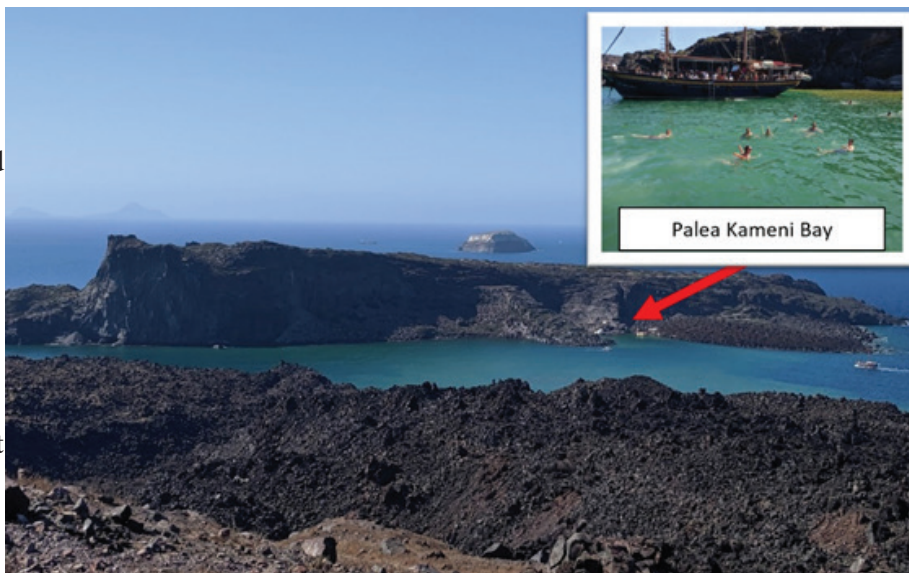


home was once a cellar because the humidity and temperature were so well controlled and insulated by the pumice. Walking through the villages on the island of Thera was magical; narrow cobbled streets and white cave homes with the ocean in the distance. Every so often, when the mist clears, you can see the other islands rising from the sea. The view from every direction was breathtaking.

Many villages on Thera are built on the side of the caldera so getting to the waterline was a treacherous feat of hundreds of stairs. For example, some of the best seafood that can be had is at the small port at Amoudi Bay, where fishermen deliver fresh stock directly from their boats. However, prepare for a workout, as getting down requires over 300 steps and 350 feet of elevation. No such thing as a free meal!

To visit the Santorini volcano, I took a scenic boat ride from the old port of Fira. After a pleasant voyage, the boat docked, and visitors were free to hike to the top of the crater. Other tourists were likely disappointed at how barren the scenery was, but I enjoyed checking out all the basalt flows.

After a nice hike on the crater, visitors shuffled back to the boat to Palea Kameni which is also volcanically active. The bay is naturally heated to about 80-85 degrees and is perfect for a swim! Wear a bathing suit that you wouldn't mind getting stained from the high iron content. Brave swimmers went in with different colors of bathing suits, but we all came out with orange ones.



Santorini was only one stop on my Greek vacation but everywhere I went was an amazing adventure. Visiting Greece was an incredible experience that I would highly recommend. There is so much to do and see from pristine beaches, architecture, temples, and even an active volcano so go try ouzo and eat some moussaka.

PSAAPG Membership Directory

The PSAAPG website will have a members-only password-protected membership directory available as of March 1, 2018

Please email SKChehal2@aeraenergy.com if you do not want your name listed. There will also be a checkbox for this on the PSAAPG membership renewal form that goes out before the end of this year.

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Musings About Our Travel Adventure to Namibia in May/June 2019

By Brian Pitts

Like many good adventures involving geologists, our trip to Namibia began with an element of serendipity and beer. We were in Houston, Texas, sitting in the kitchen of Peter and Kristi Keller (some of you may remember Kristi as “Stewart”) when this all started. Kristi and Peter are both geologists we have known for years and while chatting over an adult beverage the idea of a joint trip to Namibia came up. They had been stationed in Angola for a few years and said Namibia would be fun; they even had connections in Namibia. Naturally, we raised our glasses and said, “let’s do it.” Later that night I had a chance to pull up a map of Africa to figure out where we had committed to go; “uh oh” may have been my last thought before falling asleep. About 18 months later, on the night of May 26, 2019 we were in LAX boarding a British Airways 747 to begin our first of three consecutive BA flights that took us to Windhoek, the capital of Namibia – from there we would spend approximately 3 weeks touring the country. This article is intended to give a taste of Namibia as well as offer advice and observations not readily seen in a guidebook. During this time of pandemic and shared self-quarantine my goal is to entertain and remind everyone that the world will be there and welcome our future travels. All photographs shown are from my collection and this represents a small fraction of the set.

Namibia is a SAFE country

Namibia is now a peaceful, safe, and friendly country. In fact, some tourists complain that it is too safe and lacks adventure. Not sure how to address those who complain that Namibia is not “real” Africa because of its colonial imprint but, the scenery can be spectacular, the animals are legitimate, and the people are wonderful. The people of Namibia were uniformly kind to us. We heartily recommend it as a travel destination.

Namibia and the other southern African countries of the region have storied pasts that are beneficial for travelers to understand. Namibia lies on the southwest coast of Africa between Angola on the north, South Africa on the south and Botswana on its eastern border (see map). Namibia gained its independence from South Africa in 1990 at the end of the “South African Border War.”

