THE EXPLORERS JOURNAL

EST. 1921

into the heart of Africa
SUMMER 2008

HERBERT LANG & JAMES P. CHAPIN
into the Congo

SIR CHRISTOPHER ONDAATJE
Ernest Hemingway and the Patterson Affair

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travels in western Libya

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into the heart of Africa

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On April 2, I attended a memorial service for our late Honorary Chairman, Sir Edmund P. Hillary, hosted by HM Queen Elizabeth II at Windsor Castle. As a Knight of the Garter, the oldest British Order of Chivalry, Sir Edmund had his own banner of arms on display inside St. George’s Chapel. According to tradition, the banner was taken down in a “laying up” ceremony as part of the thanksgiving service. The banner was returned to the Hillary family during a private audience with the Queen afterwards.

On the castle lawn after the ceremony, I spoke with Helen Clark, the Prime Minister of New Zealand, who summed up our conversation in a few words. “His was a life well lived,” she said. Later that day, Lady June Hillary told me how important The Explorers Club had always been to Sir Edmund and I thanked her for all he did for our Club throughout his exemplary life.

Many Explorers Club members have suggested we honor Sir Edmund with an award in his name as part of our ongoing awards program. Sir Edmund’s son, Peter Hillary, and I have been working out the details of a medal that would have the approval and support of the Hillary family. The following is our description of the award:

HILLARY MEDAL: Explorers Club members often come into contact with people in circumstances less fortunate than their own. We have seen exceptionally generous members assist people by bringing the benefits of modern society to those less fortunate. Such members sometimes become inspired enough to establish an ongoing relationship with people in such circumstances and would thereby become eligible for the Explorers Club Sir Edmund Hillary Humanitarian Award. This medal should only be given from time to time, and in exceptional cases, to members who have taken these actions on a continual basis following in the spirit of selflessness, humility, and generosity of Sir Edmund. A monetary award should also be provided that would be sent in the name of the award recipient to the Himalayan Trust, the charity set up by Sir Edmund to which he dedicated his efforts for most of his life.

My experience during this trip to London has left a deep and lasting impression on me. Thank you all for giving me the opportunity to represent our organization as your president. We should all make a continual effort to be more like Ed. As I have said before, “He will never be replaced.”

Daniel A. Bennett

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SUMMER 2008

president’s letter

HONORING SIR EDMUND P. HILLARY
Thursday, October 16, 2008
Cipriani Wall Street, New York City

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Seating for the dinner is on first-come, first-served basis; seating requests require advance payment. For reservations, please contact The Explorers Club, Telephone: 212-628-8383; E-Mail: events@explorers.org. INVITATIONS TO BE MAILED IN AUGUST.
On May 8, 1909, Herbert Lang (MR'1907) and James P. Chapin (MR'1915) of the American Museum of Natural History set sail from New York Harbor aboard the SS Zeeland, bound for the Belgian Congo on one of the most ambitious expeditions of their day (see page 36). It took four months for the pair to reach Stanleyville (now Kisangani) on the Congo River. From there, Lang and Chapin trekked for 22 days through dense forest, finally making their basecamp at Avakubi on September 30, 1909, with the help of some 200 porters. The expedition—to capture as broad a picture as possible of the region’s biota and cultural traditions—was to take two years. It took six—cut short only by the outbreak of the First World War.

Today, what is now the Democratic Republic of Congo is of great environmental concern—particularly the region of the Rwenzoris, or “Mountains of the Moon,” on the Ugandan border. The snow-capped peaks of the Rwenzori Mountains are well known to members of The Explorers Club through Chapin’s iconic image—taken on a subsequent expedition to the Congo in 1927—which has appeared on our membership cards and countless programs and brochures. The alpine aquatic environment of their glaciers—at the headwaters of the White Nile—hosts an extraordinary range of flora and fauna, some currently on the IUCN Red List. According to Richard Taylor of the University College London, climate change is having a major impact on the mountain range: in 1990, Rwenzori glaciers had receded to about 40 percent of their recorded extent in 1955 and to less than one quarter of what they had been in 1906 when they were measured by Luigi Amadeo, Duke of Abruzzi, an honorary member of The Explorers Club. As of this writing, an Explorers Club Flag expedition is headed back to the Rwenzoris to monitor their changing climate (see www.MountStanleyExpedition.com).

In the issues ahead, we will be following up on some of the pioneering groundwork laid by Lang and Chapin.

ANGELA M.H. SCHUSTER, Editor-in-Chief
NORTH/NORD celebrates the breathtaking landscapes of Iceland and the Faroe Islands through more than 100 stunning images by renowned photographer Marco Paoluzzo.

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Globally recognized as a hotspot for biodiversity, Madagascar has announced its intentions to triple the amount of its land under protection, and a research team led by Claire Kremen of the University of California, Berkeley, has formulated a plan for deciding which areas should be included in this expansion.

“Some 50 percent of Earth’s plant and more than 70 percent of its vertebrate species are concentrated in biodiversity hotspots covering only 2.3 percent of the planet’s land surface,” says Kremen, who, along with her colleagues, has compiled data for endemic species of ants, butterflies, frogs, geckos, lemurs, and plants, and developed a map of the areas that will be most important to consider for expanding the current reserve network. These areas include several regions within the central plateau massifs and littoral forests, which are areas with relatively low forest cover but considerable biodiversity.

According to Kremen, who recently published the results of the study in the journal *Science*, the common approach to conservation planning generally considers a small number of species and relatively large swaths of land. The new study suggests conservation energies might better be focused on zones with the greatest biodiversity rather than large forest blocks hosting only a couple of endangered species.

**BRITISH EXPEDITION IS ALL RUBBISH**

carbon-neutral is the way to go

After successfully completing the world’s first carbon neutral expedition by driving from the UK to Timbuktu, Mali, in a truck fueled by chocolate bio-diesel late last year, the British BioTruck II team is now preparing for their next eco-adventure, flying from the UK to India in fall 2008 using a fuel made from landfill waste. Starting from the Eden Project in Cornwall, UK, they'll be using the low-carbon fuel to power the BioTruck II and two small powered paramotors (motorized parachutes) to prove the viability of bio-aviation fuel made from rubbish. It’s a technology that could one day have all passenger flights cutting carbon and putting rubbish to good use.

Utopian eco-nonsense?—hardly. This expedition is being monitored by independent experts who will certify the carbon footprint and ecological value. The expedition organizer is former journalist Andy Pag, 34, of London, who has 15 years of experience organizing vehicle-based expeditions across Africa and other parts of the world. For more information or to support the project, contact: Andy Pag, www.biotruck.co.uk, andy@biotruck.co.uk
A CENTURY AFTER SHACKLETON

descendants to retrace steps

Three descendants of Sir Ernest Shackleton and his team are carrying out grueling training in Greenland to prepare for an attempt to complete the explorer’s failed journey to the South Pole. The Shackleton Centenary Expedition will depart in October, 100 years after the original expedition, and follow the same 1,450-kilometer, 80-day route as their predecessors.

Shackleton’s crew was forced to turn back 156 kilometers from the pole on January 9, 1909. The twenty-first-century explorers are being led by Army Lt. Col. Henry Worsley, a descendant of Frank Worsley, Shackleton’s skipper on the Endurance, the ship used in a following polar expedition. He traveled to Greenland on April 15 with team members Will Gow and Henry Adams for a “full dress rehearsal” for the “main event.” The men have been training for four years.

Gow, 35, from Ashford, Kent, UK, is related to Shackleton by marriage, and Adams, 33, from Suffolk, is a great-grandson of Jameson Boyd-Adams, number two on Shackleton’s team.

The men will set out from the edge of the Ross Ice Shelf on October 28, as Shackleton and his team did a century earlier. They will be joined by Patrick Bergel, Shackleton’s great-grandson; Tim Fright, great-great-nephew of Frank Wild, the only explorer to accompany Shackleton on all his missions; and David Cornell, 38, another great-grandson of Boyd-Adams.

The expedition will launch the £10 million Shackleton Foundation, which will fund projects that embody his hunger for “calculated risk.” For more information: www.shackletoncentenary.org.

HARD LANDING FOR SPACE PRO

short of target in Kazakhstan

When Peggy A. Whitson, 48, landed with two crewmates at 4:30 a.m. EDT on April 19, she had spent 377 days of her life in space, making her the single most experienced astronaut in American history. But re-entry, in Russia’s Soyuz TMA-11 spacecraft, was not as planned. The Russian news agency Interfax reports the Expedition 16 crew was in “serious danger” as they came down, landing on the steppes of Kazakhstan some 475 kilometers short of their intended target. It took 45 minutes for a rescue helicopter to reach her and her two crewmates—Russian cosmonaut Yuri Malenchenko, 46 and South Korean astronaut So-yeon Yi.

