



The Explorers Club Northern California Chapter JANUARY 2023

Also available at our web site: <http://www.explorersnorca.org>

**MONTHLY MEETING
FRIDAY 27 JANUARY 6:30 PM
BY ZOOM INVITATION**

SEEKING COEXISTENCE: EXPLORING HUMAN-ELEPHANT CONFLICT IN INDIA

Kim Frank, FN'18

Kim's presentation will begin with an eleven-minute film.



In India's eastern Himalaya, where humans and Asian elephants inhabit the same shrinking forests and foothills, a story of struggle unfolds. Working alongside local advocates and communities, a multimedia storyteller brings the tale to a global audience — through magazine articles, and now a book and documentary film in production.

In "Seeking Coexistence," explorer Kim Frank shares her experiences from six years of study, exploration, and reporting on human-elephant conflict in northeastern India. From living with a former princess turned India's only female mahout to experiencing the all-night front-line battle between farmers and elephants over food to leading an Explorers Club flag expedition to identify unique solutions toward coexistence, Kim will be sharing stories from the field during the height of the conflict season.

Her main objective has been to increase awareness in Western audiences — highlighting a regional issue on a global stage. But it is the individuals and animals on the ground whose voices she hopes to capture, and who will ultimately lead the way from conflict to coexistence.

Kim Frank is an Explorers Club Fellow, whose work has been published in *Earth Island Journal*, *Oceanographic Magazine*, *The Explorers Journal*, *Maptia*, *American Literary Review*, *Sidetracked Magazine*, *DuPont Regis-try*, *FRANK*, and in *SVPN* magazine where she served as Editor from 2014-2017. Her books include *Born to Ice* with National Geographic photographer Paul Nicklen, and *Amaze* with Sea Legacy founder Cristina Mittermeier.

A 2014 Idaho Literature Fellow with an MFA from the Warren Wilson Program for Writers and an MSW from the University of Pennsylvania, Kim was a 2013 Ucross Artist Residency Fellow. She is currently working on both a book and documentary film about human-Asian elephant conflict in the Eastern Himalaya, and in July of 2022 was awarded an Explorers Club Flag for leading the Asian Elephant from Conflict to Coexistence project.

Learn more about Kim at <https://kimfrankwriter.com> or follow her stories on Instagram <https://www.instagram.com/kimfrank-writer/>

INTERSTELLAR TRAVEL
Will Humans Ever Make It To Other Stars
Major Ryan Weed PhD, 18 November 2022

Distances in space can be hard to comprehend. The fact that we measure these distances in light-years (the distance that light can travel in a year traveling 186,000 miles per second) demonstrates the vastness of the interstellar medium. The current state of propulsion is good enough for interplanetary travel within our solar system. Current rockets can traverse the 70 million miles to Mars in about 6 months but take years to reach Jupiter at 488 million miles distant. Using NASA's fastest rockets, it would take more than 10,000 years to travel to our closest star system, only 4 light years away (Alpha Centauri). In addition to his day job as a US Air Force test pilot, Dr. Weed has been working hard with his colleagues to figure out how can we shorten this travel time down to a decade or two.

The answer may lie in harnessing antimatter - the most energy dense material in the universe. Just one grain of sand composed of antimatter contains the equivalent energy of a nuclear bomb. Everything about antimatter is difficult - it's incredibly hard to create, almost impossible to cool down to temperatures less than the surface of the sun, and trapping more than a millionth of a milligram has eluded scientists.

Dr. Weed examined the feasibility of human travel to our nearest stellar neighbors, discussed what technologies we need to get us there, and some of the unexpected consequences to exploring the galaxy at extremely fast speeds when you consider relativistic travel. As a start to creating an antimatter propulsion system, Dr. Weed has designed and built a positron beamline facility to develop and test high specific impulse propulsion concepts. Dr. Weed's talk was incredibly interesting and provided an introduction to many of the challenges of and potential for interstellar travel.