Namibia’s war with South Africa lasted from August 1966 through March 1990 and included direct combatants from Angola, Cuba, Namibia, South Africa, and Zambia (<https://www.sahistory.org.za/place/namibia>). The short version of the war is that the United Nations gave the German Colony (Namibia) as a protectorate to neighboring South Africa following WWI. The plan was for them to hold the colony as a protectorate and grant them autonomy when the colony stabilized as a country. South Africa was agreeable to that plan but over time seemed to grow fond of the land, minerals, and harbor to the point that they annexed the land instead of launching it as a country. That sort of behavior was noticed, and a war resulted. The overall region of southern African has unfortunately experienced that war and other intermittent to long-term transnational and civil wars for almost 60 years. As would be expected, long-term regional violence has etched scars on the land, the animals, the people, and the psyches of all involved. We spent time speaking with a Namibian

Fast Facts Per CIA World Factbook

Population: 2.6 million (July 2020)

Area: slightly more than ½ the size of Alaska

Languages: English is official language with multiple others spoken

Terrain: mostly plateau except along coast – the mean elevation of the plateau is 1,141 m (3,744’). The Namib Desert is along the coast and the Kalahari Desert is in the east.

Climate: desert



woman who reminisced how much her world changed when her father “was killed in the civil war.” That was the sobering moment I realized how little we knew about the region beyond an anticipation of seeing elephants, giraffes, lions, and panoramic exposures of remnants of Gondwanaland.

Planning

The Kellers were stationed in Angola for several years before returning to Houston. They knew the best bet for planning a Namibian adventure was to use a local guide (“We know a guy...”) who lived in Windhoek (<https://naturetravelnamibia.com/>). They hired him to design a self-drive trip with reservations at a series of game lodges along the route. Good local guides or local companies with a good reputation know the territory – it’s that simple and paid off for us. We used the formal itinerary as a general guide and slipped some side trips into the mix as we drove along the countryside. In all cases we made it to every lodge before dusk. Namibia is a sparsely populated country; most vehicle access is on dirt or gravel roads. Make sure to bring guidebooks and two good road maps just in case you lose one. We also brought a Garmin GPS from home that was useful to estimate times to destinations but, we didn’t ever need to use GPS.

Do not rely on travel information older than about 18 months. It may be out of date because things can change a lot. If you are serious about visiting Namibia, buy new guidebooks, search out a local company to set you up and keep current with tourist blogs. There is a lot of money coming into Namibia from China for infrastructure investment and there also appears to be money available for tourist amenities. The Chinese investments are easy to spot because of the large signs in front of projects touting the international help and cooperation from China. Some people are critical of this approach and refer to the investment strategy as “debt trap” lending (<https://www.wsj.com/articles/as-africa-groans-under-debt-it-casts-wary-eye-at-china-11587115804>). None of this affected us directly but it was always interesting to drive by an ultra-modern appearing structure with bright signage in front announcing it as a joint venture between the Chinese and Namibian governments.

Finally, don’t anticipate finding good and inexpensive options. Prices are competitive but, “. . . it’s tough to visit on a budget. In Namibia you have two options: expensive or camping.” (Lauren Juliff, travel blogger; <https://www.neverendingfootsteps.com/namibia-travel-guide/>).

Getting There

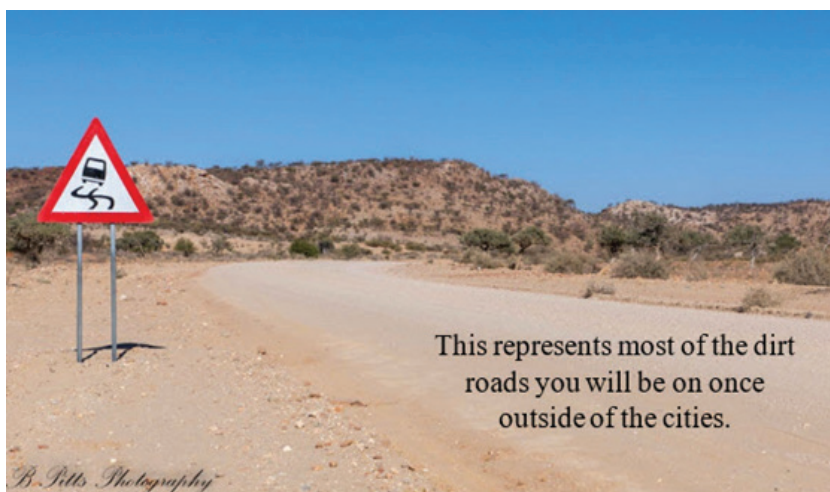
Namibia is a long way from Los Angeles. Our itinerary was British Air flights from Los Angeles to London to Johannesburg to Windhoek. Windhoek International Airport is modern, straight forward, and relatively small. A “Pro Tip” for the African airports is that the people you are dealing with tend to be literal in what they say and what they hear tourists say. Sometimes problems just happen but often travelers who have problems seem to be ones who figure “close enough” on how they complete the forms or approach the process of entering the country. For the person behind a counter receiving your customs/immigration forms that is their life and they want it their way; no more – no less. Complete the immigration/customs forms before you are tired and before you knock down a few drinks to “relax” on a flight. We gave them what they wanted and how they wanted, smiled, and breezed through going into Namibia and again when exiting Namibia – however, as in all airports arriving early for a departure is the best bet. As always, be pleasant. If you are exhausted, enlist the most-pleasant tired person in your group to do the talking. “Pro tip” – DO NOT pick the tired hot head in your group to interface with customs, immigration, or airline personnel. Bad idea.

Finally, we debated getting a “SIM” card for our cell phones when we arrived at the Windhoek airport. I purchased one and it turned out to be a waste of time and money. Their cellular-text messaging works fine and each game lodge has WIFI. Don’t waste your money on a local SIM card unless you expect calls from home.