Their ship entered the atmosphere with its hatch instead of its heat shield facing forward. The story quotes an unidentified Russian space official as saying the hatch was damaged, as well as a valve that equalizes air pressure between the inside and outside of the ship after it enters the atmosphere.

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The Expedition 16 crew carried out a number of experiments to gather information about the effects of long-duration spaceflight on the human body, which will help in planning future forays to the Moon and Mars.

NASA's space operations chief, William Gerstenmaier, said, “We’ve detected something on two flights significant enough that it needs to be understood. But the good news is that we have the right people working on this. The Russians are taking this extremely seriously.” NASA says it is much too early to come to any firm conclusions about the long-term reliability of the Russian ferry craft. After the space shuttles are retired in 2010, the plan is to rely on Russian Soyuz ships for several years to transport American astronauts to the space station.

-around iceland by kayak-

paddling Arctic waters for charity

New York City-based kayaker Marcus Demuth departs June 7 on a solo circumnavigation of Iceland by sea kayak. This estimated 2½-month, 2,300-kilometer trip has reportedly been attempted solo only twice, and has been successfully completed only once. Departing from Reykjavik, Demuth will circle Iceland in a clockwise direction to take advantage of the currents. He will carry enough camping gear and food for three weeks at a time, stopping to replenish food supplies as needed.

Demuth's Around Iceland 2008 Sea Kayak Expedition is raising funds for the all-volunteer Icelandic Association for Search and Rescue (ICE-SAR), which coordinates 220 sea and mountain rescue teams, accident prevention divisions, and youth sections. Demuth, 38, who works as a musical instrument coordinator for BMP, the parent company of Blue Man Group, will dedicate his trip to ICE-SAR in the hope of raising awareness and valuable funds for the vital work that their volunteers do under life-threatening weather conditions.

With its northern shore just three kilometers shy of the Arctic Circle, Iceland is located in one of the toughest marine environments in the world, the North Atlantic Ocean. The exposure of its southwestern coast to the large Atlantic swells creates a formidable dumping surf that makes landings extremely difficult; the katabatic winds that howl over sloping glaciers and sparsely populated, jagged shores, not to mention the cold temperatures and fast-changing weather patterns, seriously challenged previous expeditions. This may explain why so few kayakers have attempted to circumnavigate Iceland by sea kayak. To follow the expedition, visit: www.aroundiceland2008.com.

- rodden redpoints meltdown-

climbing on the edge

In late February, La Sportiva athlete Beth Rodden, 27, stood at the base of a slightly overhanging, thin finger-crack near Cascade Falls in Yosemite Valley, CA. She began working the climb in front of her more than four months ago, fighting through the tough Sierra Nevada winter to rehearse the moves and prepare for a redpoint (lead climbing an ascent without falls or illegal rests). She knew that it was the hardest climb she had ever attempted. Rodden reached the first hold in the ultrathin finger crack and began climbing. She moved up the rock quickly, grabbing key pieces of gear duct-taped to her harness and rapidly placing them in the crack because the stances were too tenuous to hesitate for even a second. She pulled through the 14-meter overhanging crack smoothly. Above her was another eight meters of discontinuous seams leading to the top of the route.

In the past, mist from the nearby Cascade Falls dampened the lichen-covered rock, causing her feet or hands to unexpectedly pop off the holds. However, for this attempt, the wind blew in her favor and she “sent” the route to the top, using rope and gear only for protection in case of a fall.
“The crux for me came about six meters up the route. There is a section where the feet turn horrible and the handholds get really thin and you have to motor through to a good hold,” said Rodden. “There were so many factors for this route for me. The waterfall that kept swelling and creating more and more spray. The pool at the bottom was getting higher and higher, and the constant huge Sierra storms dropped feet of snow on the route. So it was a matter of staying physically fit and keeping psyched.”

Rodden named the route Meltdown, in part because of the snowmelt that kept the route wet much of the time, and in part because of the mental anguish the route caused her.

“After one particular storm, we went to the route and the waterfall was huge, drenching the bottom with spray. I had to hang on it and I thought it was out for the season, and the result was a meltdown,” she said.

Rodden has been hesitant to give Meltdown an exact grade. Others who have tried the route say it is 5.14c. Beth sent it in impeccable style, with all natural protection, and placing all of her gear on lead. Ascending Meltdown puts Rodden in an elite group: only three women have even climbed a 5.14c. Reportedly, the route is likely the hardest naturally protected rock climb ever sent by a female and one of only a handful of traditional 5.14c’s in the world.

Tools of the Trade

Solar Lite hybrid-power flashlight

One of the great joys of being deep in the woods far far away from the light pollution generated by the urban world is the seemingly endless brilliance of the night sky—pearls of distant stars set against the black velvet of deep space. Conversely, one of the more frightening aspects of being so deep in the woods is the prospect of maneuvering through them in the dark of night on a mini-expedition in search of a quiet place to take nature’s call. I was camping in the Petén region of Guatemala when I first realized how lame my trusty flashlight really was. It offered me two options—either a dim aura of light two meters in diameter or an intense pinpoint of light to illuminate the unknown path ahead, which, on close inspection, was found to be a dense carpet of crawling critters carrying out their nightly activities.

As I tend to do will all gear and gadgets found to be sub-par, I deep-sixed the light upon my return home and began looking for its replacement, which I found in the Solar Lite hybrid-power flashlight. Lightweight with the intense lighting one can only get with an LED, the Solar Lite can be charged by any available light source, be it the sun or gallery tracks at home. A full charge holds some 16 hours of light, which the device can store for up to three years. With a retail price of $24.95, the Solar Lite is inexpensive in comparison to its rivals and worth every penny. Don’t leave home without it. www.hybridlight.com —AMHS
AmAzilia luciae. Identification: A mere 9.5 centimeters long, the male has a glittering blue-green throat and upper chest, sometimes appearing gray, mottled, or dusky. The rest of its body is pale gray with mottled green sides. Its upper parts are bright green with a bronzey tinge on its uppertail coverts. It has a bronze-green tail and a black bill with reddish mandible and dark tip. The female is similar with a less intense and
More restricted gorget. Immature birds have a grayish throat, spotted turquoise. Its voice is slightly metallic ticking, repeated steadily; also buzzy chatters. Less than 1,000 individuals remain of this exotic central American hummingbird, better known as the Honduran Emerald, making it one of the rarest birds in the world. Status: IUCN Red List (1994), critically endangered owing to its extremely small and severely fragmented range, which is declining in response to habitat loss.

Discovered in 1867 by an American businessman and amateur ornithologist named George Newbold Lawrence, the brilliantly colored Honduran Emerald hummingbird is under threat of extinction like no other bird species in Central America. In 1988, the bird was classified as “threatened” and in 1994 it was reclassified by the International Union for Conservation of Nature and Natural Resources (IUCN) as “critically endangered” and placed on their “Red List of Threatened Species,” monitored by Birdlife International.

In 2007, we launched a joint American-Honduran conservation expedition to Honduras to search for the bird and identify as many of its surviving habitat areas as possible to further aid in the conservation of this emblematic species.

Before our expedition, the Honduran Emerald had been documented living in only two valleys in Honduras, Valle de Agalta in Olancho Department and Valle de Aguán in Yoro Department. Although the bird was known also to have thrived in the departments of Cortés and Santa Barbara, it is believed that the species has been wiped out in these regions due to habitat destruction.

Very little was known about the species’ precise distribution in the country or its ecology until the 1980s; it was thought to be common in the moist lowland forests in eastern Honduras, based on surveys carried out by ornithologist Burt L. Monroe in the 1960s. With interest building in recent years in both Honduran conservation and ornithology, the species was discovered to be thriving only in isolated fragments of very dry tropical forest—small patches of woodland that are rapidly being destroyed for conversion to cattle pasture and agriculture. Because of the Emerald’s status as critically endangered, its unique habitat, and its status as the only bird endemic solely to Honduras, it has become a flagship species for conservation in the country, one of the poorest in the Western Hemisphere.