Tom Dietz FN'20

CHAPTER CELEBRATION PARTY
THE 50TH ANNIVERSARY OF THE NORTHERN CALIFORNIA CHAPTER
THE EXPLORERS CLUB

SAVE THE DATE: Saturday, February 25th, 2023, late afternoon
WHERE: Deep Ocean Engineering and Research, Alameda
PRESENTATION: Explorers as Humanitarians
WHAT: Nibbles, sips, conversation, & celebration of our chapter and a short program
More information to follow soon

CHAPTER FIELD TRIP
Robert Ferguson Observatory - Sugarloaf Ridge State Park

Mark your calendars and RSVP. We have rescheduled the Chapter field trip to RFO for September 15th. A time of year that has one of the highest probabilities for good weather. Within one day of a new moon, viewing should be excellent. There will be reminders and important details in future Newsletters as well but Tom Dietz will be accepting indications of interest now. We'll look to open the payment system in the later Spring. Please email Tom at tjdietz415@gmail.com indicating your interest in attending the event and if you would like to camp that night.

CHAPTER DUES

Northern California Chapter dues are based on the calendar year (Jan-Dec). As a result, your dues are now payable for 2023. Member's dues are \$25. Sirdar's dues are \$50. If a Sirdar is the partner of a member, then the partner Sirdar dues are \$25.

Dues can be paid on-line at our website www.explorersnorca.org. There is a \$2.00 fee for paying on-line. If you would prefer to pay by check, please make the check payable to Northern California Chapter of the Explorers Club and mail the check to Anna Freitas at 161 Camino Posada, Walnut Creek, CA 94595.

Several people have already paid their 2023 dues. Thank you for being proactive!

Anna Freitas MN'17, Treasurer

CHAPTER FIELD TRIP TO POSITRON PROPULSION LABRATORY
University of California, Berkeley, 17 December 2022



**The Explorers Club
 Northern California Chapter**

**Chapter Field Trip
 University of California, Berkeley
 Positron Propulsion Laboratory
 17 December 2022**



On November 18th Major Ryan Weed, Ph.D., FN'19, gave an enthralling presentation on Interstellar Travel. His talk included his design and build of a positron beamline facility to develop high specific impulse propulsion concepts. On December 17th, Ryan hosted 10 members/guests of our Chapter in his laboratory at the UC Berkeley. We subsequently gathered for a group breakfast, continued Q&A with Ryan, hearing about everyone's backgrounds, and contemplating future field trips.



Gathering at Etcheverry Hall, Ryan and his colleague, Dr. Shai Cohen, led us into the building's bowels that used to house the Berkeley Research (nuclear) Reactor. The reactor achieved criticality in 1966 and was operated until its decommissioning in 1987. The facility is still used for nuclear material and houses several large experiments for the Dept of Nuclear Engineering. There are many reminders of its once "bright" past with shielded safety doors and a radiation decontamination shower. Some in our group operated Geiger counters showing us how safe we were.

In the cavernous basement we saw grand pieces of experimental physics equipment that had a very 1950s era tech feel to them. In fact, with the cost of digitally controlled apparatus in the millions, the labs operate mainly in analog mode. Ryan detailed several of the larger equipment, including an old fission reactor that has been converted to a hydrogen beam target fusion reactor, and a not-in-use pelletron accelerator, an electrostatic generator similar to a Van de Graaff generator. Best line of the day "that's not a time machine...yet".



Ryan talked us through his positron beamline equipment used for material diagnostics and propulsion studies. Using a frozen layer of noble gas Krypton, cooled by liquid nitrogen, Ryan and his colleagues are able to capture cold positrons. Albeit inefficiently at only 1%. They can then guide the positron to a sample. For study, they use the positrons to detect defects in materials. When the positron is annihilated by interaction with an electron, the emitted gamma ray carries some information about the defect chemical environment. The apparatus has as much atmosphere pumped out as possible to allow the positrons to exist as long as possible – on the order of 100 nanoseconds. This beamline set up is a precursor to Ryan and his team's ultimate goal of deep space probe propulsion. The sample materials being used for defect detection will eventually be replaced with fusion fuel, catalyzed by the annihilation of antimatter.