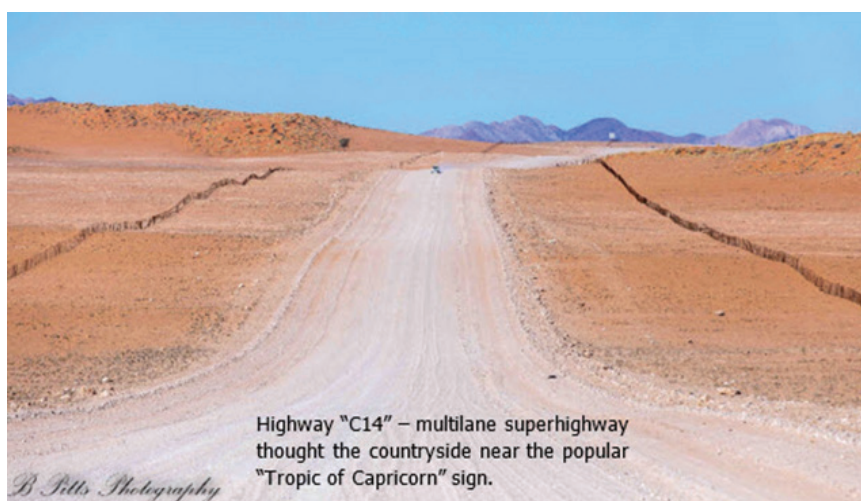
Driving and Navigating

Getting around Namibia is remarkably easy in a good rental vehicle – just don’t get in a hurry. Roads are usually well marked, and the signage is good. Roads in and around cities are paved but the rest are dirt and gravel. However, in more remote locations, the roads can be rutted and generally bad in stretches – ask the locals for recommendations before embarking on the next leg. Namibia caters to approximately 1.5 million tourists per year which is a huge number for a

country whose population is only 2.6 million. Namibians want you safe and happy, but visitors must be prepared for driving hours in the countryside without seeing habitation or another car. Distances aren't particularly far but driving on dirt and gravel roads is a lot slower than on a paved freeway. We planned "driving days" and once at a destination usually stayed 2 to 4 nights before moving on to the next destination. Over-ambitious tourists could literally spend most of their vacation time driving. Spend some time absorbing the beauty and solitude of Africa; odds are you will remember those moments more than hours of windshield time.



In Namibia, vehicles drive on the left side of the road and the vehicles are right-hand drive (just like the UK and South Africa – NOT a coincidence). As an extra bonus, our 4X4 had a manual transmission meaning shifting was done with the left hand. The longest driving day lasted about 6 hours which was a grind especially for the back bench-seat passengers, but most driving days were in the range of 3 to 4 hours of driving. Pro Tip: If renting a vehicle be certain about whether you would accept a manual transmission instead of an automatic transmission. We all survived without too much drama but it was somewhat sporty to go head to head with the occasional inattentive driver on an unmarked dirt road in the middle of the highlands – keeps everyone attentive.



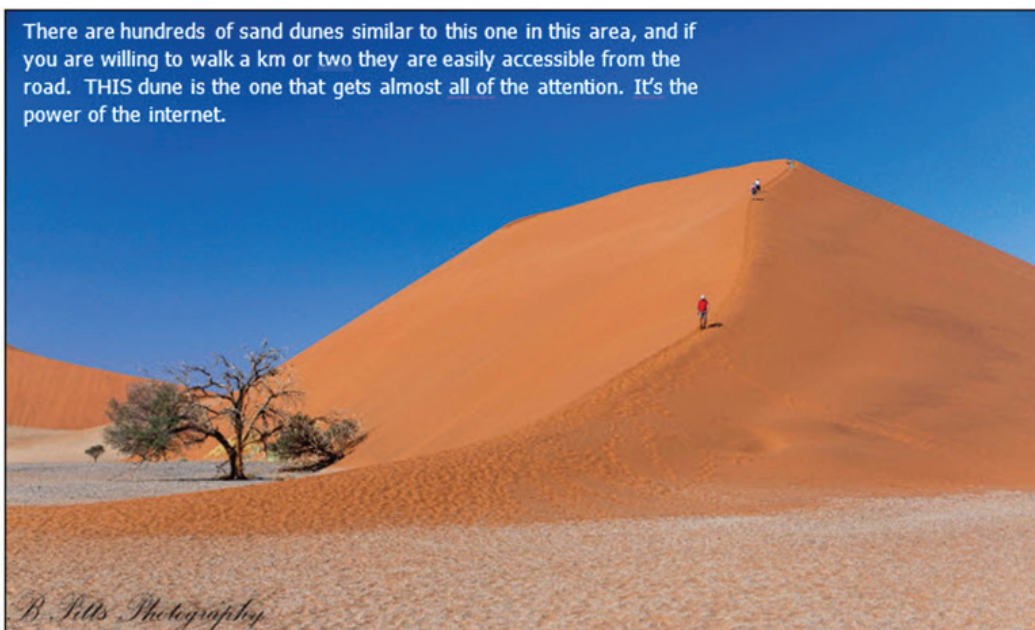
Keep spare change on you at all times because public restrooms generally have an attendant or minimal fee for use. Don't whine and just pay them an equivalent of ten to 50 cents (U.S. Dollars) to use their facilities. Be happy you or your spouse are not "going commando" in an area that has zero cover from horizon to horizon. We did take advantage of several relatively new Shell-branded mini marts at intersections dotted across the countryside. Still, in some you pay and others you do not so be prepared.

At all times, while driving in Namibia, remember, ANIMALS HAVE THE RIGHT OF WAY. We were skeptical about stories regarding the number of animals on or near the roads in Namibia until we encountered our first troop of baboons alongside the main road into the city from Windhoek's International airport. Locals do drive in the countryside at night, but it's not advised for tourists. Animals in the road are the biggest night issue and secondly, you are not going to cruise around and find a hotel or "nightlife" in the countryside.



The Land

The countryside is expansive, and except for the coast, uniformly high-desert in nature. Some portions are stunning in both color and landscape.