Our primary objective was to locate additional Honduran Emerald populations outside its known range by looking for it in similar habitat zones. A secondary objective was to test the efficacy of aerial surveys for finding isolated fragments of dry forest. Past efforts to document Emerald habitat have been conducted solely from the ground; by air, we could cover a greater area in less time, enabling us to search for forest remnants far from roads and on private land where access is restricted.

For the expedition we assembled a highly qualified and diverse team that included H. Ross Hawkins, the founder and executive director of The Hummingbird Society; Paul House, a British botanist in Honduras who specializes in local flora; Ricardo “Fito” Steiner, who has devoted his life to conservation in Honduras and the Honduran Emerald; ecologist Deborah Atwood; Josh Grossman, a young man who recently joined The Explorers Club; and ourselves. The team also included two Honduran wildlife biologists specializing in the country’s biodiversity, Francisco Urbina and Miguel Cáceres.

The best chance of our spotting the bird and snapping some extraordinarily rare photographs would be in the upper Rio Aguán Valley in an area known as the Polígono—the only official governmentally protected habitat area of the Honduran Emerald. At its heart is a decommissioned air force base with an airstrip that had been used by Contras in more recent years—its control tower the only visible remains left of the old airfield. We made camp in a small building—a soon-to-be research center—that was under construction near the airstrip. We were advised not to wander off after dark and told that planes carrying drugs sometimes landed at night on the wide dirt highway that passed nearby.

One morning, I [Hyman] stayed behind while the team ventured out in search of our quarry in the Poligono. With armed guards lounging nearby and knowing this area was technically off limits to intruders, I felt safe enough to wander into the nearby forest with my camera in the hope of spotting the Emerald. The thick, arid Honduran thorn-forest was composed of scrub brush and cacti that provided little shade, offering no relief from the intense sun and heat. The thorny and stunted dry forest was so disorienting one could easily get lost.
I stopped to get my bearings and suddenly heard a familiar sound: Ting…ting…ting. A rush of fear and adrenaline surged through my body—the noise drawing closer was an unmistakable chopping sound, which I had heard many times in the Panamanian and Colombian jungles. It was the ringing of a machete in action, clearing the way through low-hanging branches. Alone and possessing nothing more menacing than a pocket knife, I froze, believing that keeping still might conceal me from any danger.

A dog walked right past me and stopped, emitting a low growl. As I looked up I locked eyes with a short man wielding a long machete.

_Hola, amigo_, I said, smiling nervously.

I later found out from our host, Fito Steiner, that the man was a reptile poacher. The interloper hissed at his dog and they both vanished quickly.
into the maze of dry-forest.

Relieved, I wiped the sweat from my brow and prepared to jog back to basecamp. But at that moment, I heard a fluttering noise buzz past my head. As I pivoted and raised my camera, I saw it was a shy but unafraid Honduran Emerald perched on a twig an arm’s length away, and I squeezed off several frames. I was careful not to make any sudden movements, knowing the bird would soon be off again in search of nectar from his life-sustaining flowers.

Before arriving in this magical place, our team of five observers—plus pilot David Ruiz—had flown in a 1982 Cessna 206 at low altitude for two days, searching for patches of dry-forest. We took waypoints above more than 50 forest remnants using a Magellan handheld GPS unit. During the following week our team ground-truthed on foot
the forest patches we identified from the air, documenting the presence of endemic food plants and plant species upon which the Honduran Emerald is known to depend.

We traveled 1,600 kilometers in two donated 4x4 pickups on rough roads—many still washed out from Hurricane Mitch in 1998—and eventually completed a large circle in Honduras. Other than numerous flat tires, we only had one occasion that gave us real concern while traveling through the wild western interior of the country, where horses are still commonly used for transportation and men often have handguns strapped to their sides.

Outside the Honduran capitol of Tegucigalpa, we frequently encountered small troop units, brandishing riot shields, batons, and M16A2 rifles lining the highway and looking unhappy. In one half-hour stretch of road, we calculated that we had passed thousands of troops. When we pressed botanist Paul House for an explanation, he said that loggers had recently blocked the roads to protest a moratorium on illegal logging in the country and the troops had been dispatched to keep the traffic routes open. A government-imposed moratorium on logging had expired before a long-anticipated Honduran Forestry Sustainability study was completed, leaving our team trapped in the middle of the dispute between the government and the loggers.

We were stopped at one checkpoint by four young, heavily armed government troops who motioned the vehicles to the side of the desolate road, which caused a bit of anxiety. Fito got out of our lead vehicle and talked to the soldiers. “They want a ride to the next military outpost,” he said, smiling. We eagerly complied, relieved to have a military escort, and the soldiers jumped into our trucks.

Over the course of a week trekking on the ground, we found patches of extreme dry-forest that looked suitable for the Honduran Emerald, but they were heavily compromised from local use and cattle grazing. Proof of that was the thick overgrowth of nonnative brambles, which was impenetrable.

Other more suitable sites had plant species...
characteristic of the forested areas where the Emerald is still thriving. At these sites we observed some 40 species of birds that are widespread and characteristic of arid habitats throughout Honduras, but most had no Emeralds or any of the species typical of dry-forests, such as the White-bellied Wren (*Uropsila leucogastra*), the White-lobed Gnatcatcher (*Polioptila albiloris*), or the Green-backed Sparrow (*Arremonops chloronotus*). We did find very good stretches of dry-forest in Santa Barbara near the town of San José Colinas, which looked ideal for the Honduran Emerald—but again, no Emeralds fluttered anywhere.

Finally, in the vicinity of San Esteban in the Valle de Agalta, we discovered Honduran Emeralds in several forested areas that had not previously been visited by conservationsists. A significant population of Emeralds was located in the Valle de Telica in Olancho, which had not previously been explored. These sightings confirmed our suspicion that more populations remain to be discovered elsewhere, a fact that could greatly enhance the possibility of conserving the species. This find also validated the purpose and methods used by the expedition, such as chartering small aircraft to survey potential habitats. More overflights are needed for a thorough survey, and considerable canvassing on foot will verify the condition of forest remnants and whether Emeralds thrive in them. At that point, conservation efforts on behalf of the species can begin in earnest.

Our expedition offers the first real hope of finding pockets of Emeralds in areas where the species is not known or is thought to have gone extinct. The dry-forest areas we identified in northern Santa Barbara and southern Cortés looked promising for Emeralds, but the absence of the hummingbirds was perplexing. There are several theories to explain why Honduran Emeralds are not buzzing around in places identical to their known forest habitats.

First, time was limited for the expedition and it is possible that we simply failed to find hummingbirds hiding in plain sight. A concentrated netting effort would have answered the question once and for all. Second, it is possible that these areas are not as perfect a habitat as we had assumed. They may lack year-round resources needed to maintain a population of Emeralds, due either to human impact or acts of nature. Elsewhere in Honduras, it is suspected that the species undergoes seasonal movements to track key resources—a common phenomenon in tropical birds and especially hummingbirds. The species is sure to go extinct if its habitat does not have all the resources needed for long-term survival.

Since our expedition, on which we carried Explorers Club Flag #51, our work has been cited in the Orion Grass Roots Network, an organization that connects and empowers groups working for positive social and environmental change across North America and beyond. Both the Ecologic Development Fund and The Hummingbird Society have noted our expedition in their newsletters and two lectures have been given to professional organizations. We are investigating the possibility of having the Honduran Emerald added to the United States’ Endangered Species Act list. The Hummingbird Society has also partnered with Clos LaChance Winery and created the Honduran Emerald Meritage, which is expected to raise more than $20,000 to purchase adjacent lands needed to save the bird’s habitat. We plan to return to Honduras this November to conduct a more extensive investigation of the Santa Barbara area.

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**BIOGRAPHY**

Robert E. Hyman, LF ’93, has organized, led, and participated in numerous expeditions that have focused on scientific field research in the disciplines of archeology, conservation, ornithology, sociology, and technological advancement. An ornithologist specializing in the structure and composition of canopy bird communities in lowland tropical forests, David Anderson is a Ph.D. candidate at Louisiana State University, and an Explorers Club grant recipient.

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LEAVING BEHIND THE ROMAN RUINS OF THE MEDITERRANEAN COAST, EXPLORERS JOURNAL CONTRIBUTING EDITOR NICK SMITH TAKES A CLASSIC JOURNEY SOUTH ALONG LIBYA’S ANCIENT CARAVAN ROUTES TO THE DESERT OASIS OF GHADAMES, WHERE THE TRADITIONS OF THE TUAREG REMAIN LARGELY UNCHANGED.