Tom Dietz FN'20

EXPLORER LETTERS FROM THE FIELD

A JOURNEY THROUGH INDIA TEACHING SELF-DEFENCE

INDIA: October 2022, I arrived in Mumbai at 2:00 am on an October day in 2022. I was arriving to teach a month-long series of seminars of Aikido and Brazilian Jiu-Jitsu-based self-defense classes to women. I have been traveling to Asia for over 30 years teaching and training martial arts. I have visited Tokyo, Mumbai, Varanasi, Kathmandu, Yangon, Haridwar, as well various other cities in Asia. This year my first of four seminars was in Varanasi, the holiest city in India, located on the banks of the river Ganges.

I arrived in Varanasi with my entire Mumbai crew which consisted of ten black belts whom make up the security detail of the American School of Bombay. This unit is led by Mr. DB Rai Sensei, my dear friend, sponsor and organizer of these training events in India. My first seminar was held at the Mahatma Gandhi Kashi Vidyapeeth University. This was a three-day event consisting of Self-defense classes, a talk by a female police women officer, head of sex crimes division for the Police department, lawyers, doctors, health care specialists, state and national politicians as well as an education minister.



I had the honor to be the primary self-defense instructor. The workshop was for young women between 16 and 22 years of age. This was a highly structured curriculum created by DB Rai, myself and the University. As background, the Indian government is involved with the promotion and support of women's empowerment and hands on self-defense training. I am impressed by the State government of the Uttar Pradesh, as well the Indian government with their commitment to the empowerment of women. Together with my American School of Bombay students we were welcomed and supported by the Indian government to embark upon this ambitious endeavor of teaching women's self-defense and hand to hand combat skills.

I began teaching my first class on a hot morning. Our Dojo or 'training hall', was a dusty cricket field surrounded by tall, orange cloth barriers which kept the classes private for the women. As I entered the training area the women clapped in unison. I introduced myself and gave a short talk before beginning our session.



I told the women my name, where I was from and what an honor it was to be able to teach them self-defense. I told them my view of women's self-defense which is as follows: "A girl over the age of 10 has more knowledge of self-defense and self-preservation than I could ever comprehend or even come close to understanding. As young girls who have survived to become young women, they are more equipped to teach any man or boy how to survive and stay safe in a violent male dominated world, where women are too often subject to abuse from a young age. I also believe women's intuitive skills are superior to that of most men. I told my audience not to second guess their intuition. I added that what I could teach



them would be basic physical survival and fighting skills. Understanding when a person is in danger and what that individual feels she should do is up to that person based upon what they feel can keep them safe."

I then spent the next three days teaching basic self-defense techniques. Those basic techniques consisted of wrist grab escapes, wrist locks, basic arm bars, and simple throws and punches, called atemi in Japanese. Between classes in the cricket pitch, we recessed to an auditorium to hear talks by vari-

ous professionals such as policewomen, law enforcement professionals, doctors, lawyers, educators and many politicians. The speakers all focused on the rights and resources available to women in India. Personally, I was deeply touched by the honest and full commitment of everyone involved. The senior female police officer gave her personal cell number to 200 young women informing them to call her anytime day or night if they needed her assistance. I was overcome by strong emotion witnessing all of this and being a part of this movement in India. At one point during the lectures, we were joined, via a large video screen, by the Governor of the Indian State of Uttar Pradesh, Her Excellency Anandiben Mafatbhai Patel. Governor Patel delivered a thirty-minute speech thanking us and encouraging the young women to learn self-defense. The Uttar Pradesh State is the most populous state in India with over 250 million inhabitants.