Our travel team. From left to right, Peter Keller, Kristi Keller, Brian Pitts, Kay Pitts. I am told, NO ONE else has a photo like this.

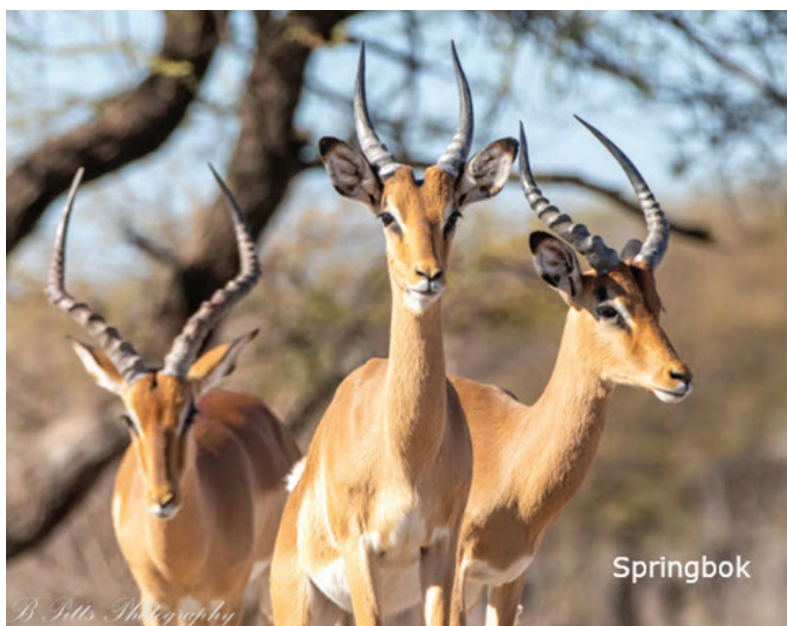


Some Small Animals

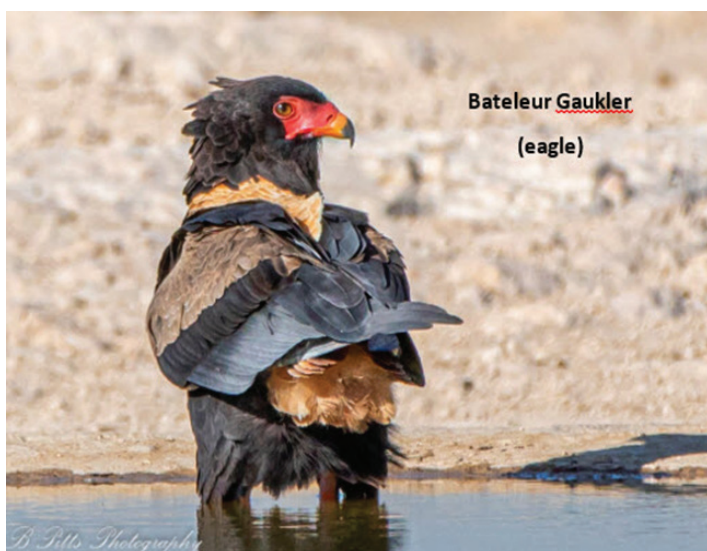




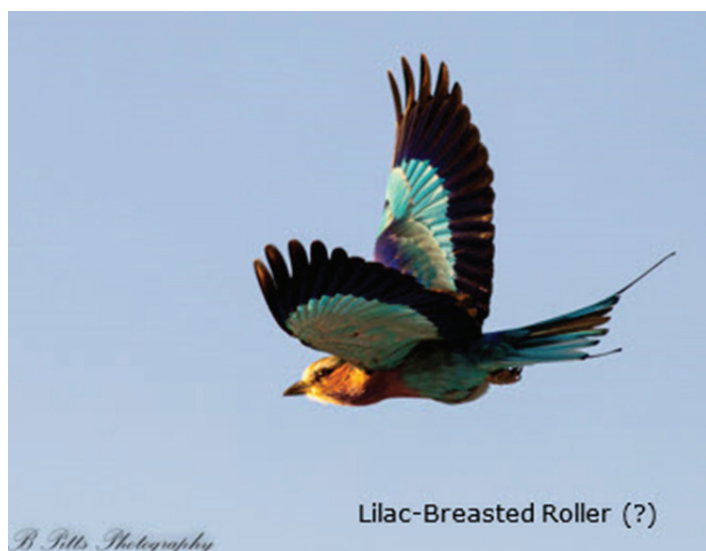
Springbok approaching a water hole. This photo was taken from an in-ground blind. We cheated and the Springbok are used to photographers.



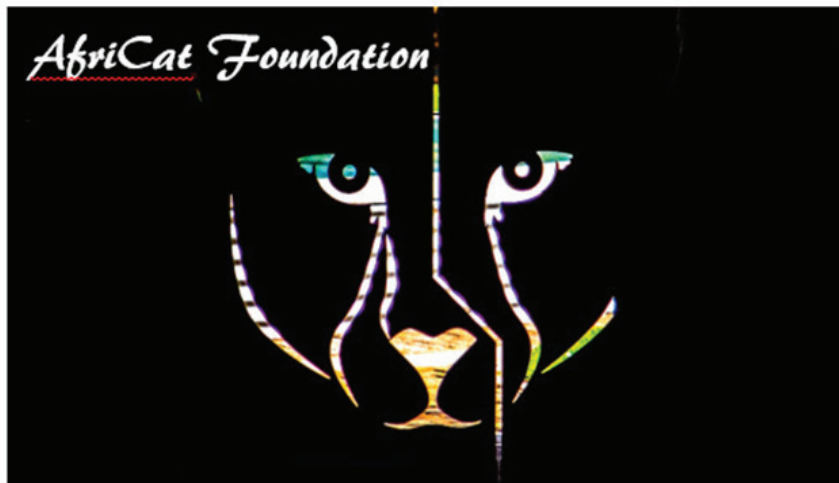
Springbok



Bateleur Gaukler
(eagle)



Lilac-Breasted Roller (?)