Deep in the heart of Tripoli’s Old Town, a stone’s throw from the Arch of Marcus Aurelius, is a much restored eighteenth-century house facing onto a lane so narrow that two horses could barely pass one other with ease. Large wooden doors open into a marble-flagged courtyard, which could belong to one of any number of colonial residences that give Tripoli’s medina its air of faded importance and former prosperity. Currently housing a scientific library, the building is in fact the Old British Consulate, itself a former palace of Ahmed Pasha, founder of the Karamanli dynasty. Until quite recently the consulate was most famous as the unofficial hub of Tripoli’s diplomatic community, immortalized in Miss Tully’s letters, written during the author’s ten-year residence at the court of Tripoli. Tully’s classic portrait of late eighteenth-century diplomatic life within the sphere of influence of the Ottoman Empire is no longer a bestseller, although you might just get hold of a facsimile copy at Fergiani’s legendary bookshop on the other side of Green Square.
Today, the Old British Consulate is famous for a plaque that describes to the passerby the nature of this building. After stating its original function as a royal palace, the plaque continues in a mixture of diplomatic rhetoric and thinly concealed disdain: “However, the so-called European geographical and explorative scientific expeditions to Africa, which were in essence and as a matter of fact intended to be colonial to occupy and colonize vital and strategic parts of Africa, embarked from this same building.”

It was from the British Consulate that I started my own journey of exploration through Libya’s Western Provinces, somewhat daunted by the open cynicism I felt sure I would meet. As I stood there in the narrow alley, the writing was literally on the wall—the sign was a clear allusion to the notion that nineteenth-century European explorers had used Tripoli as a jumping-off point in order to forge lucrative trade routes into Africa’s interior. In a way, I was aiming to follow these very routes, but I was also interested in retracing the steps of one Philip Ward, a British explorer and fellow of the Royal Geographical Society who traveled extensively in Libya in the 1960s. Ward, who was also a poet and novelist, wrote a travel guide to the region that in some respects is the blueprint for travel in Libya today. Published by Faber and Faber, the Touring Libya trilogy was the first widely available book to detail a classic route of exploration into the interior. Ward’s journey took him from the Roman architecture of the Mediterranean coast down through the Berber heartland of the Jebel Nefusa or Western Mountains. From here his route takes to the desert, arriving eventually at the ancient Saharan caravan settlement of Ghadames, the oasis at the tripoint of Algeria, Libya, and Tunisia.

There is only one Roman building of any consequence in modern Tripoli—although curiously there are also the remains of a Roman pillar embedded in a wall deep in the medina. This is the Arch of Marcus Aurelius, a massive stone edifice that stands at the crossroads of two ancient roads that met in Oea, the old name for Tripoli. The story goes that the dictator Benito Mussolini admired its grandeur so much that during the Italian occupation he ordered neighboring buildings to be torn down so that he could see it from the harbor. According to Ward, “the arch typifies the Roman virtues of solidity and permanence; the worn sculptures have a stolidity about them, which contrasts sharply with the delicacy you will encounter in the sculpting of the Leptis columns.”

If you are standing at the arch, facing the harbor, turn left and you’re on the road to Tunisia. Turn right and you’re headed for Egypt. In Roman times the journey west took you to the city of Sabratha, while the more imposing Leptis Magna was virtually equidistant to the east. These two ancient ruined cities are without doubt the most important of Libya’s large-scale antiquities, and arguably the best-preserved Roman cities in the Mediterranean. There have been in the past few decades some notable excavations and restoration work—particularly in the case of Sabratha’s theater and the arch of Septimus Severus in Leptis Magna. Even today these ruins are truly deserted, and to walk among the lonely palisades and columns is to walk back in time. If you listen carefully you can hear the sounds of the oil presses and fish markets, the brothels, the temples, and the public baths. There are some unexpected smaller-scale wonders to be found on the coast road linking Sabratha to Leptis Magna. To the west of Tripoli lies a small suburban town called Janzur. Once celebrated for its peaches and pomegranates, it is now known for its small but immensely important collection of Byzantine tombs. Discovered in 1958, most are in a bad state of repair, although one has survived in pristine condition and the paintings that decorate its walls are nothing short of exquisite. To the east is Villa Sileen, a Roman summer residence of great opulence, famous for its delicate mosaics, where sand-colored domes cover a bathing complex overlooking the Mediterranean.

The next stage of the journey through the Western Provinces begins as the road turns south into the western highlands and climbs sharply up to a plateau. Here, the trappings of Roman urbanity are left behind and the indigenous cultures of Libya’s ancient peoples emerge. It’s difficult to imagine how this arid land could furnish the means of life to the Berber tribes who have chosen the desert for their home, so says an ancient paperback travelog that I found in Fergiani’s. It’s called From Tripoli to Ghadames, and bears no sign of authorship other than an addendum sheet that says it was “compiled by E.T.A.L.” and printed in Syria. The book is most notable for its gorgeous watercolor illustrations that date it to the 1930s. There are some black and white photographs of the troglodytic dwellings at Gharyan; the “Mussulman
The Red Castle of Tripoli, Al-Saraya al-Hamra, dates at least as far back as the Arab invasion of A.D. 644. The high defensive walls now form part of the largest museum in Libya, which has on display, among other things, Colonel Qaddafi’s sky-blue Volkswagen Beetle.
Cemetery” in Ghadames; the granaries of Qasr-al-Haj, Kabaw, and Nalut; and the hotel at Jefren. Though rudimentary, these photographs are reassuring in that they show how little and how slowly life in Tripolitania has changed in recent times. But what the photographs can’t tell you is that while there were once 350 Jews living in Jefren, there is now only an empty and dilapidated synagogue.

Built on the site of an old castle, the hotel at Jefren is the only accommodation for some distance. It clings to the top of a huge ferruginous outcrop commanding “one of the most beautiful and impressive views in the whole of Libya.” Looking back over the trail of dust that snakes away through the Rumia Valley and into the sunset, one starts to see the bones of this empty landscape. There are palm-fringed oases at the foot of the mountain, beyond which stretches desert wilderness. Our anonymous author advises that the desert must be treated with respect, and recounts the cautionary tale of the Swiss traveler who, a century ago and against all advice, set out to walk from Nalut to Ghadames alone. His grave is a simple pile of stones just outside Sinauen. The story is still told in Ghadames today, as a reminder of the dangers awaiting those who wish to conquer great distances in Africa.

The leg of the journey from Nalut to Ghadames is desert, endless and uncompromising, hour after hour of colossal emptiness. The Lonely Planet guide points out gracelessly that the desert “can do your head in” and suggests taking along an MP3 player to stave off the boredom, missing the point completely. The desert is the one place where you can leave behind the white noise of modern life, rub off the rust of experience, and, as one desert explorer wrote, “...listen to the deeper workings of the soul.” Try as I might, I can’t imagine Wilfred Thesiger, T.E. Lawrence, or Johann Burckhardt wandering the Sahara wired into an iPod.

In Touring Libya, Ward says you should arrive at Ghadames by land. “In my opinion Ghadames is too strange, too exotic to be reached by the leveling aeroplane.” Variouslly described as the “jewel” or “pearl” of the Sahara, Ghadames has been for 5,000 years a place of almost savage history. A few highlights: two millennia ago it was occupied by the Romans; the Allies bombed it during the Second World War; it has been forcibly converted to Christianity, and has since adopted its more familiar Islamic identity. Now inscribed on
the UNESCO World Heritage list, it is the setting for an annual festival of Tuareg culture. Each November, hundreds of these nomadic pastoralists turn up to display their traditional dances, jewelry, leatherwork, and camels. The central square is given over to evening musical performances and sword dancing, but during the day in the old town itself, private houses are opened for singing. Traditional music is the work of women and girls, who accompany themselves with monocord violins and goatskin tambours. Their vocal “trilling” is the authentic sound of Libya.

On the edge of town, by the cemetery, boys with cheap electric guitars play modern Tuareg music on a makeshift stage on a flatbed truck. Their rhythms are handed down across the centuries and the melodies are stolen from the radio. The amplification is badly distorted and the guitars drift wildly out of tune in the 100-degree heat. But they’re doing their bit to uphold the rock-'n'-roll end of the festival. They may look incongruous with their immaculate robes and their microphones, but there is a very real sense that they may be on the point of inventing tomorrow’s traditions. Tuareg guitar fusion exports well to world music festivals, and CDs sell by the bucketload on the internet. But here in Ghadames it’s a bit of a sideshow, largely ignored by the older tribesmen, who are more interested in fantastically arrayed camels, tattooed hands, and indigo tagelmousts.