In the 43 years of teaching and training in all aspects of the martial arts, never have I been so inspired as when I am teaching in India. This was particularly true this year teaching the women's self-defense seminars. I feel so grateful to have a skill to pass on with the hope that something I teach could help those Indian women not only be able to protect themselves, but also to serve as examples in India of the idea of physical and mental empowerment of women.

Jimmy Friedman MN' 19

HONOR ROLL
Paid up Dues for 202

It's a new year for dues. Please pay your 2023 dues now. Anna Freitas, Treasurer.

A FEW WORDS FROM THE CHAIR



Happy New Year and happy 50th anniversary year. I hope everyone is healthy and keeping dry. The rain is much needed. I know that the atmospheric rivers are causing some trouble but hope it has not affected you significantly.

Many of us enjoyed a wonderful, in-person holiday gathering at Aldeana and Rick Saber's house. I met some new members and several guests who might become future members. I also had some great conversations with 'old' friends and as I walked around, heard many people engaged in lively discussions. Good food and libations helped nourish the good energy that was so obvious. Many thanks to the Sabers for opening their home, gratis, for this event.

Also in December, a smaller group enjoyed a field trip to the research reactor on the UC Berkeley campus. Tom Dietz reviewed this visit is included in this newsletter.

Our zoom talk this month is by Kim Frank, FN'18, about her observations on human-elephant conflicts and opportunities for co-existence. It should be a fascinating start to the second half of the 2022-23 program season. After the January zoom talk we are planning some in-person events. February will be an in-person meeting and anniversary celebration. March and April meetings are still being developed but these months will be busy. We're trying to schedule a spring field trip (Ferguson will be postponed till September due to scheduling concerns) and we're hoping to arrange some NorCA tables at ECAD (let Jimmy Friedman know if you have tickets and want to join the group table).

May will be our annual meeting. The May meeting is more than 4 months away, but it's not too soon for you to think about greater involvement with the Chapter. We'll hold elections for a new chair, new vice-chair, and some new elected directors. If you are interested in any of these positions, now is the time to start asking questions about the duties associated with those positions and thinking about your interests.

Returning for a minute to field trips, if you have ideas for locations for field trips sites and know a docent, can offer 'behind the scenes' access, or can provide something that would make the trip beyond the routine, please send suggestions to me or to Tom Dietz, Field Trip Director. Suggestions for locations are great, but what we really need are ideas for making the field trip something beyond the publicly accessible option.

Finally, please look at our revamped website. Mike Diggles, FN'92 started our website soon after he became a member of the Club and brought us into the early world of social media. He's been a constant with the Chapter for decades and was the first recipient of the Chapter's Charles L. Elkus Founders Award. He's handed the website to Len Bruffett, MN'21 and Len has risen to the task with a new web look. We'll soon be using this for meeting reservations, so take some time to get familiar with it.

Take care, explore safely, (stay dry) and bring back good stories,

Lesley Ewing, FN'93

On behalf of the Board of Directors and Officers

ECAD April, 22 2023
"The Explorers Club Annual Dinner"
Reserving a chapter table

If you have purchased tickets and want to sit at a NorCA chapter table,
please let
Jimmy Friedman (sfaikido@gmail.com) know ASAP.

January 2023 Issue
Northern California Chapter
Established 1973



CHAPTER OFFICERS & TEAM

Chair: Lesley Ewing FN'93
 Vice Chair: Jimmy Friedman MN'19
 Secretary: Joyce Chang MN'17
 Treasurer: Anna Freitas MN'17
 Treasurer@explorersnorca.org
 Webmaster: Leonard Bruffett MN'21
 Field Trips: Tom Dietz FN'20
 Newsletter Editor: Anders Jepsen FN'03
 ajviking@aol.com

2023

(face to face if possible)