Spent all morning tracking this leopard. She's used to being "tracked" by tourists and was guarding a recent kill that she stashed about 20' up a tree.

Private Game Preserves and National Parks

Namibia has most of the animals you will find throughout Africa, but many of theirs are "desert-adapted" varieties. Most tourists who travel to Namibia go to see the big game and the Namibians are proud and protective of their environment and their game animals. Unfortunately, a global demand for endangered species or their parts (black-rhino horn as one example) has created long-term poaching problems throughout Africa.

Consequently, private game preserves and the national parks have become the keepers for most large animals and endangered species. Many if not most of the preserves and parks are also resorts welcoming eco-tourists and photographers; some offer "hunting" opportunities. Some resorts have themes and there is competition for game preserves to buy and hold at least some big-game animals. For example, if a preserve lacks rhinos, elephants, giraffes or, other splashy animals they are at a competitive disadvantage to the more capitalized preserves that can afford to buy and maintain (or breed) the large animals. Face it, tourists don't want to fly around the world to see a few deer, goats or vultures; they usually want the big African-game animals. Foreign investment adds pressure to the system because some game preserves are flush with money from international backers while a local mom/pop operation struggles to compete. Fences are the quickest tipoff to the level of capitalization for an individual game farm. Some farms have unimpressive glorified wire fences that animals can and do jump or walk through (elephants and rhinos don't jump). Other game preserves have impressive metal fencing, lights, motions sensors, cameras and gates that are the equivalent of most

penitentiaries. We spent time in one huge big-cat preserve/resort (AfriCat Foundation) that displayed MULTIPLE layers of fencing, motion sensors, cameras and security as we moved from the perimeter fencing and into the heart of the facility. That facility receives donations from around the world and they hold more species than they advertise because of poaching. Don't ask staff or guides probing questions about any "other endangered species and their locations" in the facility or the guides and staff will probably develop an intel file on your visit. Some preserve animals escape and join their free-range cohorts in the Namibian countryside. No one gets too excited but, you must be aware that a wandering rhino, elephant or giraffe could be around the corner.

Most destination places in Namibia visited by tourists are either national parks or private wild-game preserves. Some people opt to camp but considering the lack of fear most wild animals have of humans, it is not advisable to camp outside of designated camp sites. Even in the designated camping locations, you may have to contend with more wildlife than you may want.

Etosha National Park is internationally renowned and arguably, Namibia's crown jewel. It is huge in area and when you drive through the gates, you are literally inside the cage with free-roaming wild animals. Your sanctuary is inside the car and the wild animals are so habituated to vehicular traffic that they will normally ignore you. But, you are in tremendous danger if you get out of your car because some large animal could be having a bad day and looking for someone to take it out upon. Locals take it seriously and if guides see you out of your vehicle, they will swing their vehicles (usually buses or 4x4's full of tourists) around to chastise violators. Locals are protective of the park and its animals. They do not want bad publicity, restrictions on operations or loss of an animal that might have attacked an unthinking tourist. Africans are fairly practical and probably think a tourist dumb enough to get out of a vehicle to "bond" with or pet a wild animal should probably merit a "Darwin Award." Most of the authoritative people you see in Etosha National Park are maintenance personnel, numerous private guides, rare law enforcement vehicles and NEVER a ranger. "Ranger" has a far different connotation in Africa than it does in the US. In Africa they are paramilitary, heavily armed, and paid to deter, hunt, capture, or kill poachers; don't ask one for directions to the best restaurant. While in Etosha we encountered and spoke with a loanee from the Cincinnati Zoo. He said American zoos collaborate with the Namibians to help prevent poaching. "Where are the rangers?" I asked. He said, "most are currently along the northern boundary of Etosha (facing Angola) deterring poachers coming out of Angola. The rest are 'roving.'"

Our experience in the national park resorts and the private game-preserve resorts was consistently welcoming and enjoyable. Namibians work hard at hospitality and, in our experience, they generally enjoy working with Americans (Americans tend to tip and we tend to be polite which are not universal traits across tourist groups visiting Africa). Your interactions with Namibians will be enhanced if you are polite and show respect for the people and the animals.

The food is good, plentiful, and prepared mostly in European styles (lots of Germans visit Namibia). At one resort I walked by the kitchen during late afternoon while the chef was cooking for staff (remember, staff usually live at the resorts too) and noted that their food was far more aromatic than what we were receiving. It was very tempting to sit in with staff, but it might have created some awkwardness. All I can say is THAT night, staff was sitting down to some great-smelling local food – an opportunity lost. At all times in Namibia, expect the unexpected. Kay Pitts announced in the middle of nowhere that we should "look for a sign" on the road because we are near a place that looks good in the



Local hospitality can be SUPERB

guidebook. We found a sign pointing down a narrow dusty dirt road that took us to “Conny’s Coffee.” A laconic Rhodesian Ridgeback hound dog laying in the parking lot made it all seem right. They had a remarkable coffee display inside and the pastries were exceptionally good. The owner of the coffee shop was hospitable and his local information about a “shortcut” to our next destination was helpful.

Some lodges include limited selections of wild-game meat for dinner. One had an entire display of raw game meat from which to choose for the chef to prepare. I have never been an enthusiastic fan of game meat and generally find the experience underwhelming. But some places will have options that include zebra, gazelle, eland, kudu, etc.