The anonymous author of From Tripoli to Ghadames finishes with a prayer for the desert town. “We must take our leave of Ghadames, the Queen of Grace…may she keep within her magic oasis for ever a little of our thoughts.” The prayer continues with the statement that “no other country has given us such poesy.” Not to be outdone, Ward closes the “Western Provinces” with the almost defiant assertion that you will never forget Ghadames “even if you visit the larger oases of the Maghrib.” Both authors are clearly infatuated with this extraordinary journey that started in the Old British Consulate in Tripoli. The explorers of the Victorian era may well have been, as the sign says, looking for a way into the interior, but what they found were the ancient routes that have crossed the Sahara for five millennia. Today, these routes are part of the deep, deep lore of the proud nomadic peoples who inherited the desert from the generations that preceded them and dwell there still.
A CENTURY AFTER ONE OF THE BIGGEST SCANDALS IN EAST AFRICA SHOOK THE BRITISH ESTABLISHMENT, SIR CHRISTOPHER ONDAATJE RE-EXAMINES A FAMOUS TALE OF MURDER AND ADULTERY THAT WAS TO INSPIRE ONE OF ERNEST HEMINGWAY’S GREATEST STORIES, AND ASKS: WHAT REALLY HAPPENED ON THAT FATEFUL KENyan SAFARI...?

Some true stories are so intriguing that they become folklore within a community, leaving a permanent mark on a place or culture. So it is at Laisamis, the scene of the horrific incident that became known as the Patterson Affair. An unremarkable village, Laisamis is, however,
remembered as the place where the phrase, “Are you married, or do you live in Kenya?” originated.

The Patterson Affair was immortalized by Ernest Hemingway in his classic *The Short Happy Life of Francis Macomber*, a story replete with themes central to Hemingway’s work—masculinity, death, men and women, man and nature. In a tale alive with tension, suspense, and fear, the question of whether Margot Macomber deliberately shot her husband is still debated by critics today.

The background to Hemingway’s story is almost as intriguing as the story itself. In 1934, Hemingway went on his first Kenyan safari and was guided by the great white hunter Philip Percival. One evening around the campfire, Percival told Hemingway an extraordinary account of infidelity, corruption, and a possible murder. Percival’s narrative made a deep impression on Hemingway, who used it as the source material for the story he was to write two years later. *The Short Happy Life of Francis Macomber* is an examination of fear: the ferocity of its grip, its debilitating power and, eventually, the freedom and true manliness that result from controlling it. After the shame of running from a wounded lion, Macomber is further humiliated by his wife’s infidelity with Robert Wilson, the fictional white hunter. The following day Macomber conquers his fear, shoots well, and so starts his “happy” life as a true man.

Margot notices the change, but instead of admiration, she feels resentment as the balance of power in their relationship has shifted. When Macomber faces a charging buffalo, Margot shoots Macomber in the back of his head. Hemingway states plainly that she shot at the buffalo, not at her husband, but Wilson clearly thinks Margot intended to shoot Macomber, asking why she didn’t poison him instead.

By 1907, Colonel John Henry Patterson had achieved fame as the killer of the man-eaters of Tsavo and was the logical choice to become chief game warden in Kenya. It was a year later when he set out on safari to explore the northern game reserve and survey the terrain for a suitable game-park boundary. He took with him an old friend, the Honourable Audley Blyth, and his wife Ethel “Effie,” who both wanted to hunt game on the Kenyan plains. Porters, gun-bearers, a cook, and a multitude of staff were taken on for the trip. Three Europeans on whom Hemingway was to base his story, ventured out on safari, but only two returned. Blyth was a lone hunter, but early into the safari he was prevented from hunting because of an infected foot. The injury meant he was unable to ride and porters had to carry him for kilometers on a stretcher in the blistering heat. Blyth’s incapacity pushed Patterson and the seemingly willing Mrs. Blyth closer together. The one hunting trip the Blyths made together was a disaster. Crossing a dry riverbed, the safari was suddenly faced with a rogue elephant that blocked their path, preparing to charge. Patterson immediately called for Mrs. Blyth to take the first shot, but though her aim was accurate the wounded animal refused to fall and stumbled into the bush, disappearing from sight. From the vantage point of a high rock ledge, the hunters saw the elephant recover and Patterson hastily set off with Blyth on horseback to protect the safari.

Suddenly, the enormous beast reared up before them and charged, nearly trampling one of the gun-bearers. It was in Blyth’s line of fire but, as with Macomber, Blyth faltered. Patterson managed to get a shot at the elephant in the confusion, but it crashed on gouging Patterson’s horse to death. The elephant was tracked down and finished off by Patterson before Mrs. Blyth was “placed in triumph on his back.”

On March 20, 1908, the safari reached Laisamis. Blyth was unwell and had been suffering from fever. Both Patterson and Mrs. Blyth later claimed that he became ill after only a few weeks on safari, and although they both asked him to turn back he had insisted on carrying on. Blyth was reluctant to leave his wife and Patterson alone together, and his health continued to deteriorate. He insisted he was fit enough to go hunting and later that day shot a giraffe before returning to camp, shivering and senseless. He was then put to bed in his tent.

What exactly happened next is not clear. Later testimonies reveal that Patterson and Mrs. Blyth’s statements supported one another, despite serious discrepancies between them and those of other witnesses. Patterson certainly remained in Blyth’s tent for a good part of the night attending to him. But in the early hours of the morning he left, either to sleep outside in a chair (as he claimed) or to return to his own tent where Mrs. Blyth was sleeping. There was only one bed in Patterson’s tent.

The following morning, Patterson went into Blyth’s tent to check on his condition. He was much recovered and declared himself fit enough
Mrs. Blyth sits atop a late rhino, delighted in her success in bringing down the great beast. Courtesy Sir Christopher Ondaatje

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to ride. More importantly, he was lucid and it is entirely possible that he had been awake and heard Patterson and Mrs. Blyth together. Eventually, Patterson left Blyth’s tent to discuss the day’s arrangements with the headman stationed about 60 meters away. And then, everyone heard the gunshot from Blyth’s tent.

According to Patterson’s statement, the bullet had entered Blyth’s right temple. The implication, from the set-up of the weapon, was that Blyth had shot himself. With Blyth’s death it would have been sensible for the safari to turn back to Nairobi and inform the authorities. But Patterson was determined to continue. He later swore—in a 26-page letter to the Colonial Office dated 15 September 1908—that there had been a mutiny on the morning of Blyth’s death: bearers had seized arms and had refused to go any further into the desert where they feared they might die from starvation and thirst.

Audley Blyth died on 21 March 1908, but his death was not reported until May. The official inquest began immediately after the safari eventually returned to Nairobi on May 8, 1908. The British government found it difficult to understand anything of Patterson’s behaviour on the safari. Why he hadn’t returned to Nairobi immediately after the shooting or informed anyone of Blyth’s death was a puzzle. The inquest eventually recorded that the cause of death was a self-inflicted bullet wound,
and that Blyth was suffering from depression and therefore not accountable for his actions.

News that Blyth had died and that Patterson had not returned immediately to Nairobi with Mrs. Blyth provoked one of the biggest scandals in East Africa. Questions raised at the inquest were either not answered or not given satisfactory explanation. The suspicion that Patterson and Mrs. Blyth had quite simply carried on a romantic liaison on safari after the death of her husband caused immediate public concern. As Patterson himself commented: “The slander is now being circulated that I shot Audley Blyth and tried to run off with his wife!”

Criticism of the scandal reached such a peak in 1908 that the British government sent Patterson and Mrs. Blyth back to England.

Patterson presented an embarrassing problem for the Colonial Office. His behaviour had created a serious scandal in East Africa and although no one had been able to prove any involvement in the Blyth death, all of East Africa had become very suspicious. Finally, on March 29, 1909, Patterson resigned his post as chief game warden in Kenya on the grounds of ill health. He had been encouraged to do so by the Colonial Office in return for an official statement from them absolving him of any blame: “Your resignation now enables the secretary of state to make a statement in the Lords.”

Statements were duly made in the House of Lords two days later, on April 1, 1909. Lord Crewe, the Secretary of State for the Colonies, said there was nothing to connect Patterson to Blyth’s death and that he had acted with kindness and humanity throughout the safari. Patterson was exonerated and Mrs. Blyth was spared further criticism. There was no mention of murder or adultery. This officially ended the Patterson Affair, but suspicion has long remained over whether the Blyth suicide had been a cover-up.