January 27Kim Frank
 Human-elephant conflict in India . . . Zoom
 February 2450th Anniversary meeting
 March 31 Speaker
 April 22 ECAD (NY)
 April 28Speaker meeting (post-ECAD)
 May 19 Speaker
 June Summer Picnic or Celebration

2021

January 22 Diana Pickworth & John Wilken
 Explorations (2) Zoom
 February 26 Kent Lightfoot
 Fires & indigenous land use practices . . . Zoom
 March 26 Deana Weibel
 Motivations for robotic space exploration . Zoom
 April 23 Brandi DiCarli & Scott Thompson
 Farms from a box Zoom
 May 21 ANNUAL MEETING
 May 21 Alison Fundis
 Deep Sea Exploration. Zoom
 September 24. Ashley Lemke
 Archaeology Below the Surface Zoom
 October 15 Dr. Craig Clements
 Wildfire in the West Zoom
 November 19 Dr Roberto Junco
 Caribbean Archaeology Zoom

2022

January 28 Scott Warnasch.
 Iron coffins
 February 25 Satya Gontcho a Gontcho
 Astro physics and Cosmology
 March 25 Randall Reeves
 Sailing round the Americas and Antarctica
 April 22 ECAD
 April 29 Bryan Heisinger
 The Hester Lake B-24 Wreck
 May 20 Annual Meeting
 Urban Mobility and UAVs Aaron Singer
 June 12 Chapter Picnic
 September.23. Sonia Meyer
 Speleology & Expedition Caving Zoom
 October 28 Ed Bernbaum
 Sacred Mountains of the world Zoom
 November 18 Ryan Weed
 Interstellar Human Exploration Zoom
 December 11 Holiday Party

CHAPTER DIRECTORS
 (Past Chairs and Elected Directors)

Joan Boothe MN'07	Bob Schmieder FE'86	Paul Freitas MD MN'10
Lesley Ewing FN'93	Rick Saber MN'01	Kimberly Chambers MN'16
Lee Langan FN'99	Stephen Smith FN'96	Bill Phillips MN'21
Anders Jepsen FN'03		Satya Gontcho A Gontcho MI'21
Alan Nichols FN'84		Tom Dietz FN'20

Chapter Email Addresses

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MEETING VIDEOS

“Our Chapter has been recording our zoom meetings and the previous in-person meetings. Please go to our Chapter website explorersnorca.org and click on “Videos of Past Presentations”. Presentation videos on the website go back to 3/22/2019.”

SPEAKER SERIES OPPORTUNITY

Apply to present to the third annual Next Generation Explorers Network (NGEN) at the Explorers Club Annual Dinner (ECAD) Speaker Series!

This event will celebrate and share the work of emerging Explorers Club members. At the Speaker Series, the selected speakers will present their work to an audience of other members during the Explorers Club Annual Dinner (ECAD) weekend. The free event will take place on Saturday, April 22nd, 2023 in the morning, at the Clubhouse (46 E 70th Street, New York, NY). The application cycle will close on January 16, 2023 at 5:00pm ET. The speaker applications will be evaluated based on a blind rubric. The selected speakers will be notified by February 16, 2023.

This event is being organized by:

Brianna Rowe '11, Lizzie Rosenberger '17, Adam Gordon '15

NORTHERN CALIFORNIA CHAPTER DUES

The Northern California Chapter dues are paid for the calendar year. A new chapter club year started on January 1st. Member dues are \$25 annually; sirdar dues are \$50 annually.

The Honor Roll is a listing of individuals who have paid their dues. To verify whether you have paid your dues, just check the Honor Roll list on the prior page.

Dues can be paid on-line by clicking on the paypal link on the website. If you prefer to pay by check, please make the check payable to Northern California Chapter of the Explorers Club. Mail the check to Anna Freitas, 161 Camino Posada, Walnut Creek, CA 94595.

Please note that Northern California Chapter dues can be tax-deductible.

Anna Freitas MN'17, Treasurer