One night at a game resort we were chatting with one of the supervising field guides. He was asking polite questions about our experience and one of us asked him, “where do YOU go on vacation?” He seemed pleasantly surprised at our inquiry and gave it some thought before answering. He is Belgian, emigrated to Botswana, and was working as a field guide in Namibia. He visits family and friends in the southern Africa area for most of his vacations. One of us asked if he had been to the states and his eyes lit up. “Oh yes” he said eventually adding that he “wants to return to Chicago with his son.” On his last trip to the USA he went into a “Ruth’s Chris” steakhouse and had “something you call ‘Ribeye.’” It was the best meat he’s ever tasted in his life and the Ruth’s Chris ribeye sounded like a transcendental experience for him. We all laughed with him about his experience in Chicago and agreed that “properly prepared ribeye is really good.”



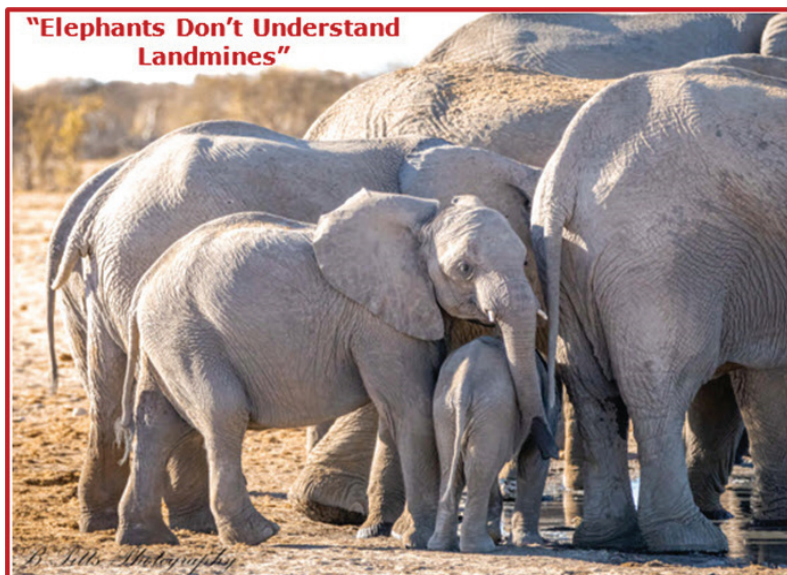
The Elephants

Elephants are probably the most desired animals on tourists’ bucket lists. Ingrid, one of the lodge owners told us a story of a trip her family took to nearby Botswana. They are experienced in basing out of a large camper van on their trips and one night they were parked in a designated campsite, sound asleep. The evening was dark and warm; the camper windows were open for cross ventilation. Ingrid awoke to indistinct shuffling and breathing sounds outside her window. She was in an upper bunk and while straining to see into the darkness, she heard something fart right outside of her window. That was when she knew a herd of elephants were shuffling through their campsite. Yes, they can be that stealthy. So, word to the wise, camping outside of designated campsites is not recommended and tent camping may be a bad idea (<https://www.cnn.com/2019/11/08/australia/australia/elephant-namibia-intl-hnk-scli/index.html>).



While we were visiting Namibia (2019), neighboring Botswana announced they were lifting their ban on elephant hunting (<https://www.smithsonianmag.com/smart-news/five-things-know-about-botswanas-decision-lift-ban-hunting-elephants-180972281/>). Botswana was being condemned in the media by international environmental and conservation groups. Our host in Windhoek commented that people in Europe and the US in particular have unrealistically romanticized versions of what Africa has been and is currently like for elephants. “It’s not that simple here,” she began. “Foreigners still hold a belief that elephants wander through Africa and migrate from place to place at will. Yes, elephants used to migrate and they are strong traditionalists about places and routes, but that is no longer true or even possible.” “For example,” she continued, “all of Angola’s native elephants had been killed in wars or poached. ALL of Angola’s current elephants are imports from game preserves in surrounding countries. Game preserves can afford to care for only

a certain number of elephants before they starve, and the preserves need to move some out. Africa can no longer allow elephants to wander on their own because, they don't know where to go, they don't know what to do and, 'elephants don't understand landmines'" (<http://news.bbc.co.uk/2/hi/africa/909690.stm>).



BONUS MATERIAL!



Bonus Lessons from watching elephant herds: Baby and adolescent elephants like to nap – a LOT. And, they snore – loudly. The babies have temper tantrums, throw themselves to the ground when frustrated/hungry, wriggle, whine and scream. Mother elephants watch patiently for a while and then walk away. The incident we witnessed culminated when the baby elephant looked around, saw mom was gone and gave chase with trunk flailing high in the air. If baby elephants are in real distress the herd will converge (according to our elephant guide). Baby elephants can be a hot mess to raise.



FINAL THOUGHTS

Africa is a large and complex continent. Namibia is just part of its historical narrative and I hope this gave the reader a small taste of what awaits travelers. We definitely would go again, and we would probably include eastern Namibia (Kalahari region) and venture into Botswana on a future trip. This essay touched on just a few topics and never mentioned additional topics such as, culture, ecology, “rock art,” astrophotography, geology (Gondwanaland), or geomorphology. If you’d like more information or a higher-resolution photo of what is shown here, send me an email (bpitts@bak.rr.com). After the pandemic protocols are over, we might even be able to get together for more details. Just have some adult beverages on hand.

In all cases, stay well, plan for adventures, and do it!