In 1934, Hemingway took the story Percival told him in Kenya and changed the principal characters from British aristocrats into rich Americans. In real life, Patterson was an ambiguous character whose actions marked him out as a man as brave as he was cruel: a man who could hunt down man-eating lions, only betray his dead client to the authorities as a weak alcoholic. But in The Short Happy Life of Francis Macomber his counterpart Wilson, as with the Macombers, is more straightforward. Hemingway, for all the drama in his story, is more concerned with motive, morality, and masculinity than action.

To this end, he both fleshes out and pares down his characters. Hemingway takes the clues the Patterson Affair offers as to the parlous state of the Blyth’s relationship and magnifies them into a picture of marriage as a battle for power. Margot becomes the ultimate man-eater, a woman who abuses her position of dominance and lashes out when it threatens to be taken from her. Both husband and wife read almost as caricatures in their relative positions, while Wilson stands much more clearly than Patterson as observer, moral judge, and exemplar of manhood.

The Short Happy Life of Francis Macomber is a more powerful story than the real events that inspired it, where the enduring mystery is as much what happened as why it happened. It is less muddled, more defined, and sharply written in bold colors. Its ending, despite that lingering question over Margot’s motive, brings satisfactory closure, unlike the true story of real people who are neither wholly weak, nor wholly cruel, nor wholly brave. In the real world there is a lesser sense of moral completion in their endings.

In August 1909, only four months after the House of Lords hearing, Patterson published In the Grip of the Nyika, his own account of that fateful safari. Photographs reproduced in the book include Blyth being carried on a stretcher. There is also a picture of Mrs. Blyth on a dead rhino: “Delighted with her success in bringing down the great beast.” As many had suspected he would, Patterson married Mrs. Blyth, and the couple moved to America, settling in Los Angeles, where he lived until his death in 1947, aged 80. Today he is remembered as a hero, praised by President Theodore Roosevelt and exactly the kind of man Hemingway admired. And yet, history might have treated him differently had he not been the legendary hunter who had so famously brought down the man-eating lions of Tsavo.

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**Biography**

A writer, explorer, and Fellow of the Royal Geographical Society, Sir Christopher Ondaatje is the author of ten books, including *Hemingway in Africa*, the two Burton biographies *Sindh Revisited* and *Journey to the Source of the Nile*, as well as a literary biography of Leonard Woolf, *Woolf in Ceylon*. His latest book, *The Glenthorne Cat and other Amazing Leopard Stories* was just released this spring.
I scissor my hand up and down in the crack, clearing loose grains of sand from the inside edge. The purchase gets better and I commit to the hold and begin cleaning the inside of the next. Midway through my next excavation, the edge of the crack outside my foot fractures. The horizontal runnel I’d been on one move before was little better. I adjust my stance, willing myself to be lighter. This is climbing in Ethiopia, a minute-by-minute guessing game of what to trust in the environment, and how to trust yourself in that environment.

A seemingly unlikely climbing destination, Ethiopia is better known for drought, famine,
poverty, and war. It’s also known as the birthplace and ruling grounds of Emperor Haile Selassie, the Queen of Sheba, and the ancient Kingdom of Axum. Its physical landscape stretches from the fourth highest peak in Africa, the 4,543-meter Ras Dashen, to one of the lowest points on Earth at the Danikil Depression—some 22 meters below sea level—to the headwaters of the Blue Nile. All of these elements make Ethiopia one of the largest wild areas in Africa. And with a vast expanse of 200-meter-tall sandstone towers in the north, Ethiopia holds intriguing climbing potential for a place not known for the sport.

I first came to Ethiopia in October 2006 to write about a rare coffee bean, Geisha, that was thought to be from the Horn of Africa but had never been found there. A relative of this coffee bean, grown in Panama, now garners more than $100 a pound on the market. While the expedition I had joined to cover the story didn’t find Geisha, I found Ethiopia.

In gathering further information on the country, I contacted British climber, Pat Littlejohn, who had been there before. Following our discussions, he sent me eight photos of striking sandstone towers in the northern province of Tigray. The coffee exploration took place in the southern part of Ethiopia, but even before I left the country for the first time I made plans to come back to the explore the north. I returned to Ethiopia the following spring, making my base in Addis Ababa. When I told Ethiopian friends of my plans to climb, I was met with blank stares. When I showed them photos of the north, of shocks of sanguine stone piercing an azure sky, they were further confused. This was not a landscape that most people in Addis had ever seen, let alone foreigners.

This is not the Himalaya, Patagonia, or the poles. Exploration has occurred in Ethiopia, but not at the level of its potential due to politics and safety—government sanctions, war, and persistent international restrictions, to name a few. The result is a country twice the size of France that is just now being understood for its full geographical diversity. At least this is how I put it to potential partners when I was assembling my team. This lured people in, but eventually the following conversation would ensue.

A potential teammate: “Is it safe in Ethiopia?”

Me: “That depends on your interpretation of safety.”

I would go on to explain recent kidnappings, religious violence, and then wrap up the conversation with my assuring them that despite all of this I felt safer in Ethiopia than I did in most places in the United States. I’d end with the following tidbit that sealed the deal: “Where else in the world are you going to find unclimbed sandstone spires anymore?”

By March 2007, I had a team assembled. Kristie Arend, Helen Dudley, Caroline George, and photographer Gabe Rogel. Guided by overly digitized versions of the images Littlejohn had sent me, we headed off to a handful of rock faces outside of Hawzien, a small town in Tigray Province. Our objective was Gheralta, the last in a series of sandstone upthrusts covering much of Tigray. The largest of these is three kilometers long and 450 meters tall. The rock folds over itself and turns sharp and smooth corners to form buttresses and isolated towers with pinnacles and faces repeating in every direction. Other formations extend beyond
this massif north and south. The pictures we had seen did not do this region justice, and once we saw Gheralta up close I knew it could take a lifetime to explore these faces. Eager to start climbing, we picked our way through terraces to the base from the road within an hour. Twenty meters of climbing later, we were duly humbled.

Sandstone is not known for its solidity. Sandstone in Ethiopia even less so. Perfect cracks became fissures on a suspended panel; gear bit into the rock and left an impression when removed. Not expecting things to be easy is one thing, realizing just how hard they might be is another. It quickly became clear that when rock climbing in Ethiopia, following is definitely the desired position. Freed of such worries as wondering if the anchor you are being belayed on is strong enough or how much rock you are knocking off below, the climbing is sublime. You can dance over edges and flirt with jamming and laybacking. You can be in Ethiopia. If you are leading, sometimes all you want is to be somewhere else.

Northern Ethiopia is resplendent with vertical terrain and vistas. Locals often climb third, fourth, and, in some cases, even easy fifth class terrain to simply get to church—attending services still held in ancient sanctuaries hewn from the rock 1,000 years ago. We went to visit one of the most famous of these, Abuna Yemata, and used sandstone foot and hand holds worn into the soft rock and polished from centuries of use. While no one in the region is climbing beyond this, the very fact that these churches exist created an understanding of our desires as climbers to explore these faces. Everywhere we went we had local support and interest, which meant that everywhere we went, we were with other people.

In Ethiopia one cannot escape to the mountains, or not for very long. We climbed on escarpments in plain view of a town that was created by forced relocation of people into a centralized area in the name of safety. Below us, the tin-topped rock houses looked like an early effort at Ethiopian suburbia. And we looked like absurd caricatures of humans trying to remain tethered to the faces above. Off in the distance, down a dirt road another 15 kilometers lay Hawzien, the village where we stayed and the site of one of the bloodiest massacres of the Derg, a communistic regime that controlled Ethiopia from 1974 to 1991. Hawzien is the area’s center and on a Wednesday, market day, in 1988, when people from the surrounding towns and villages came to trade wares, a low-flying plane dropped a napalm bomb and killed 2,500 people. There is a monument to the dead in the middle of Hawzien, placed just so that traffic circles around it; perfectly located next to our hotel so that each morning and each evening, on the way to and from climbing, we rounded this memorial.

To scout out climbing lines we hiked over and through these endless terraces to get close to walls and peer inside cracks and chimneys for a way up. The rock undulates deep orange and red with ochre bands up high. It quickly became clear that we wanted nothing to do with the ochre bands and the horizontal striations they signified in the rock. Even from the ground, this porous upper band, more than a hundred meters above us, looked like a bad idea. But the rock underneath is ever mysterious with potential. We spent countless hours scurrying up and down terraces to get to these faces, taking binoculars to the sandstone cracks and estimating the size and safety of various objectives. We were not there to climb to one specific summit, but rather to see how much we could find to climb.