Finally, please help give elephants a break and remember:



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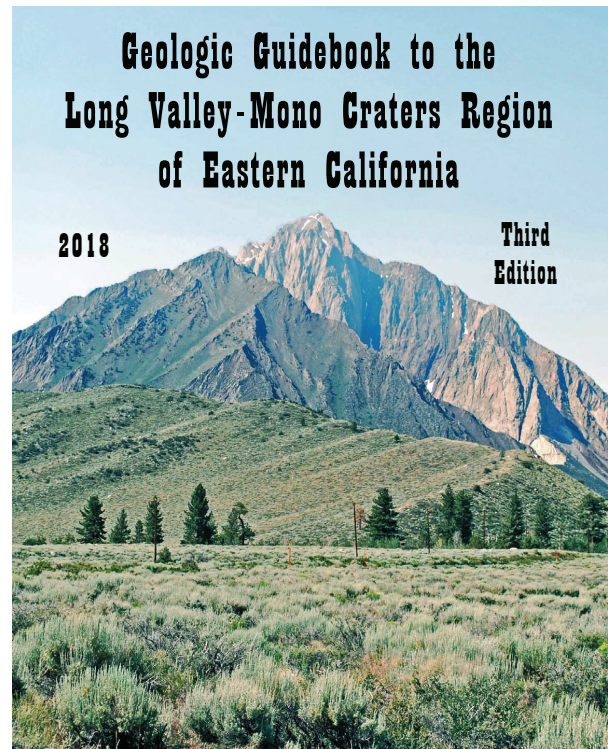
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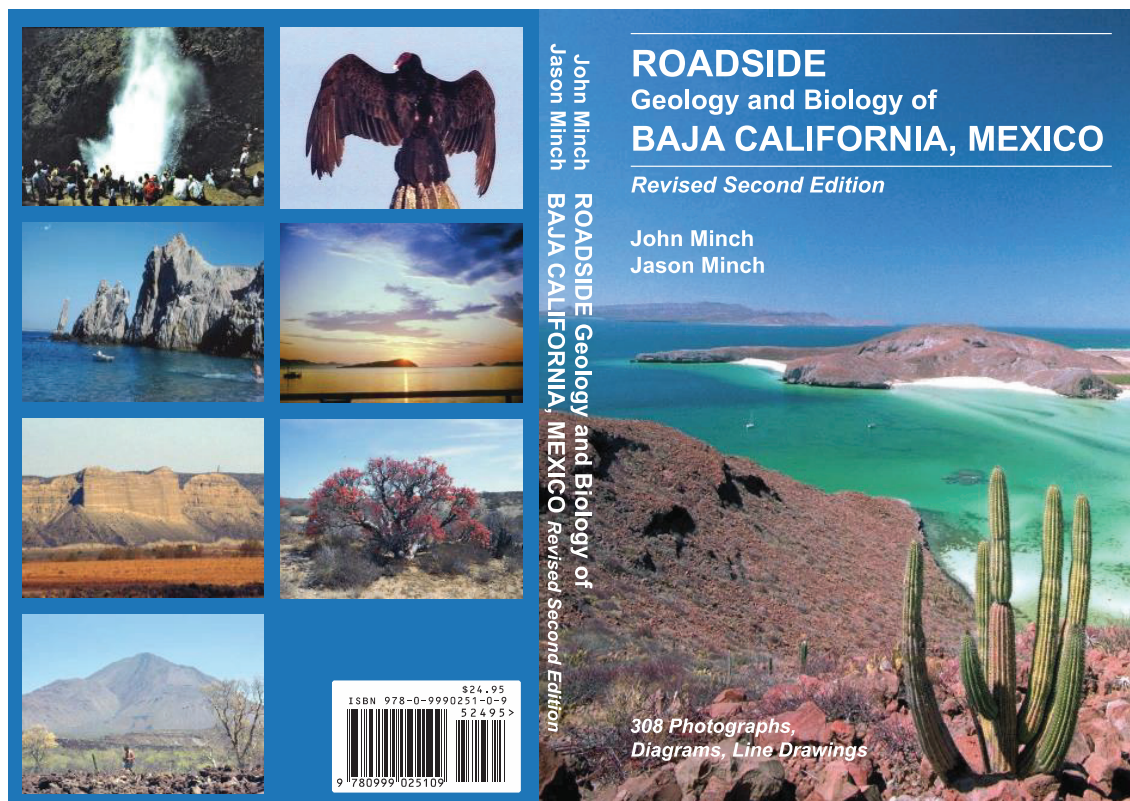
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Member Society News

Alaska Geological Society

May 29, 2020

Speaker: Laura Gregersen, Alaska DOG,

Topic: The history and aerial distribution of exploration drilling targets categorized by play type, North Slope and offshore arctic Alaska

Coast Geological Society

May 19, 2020

The May meeting is cancelled due to COVID-19.

L.A. Basin Geological Society

Visit www.labgs.org for information on upcoming meetings.

Northern California Geological Society

Wednesday May 27, 6 pm Dinner Meeting

Speaker: Raymond Jeanloz, UC Berkeley

Topic: Experimental mantle geochemistry and preliminary findings of the Deep Carbon Observatory

Wednesday June 24, 7 pm

Speaker: Jared Gooley, Stanford University (Ph.D. candidate)

Topic: Tectonic evolution of the central California margin as reflected by detrital zircon composition in Mt. Diablo region

Northwest Energy Association

The meeting venue is closed and there will be no speakers until September.

Sacramento

May 20, 2020

Speaker: Dr. Jeff Unruh

Topic: "Deformation of the Ancestral Forearc During Late Cretaceous-Early Tertiary Blueschist Exhumation, Mt. Diablo Region"

San Joaquin Geological Society

Tuesday, May 12

The May meeting is cancelled due to COVID-19.

Alaska Geological Society

www.alaskageology.org

P. O. Box 101288
Anchorage, AK 99510Contact: Keith Torrance
ktorrance@gci.net

Geology meetings/talks are held monthly September through May, usually on the third Thursday of the month, at the BP Energy Center (1014 Energy Court) from 11:30 am to 1:00 pm. Open To The Public. No Charge to Attend.