Our first tower was a five-pitch experience of short sections of perfection followed by long scary choices on questionable rock. Gheralta does not give itself easily to a climber, but then again, that was what we were there for. Deep in the middle of the Nebelet Towers, we climbed 150 meters to the rounded mushroom summit of orange sand and reveled, briefly, in our success before realizing that our only way down was to down-lead. We did this for one pitch and then found gulleys to take us the rest of the way. We drove back to Hawzien that night while the sunset silhouetted acacia trees against the deepening sky. We were in a car driving away from a first ascent and I wondered both if I was up for another Ethiopian climb and how that climb mattered in the face of other similar exploits in the world.

I’m 31. I did not grow up in the golden era of rock climbing and cut my teeth on first ascents waiting
to be plucked around the world, but I have always wanted to be that type of adventurer. Ethiopia represented that chance to me, and it did so in a way that I did not fully understand until now.

I grew up paddling the waters of Northern Minnesota, Canada, and the Arctic, believing adventure had to be removed from daily reality. Nothing would upset me more than an interruption in this perceived sanctuary—be it a plane, a cabin, a trace of anything human but me. That was then.

Now, what I want most is the integration of the extreme and the everyday. I would rather go toward the world than escape from it, which is good because in Ethiopia there is little option of anything else.

Half of the country’s population earns less than a dollar a day and Ethiopia is one of the top ten recipients of foreign aid money in the world. Yet, there are signs of prosperity. In Mekele, the capital of the Tigray region where we were climbing, new glass buildings stand regal and complete with signs advertising office space and internet access. Next door, another building is mid-construction—the scaffolding is branches bound together with twine leaning against concrete walls with edges bubbling over wooden frames. The current Ethiopian prime minister is from Tigray and has infused major capital into the region for modernization.

Ethiopia is the only country in Africa to have maintained independence against the era of European colonialism. Italy occupied the country in the 1940s in retaliation for a vendetta Mussolini had as a result of an Ethiopian victory against his country in the late 1800s. The United Nations helped Ethiopia drive the Italians out but not before several roads were built and the country got hooked on pasta. As a result, spaghetti is readily available everywhere, even in the small villages from which we set off to climb in the north.

Rated one of Frommer’s top 12 adventure destinations last year, Ethiopia has ten national parks with another dozen in the making. The country has emerged from a dark veil of war into a world of opportunity with its natural resources. Is the country safe? It depends on whom you ask. Caught in the middle of a global war on terror, Ethiopia is 60 percent Christian and 40 percent Muslim—the two faiths having largely lived in harmony until now, but that could change. Ethiopia has a contentious border with Eritrea to the north and recently invaded Somalia to the east. Yet Ethiopia’s stability is considered crucial for East Africa’s stability. It houses American military and intelligence installations a mere 400 kilometers from Saudi Arabia.

And this is where we were climbing—in a world where sport, life, history, and culture all converged in an elusive search for summits. We established several beautiful lines, many that I would go back and climb again and others that I would never again attempt. What drove us was the knowledge that we were only seeing part of what there was to see in the area. The sheer density of rock, the consistency of the formations layering out after each other far into the horizon, the sight of another massif just around the corner—all of this created both an urgency and a peace during our trip. There was no way we were going to fully explore the potential of these cliffs, but the mere taste provided inspiration for more.

**Biography**

Majka Burhardt is a Boulder, Colorado-based writer, climber, and certified guide. She is currently on a speaking tour with her book, *Vertical Ethiopia: Climbing Toward Possibility in the Horn of Africa*. www.verticalethiopia.com
INTO THE CONGO

celebrating an extraordinary expedition of a century ago

text by GORDY SLACK

images by HERBERT LANG & JAMES P. CHAPIN, courtesy of the American Museum of Natural History
Until the late nineteenth century, the 2.6 million-square-kilometer inland portion of Central Africa’s Congo Basin was inaccessible to the outside world. To the north stretched the scorching Sahara, to the east were high mountains, and to the south impenetrable jungles and swamps. One-hundred-sixty kilometers of fierce rapids divided the upper reaches of the Congo River from its lower portion, which opens to the Atlantic. Its headlands were unknown to mapmakers until the river was followed to its source in 1877.

Once the river was mapped, Belgium’s King Leopold II established a colony there and began extracting a fortune in rubber and ivory. He built a railroad to bypass the Congo River’s rapids, allowing transport of goods by river and rail thousands of kilometers from Central Africa to the sea. By the turn of the twentieth century, exploration of Africa’s heartland had become a Western industry. Adventurers such as Sir Henry Morton Stanley penetrated it. Big game hunters such as Theodore Roosevelt launched expeditions into it, emerging with trophies and incredible tales. Robber barons exploited it, taking untold African lives in the process.

To the natural science community, however, the Congo was a virtual oasis, brimming with unknown forms of life. Tantalizingly incomplete reports were many, but few systematic studies of its extraordinary and abundant plants, animals, and cultures had been attempted. Due to the difficulties of working in so remote a region, none had been completed. That was the case until 1908, when the colonial Belgian government granted the American Museum of Natural History permission to launch an expedition to catalog one of the least understood biological regions on Earth. Mammalogist and photographer Herbert Lang was chosen as its leader; he would be assisted by James P. Chapin, a 19-year-old Columbia University student and museum volunteer with barely a hair on his chin. By the time the expedition returned more than six years later, Chapin would be a seasoned field biologist and a world expert on Africa’s fauna, particularly its birds.

With two years of funding secured, the expedition departed New York Harbor on May 8, 1909, aboard the SS Zeeland. After a brief stop in Antwerp to gather provisions, permits, and contacts needed in Africa, Lang and Chapin sailed on to Boma on the Congo River estuary, then capital of the Congo Free State. By rail and boat, they traveled 1,600 kilometers upriver to Stanleyville (now Kisangani), walking through dense rainforest to Avakubi, where they made their basecamp. At any given time during the expedition, they had with them some 200 porters and more than a dozen hunters and animal preparators, without whose support their work would have been impossible.

When Lang and Chapin got word of the outbreak of World War I in July 1914, they began the task of getting their collections back to the coast and then onto a ship for New York. After months of hauling crates through the rainforest and along the Congo River, Chapin embarked on the journey home with the collections by way of Liverpool. The German-born Lang took a somewhat longer route by way of Angola and Lisbon.

In their six years in the Congo, Lang and Chapin collected the most complete record of the plants, animals, and cultures of the Congo Basin up to that time—5,800 mammals, 6,400 birds, 4,800 reptiles and amphibians, 6,000 fish, more than 100,000 invertebrates, and some 3,800 anthropological objects. Lang was one of the best ethnographic and wildlife photographers of his day and Chapin was a gifted illustrator. Together, they produced extraordinarily rich documentation, resulting in 9,890 photographic negatives and more than 300 watercolors, along with numerous volumes of field notes. Many of the publications resulting from the scientific findings of the expedition continue to stand as both seminal and definitive works in their fields. Among a host of later accomplishments, Chapin served as the fourteenth president of The Explorers Club. For more on this extraordinary expedition, see: http://diglib1.amnh.org

**Biography**


The Explorers Journal
Images facing page clockwise from lower left: a young male Serval (*Leptailurus serval*) from Faradje; Azande Mapinga of Akenge with xylophones; a watercolor of a male *Mabuya perrotetii* from Faradje; “Babandra,” an Avungura from Bafuka’s village, has the reputation of having the best beard of all the Azande in this region; a Mangbetu holds a carved ivory horn in Okondo’s village. This page clockwise from lower left: L’Hoest’s or preussis monkey (*Cercopithecus lhoesti*) from Gamangui; a watercolor of *Xenopus fraseri* from Avakubi; a gray or common duiker (*Sylvicapra grimmia*) from Faradje; Mve, an Azande chief in his dancing costume with rattles on his feet in Bagbord’s territory near Yakuluku; an African bush pig (*Potamochoerus porcus*), Niapu.
Great Fish Owl from Avakubi; 7 figures carved in ivory from Medje; Maruka and one of his close relatives in camp at Faradje; mural painting on an Azande hut, representing an elephant hunt, from Faradje; two women, arranging the fine bands that are wound about their heads, from Okondo’s village; Blue or Sykes’ monkey (*Cercopithecus mitis*) from Akenge.