President:	Steve Carhart	steve.carhart@alaskageology.org
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Past-President:	Art Banet	banetak@gci.net

Coast Geological Society

www.coastgeologicalsociety.org

P. O. Box 3055
Ventura, CA 93006Contact: Eric White
805-628-2312

Dinner meetings are held monthly September through May, on the third Tuesday of the month, at Poinsettia Pavilion, 3451 Foothill Road in Ventura. Social hour starts at 6:00 p.m., dinner is served at 7:00 p.m., and the talk starts at 8:00 p.m. The cost of dinner with reservations is \$20 (members), \$25 (non-members), or \$10 (students and K-12 teachers). For reservations, please email Shelby Fredrickson (secretary@coastgeologicalsociety.org), and should be made by 4:00 p.m. on the Friday before the meeting.

President:	Eric White	president@coastgeologicalsociety.org
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Webmaster/Tech Support:	John Rice	webmaster@coastgeologicalsociety.org
Logistics:	David Arellano	darellano@carbonenergycorp.com

Los Angeles Basin Geological Society

www.labgs.org

Contact: Bert Vogler
949-585-3103

Luncheon meetings are held monthly September and October; and January through June, usually on the fourth Thursday of the month, at The Grand at Willow Street Conference Centre (4101 E. Willow Street) in Long Beach. Lunch is served at 11:30 a.m., and the talk starts at 12:15 p.m. The cost is \$30 (with reservations), \$40 (without reservations), \$20 for retired members, and \$5 for students. "Reservations can be made online at www.labgs.org or by contacting Wanjiru Njuguna at wanjiru.njuguna@gmail.com. Reservations are best made prior to Tuesday before the meeting.

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Webmaster	Wanjiru Njuguna	wanjiru.njuguna@gmail.com
Past-President:	Bert Vogler	hvogler@kleinfelder.com

Northern California Geological Society

www.ncgeolsoc.org

803 Orion #2
Hercules, CA 94547-1938Contact: Barbara Matz
barbara.matz@aptim.com

Evening meetings are held monthly September through May, usually on the last Wednesday of the month, at the Masonic Center (9 Altarinda Road) in Orinda. Social hour starts at 6:30 p.m., and the talk starts at 7:00 p.m. (no dinner). For reservations, contact Dan Day at danday94@pacbell.net before the meeting. Cost is \$5 per regular member; \$1 per student member; and \$1 per K-12 teachers.

(Continued on next page)

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Northwest Energy Association
www.nwenergy.us

P. O. Box 6679
Portland, OR 97228

Contact:
Jim Jackson or John Armentrout



Luncheon meetings are held monthly September through May, on the third Thursday of the month, at the Multnomah Athletic Club (1849 SW. Salmon Street) in Portland, Oregon. Meeting time is at 11:45 AM to 1:00 PM (speaker about 12:15 PM). The cost is \$25 for members and \$30 for non-members. For information or reservations email NWEnergyAssociation@gmail.com, or our Postal Box: Northwest Energy Association, P.O. Box 6679, Portland, Oregon 97228-6679.

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Sacramento Petroleum Association

P. O. Box 1844
Folsom, CA 95630

Contact: Pam Ceccarelli
916-439-0400



Luncheon meetings held monthly January through November, on the third Wednesday of the month. Location: Club Pheasant Restaurant in West Sacramento. The meetings start at noon. The cost is \$16 - \$20. For information or reservations, contact Pam Ceccarelli.

President:	Jerry Reedy	JWR5532@aol.com
Vice-President:	Scott Hector	Scott.Hector@gmail.com
Secretary	Derek Jones	djones@gasbiz.com
Editor/Treasurer	Pam Ceccarelli	pc626@comcast.net

San Joaquin Geological Society
www.sanjoaquingeologicalsociety.org

P. O. Box 1056
Bakersfield, CA 93302

Contact: Jennifer Prosser
jprosser@envirotechteam.com



We have dinner meetings on the second Tuesday of the month, October through June, at the American Legion Hall (Post 26) at 2020 H Street, Bakersfield, CA 93301. There is an icebreaker at 6:00 p.m., dinner at 7:00 p.m., and a talk at 8:00 p.m. Dinner is \$30 for members with reservations, \$35 for nonmembers and members without reservations and \$15 for Students.

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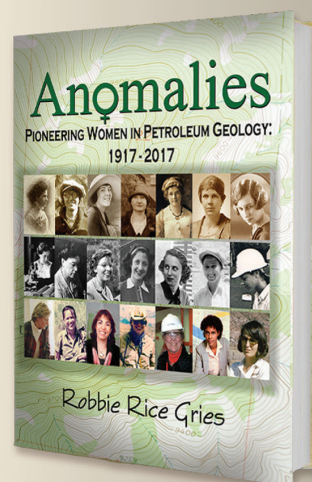
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– Allyson Anderson Book,
Executive Director - American Geosciences Institute

Once released, the book can be ordered from the AAPG Store for \$50 plus shipping and handling. Please e-mail publications@AAPG.org expressing your interest and we will contact you as soon as the book is available. Don't want to wait? Visit the AAPG Center at the 2017 ACE meeting to purchase your copy.



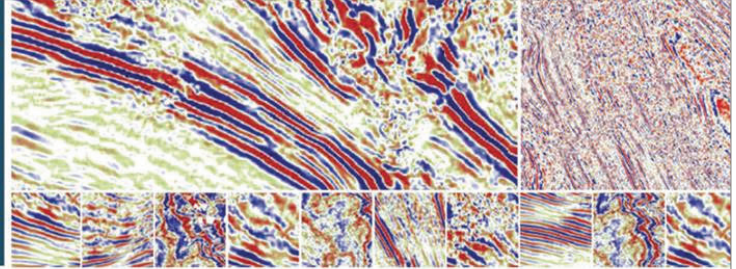


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