This page from lower left: Okondo’s chief medicine man with a tiny hut erected in memory of his dead parents where food and other articles are sometimes deposited; a watercolor of *Gnathorhynchus ibis* from Avakubi; Black-cheeked white-nosed monkey (*Cercopithecus ascanius*) from Rungu; an Azande woman from Medje sitting on a large stool—ring of hair and stool purchased from same woman; knives carved in ivory from Medje.
Images facing page clockwise from lower left: Mangbetu Magadi, son of Ebuda Mebigi Abienbali with a composite armchair, height, 171 cm, near Runge; a watercolor of *Corythaeca cristata*; female black Cercocebus with brownish shoulders from Akenge; a watercolor of *Anomalurus derbianus jacksoni* from Avakubi; red colobus monkey (*Procolobus badius*) from Bafuka; in Poko, an ivory worker, Sasa, brother of chief Gaitu, with his Makere wife and an Azande holding finished ivory horns, which are in the AMNH collection. This page clockwise from lower left: Akenge's wife, Nangama Bagbedi with woven hairpiece 47 cm in diameter; Mangbetu Abiemgama of Niangara striking cowbell-shaped flat gongs; a Mangbetu hut near Dankia's village with circular walls of leaves held down by lianas sewn fast to the stick structure; "Tumu," a young *Spizaetus coronatus* from Niapu; six Azande women from Faradje showing the manner of dressing; a watercolor of *Eugnathichthys macroterolepis*.

THE EXPLORERS JOURNAL
Images facing page clockwise from lower left: six Middle-African or four-toed hedgehogs (*Atelerix albiventris*) from Faradje; an Azande playing the flute in Manziga’s village, Niangara; an owl-faced or Hamlyn’s monkey (*Cercopithecus hamlyni*) in Stanleyville; small female shrew, total length 110 mm, from Medje; “Dengwana,” a Mangbetu woman from Rungu, daughter of Danka, with cranial deformation; a man with a large wine pot made by Makere women (height 105 cm, 73 cm in diameter), a small stool, a pot with syphon rod, and a pair of cups. This page clockwise from lower left: a giant ground pangolin (*Manis giganta*) in Poko; Mangbetu playing ivory horns and large wooden drums in Okondo’s village; two Azande women carry their children in pieces of skin from the waterbuck near Yakuluku; an Avungura playing a *mazza* (xylophone) beaten by four sticks with balls of rubber in Manziga’s village; an Azande gong of the Avungura, Kipate, near Nala.
The story of one of the most ambitious submersible expeditions in history began in 1997, during a social gathering en route to the North Pole aboard the nuclear-powered icebreaker Sovetsky Soyuz. Invited to the chief engineer’s cabin was a mix of the ship’s Russian officers and staff from Quark Expeditions, an ecotourism company that chartered icebreakers for polar voyages. The conversation turned to feats of exploration and the group decided that no one had ever actually gone to the “real” North Pole.

What exactly did this mean? Thousands of people—first explorers, then scientists and tourists—have walked on the ever-changing sea ice at the top of the world. But there is another, lesser known, North Pole. It lies deep beneath the gleaming ice cap on the dark and mysterious floor of the Arctic Ocean. As the decades passed, and other geographically notable places were explored, this “real” North Pole remained resolutely unreachable and unexplored.
Among those present on the Sovietsky Soyuz that night were two American ex-naval submariners, Don Walsh (HON’61) and Alfred S. McLaren (FE’71), along with Quark’s Australian founder, Mike McDowell (MI’97), who had recently sold the company. All were acquainted with deep-diving submarines and their thoughts quickly turned to how logistically feasible such a dive would be.

It would be difficult. Few places in the ocean were so inaccessible. The real North Pole is more than 4,000 meters (13,000 ft) down, on a vast abyssal plain immersed in eternal darkness and near freezing temperatures, and capped by a permanent layer of sea ice several meters thick. Could an expedition to such a place be mounted?

It could, concluded Walsh, McDowell, and McLaren. In 1997, as today, only five manned submersibles existed that could reach the North Pole abyss. Gaining access to one of them, transporting it to the pole, and deploying it safely beneath ice would be a formidable challenge. At that time, there was no operation willing to undertake such a hazardous expedition, let alone fund it.

Over the next decade, the idea evolved into a workable plan. The first step took place in late 1997 when Mike McDowell founded Deep Ocean Expeditions to explore opportunities for deep-diving submersibles among private-sector clients. McDowell used his Russian connections to secure a commercial partnership with the P.P. Shirshov Institute of Oceanology in Moscow, and their manned-submersible group led by Anatoly Sagalevitch (MED’98).

Sagalevitch, an accomplished and highly regarded scientist and submariner, was also one of the Mir’s designers and knew his subs’ capabilities intimately. Over the years, McDowell and Sagalevitch became close friends, and the Russian became the pivotal player in the group’s quest to dive to the pole.

In 1998, Sagalevitch and McDowell began an analysis of the North Pole expedition’s daunting surface and subsea logistics. The chief challenges were twofold: getting the Mirs to the pole, and ensuring that they could complete the dives safely in the uniquely harsh conditions found there.

An icebreaker would be needed to get the subs to 90°N, and the only option was to charter one of the large Russian Arktika-class vessels. Nuclear-powered, they were among the few ships that could reliably reach the pole. McDowell had worked with the ships during his Quark days, when 25 North Pole expeditions were carried out.

It soon became clear that the powerful icebreakers lacked an onboard crane strong enough to lift the Mirs in and out of the water at the North Pole. The team considered installing a crane specifically for the expedition, but the plan faltered when they learned that such a crane would be too heavy for the icebreaker’s deck.

Eventually McDowell and Sagalevitch concluded that the only viable option was to use two ships during the expedition—a nuclear icebreaker to clear a path to the pole and an icebreaking cargo ship equipped with a heavy crane and expansive hold to follow in its wake. Only by this arrangement could the Mir submersibles reach the pole.

The Mirs are exceptional extreme-depth submersibles. They can dive to 6,000 meters (20,000 ft) for up to 20 hours, and are among the most advanced and versatile deep-diving submarines in the world. The three occupants—one pilot and two observers—are housed in a pressurized hull, two meters in diameter. Composed of nickel-steel with three acrylic viewports, this mighty sphere can resist water pressures 600 times greater than that found at the surface. The Mirs have yet another advantage over other subs in that there are two of them—enabling enhanced operations and providing a far greater margin of safety.

However, no manned submersible had ever dived beneath ice before, raising some meaningful engineering questions, including how to cope with the Arctic climate and how to operate the subs away from their mother ship, the RV Akademik Keldysh, for the first time in their history.

The first priority was ensuring that the subs could return to the launch hole in the ice even if there was a systems failure. This would require all major systems to have back-up available. When the submersibles were finally configured for the North Pole dives, they looked conspicuously different from their usual egglike shape, with major additions such as an extra pair of lateral thrusters.

The events of 9/11 and their effects on the travel and expedition industry prevented a planned 2002 Mir expedition to the pole, and it began to look as though the project might wither on the vine. Then, in 2005, McDowell met Frederik Paulsen (FCI’02), a Swedish-German businessman and fellow polar enthusiast. The two hit it off, and Paulsen agreed to fund a significant proportion of the costs.
The first of two Mir submersibles is carefully lowered into the ice hole at 90°N to begin its journey to the real North Pole.
In 2007, another key player, Artur Chilingarov (FI’94), took over the organization of the expedition logistics. He was well positioned to bring the expedition together, being both a noted polar explorer and a prominent Russian politician. As President Putin’s representative for the International Polar Year and head of Russia’s Polar Foundation, he brought great respectability to the project.

On July 24, 2007, nearly a decade after the idea was conceived, the Arktika 2007 expedition departed Murmansk—Explorers Club Flag #42 aboard. The Murmansk Shipping Company supplied the icebreaker *Rossia*, a nuclear-powered, 75,000-hp behemoth. The polar research icebreaker RV *Akademik Fedorov* was supplied by the St. Petersburg-based Arctic Antarctic Research Institute.

During the expedition, the ships would travel in convoy, with *Fedorov* traveling in the path of broken ice created by *Rossia*. A Mi-8 cargo helicopter served as a scout and a shuttle between the two ships throughout the expedition. Aboard the *Fedorov* was a diverse team of scientists from various Russian marine science institutes, among them geologists, biologists, and physical oceanographers. To them, the expedition represented an unprecedented opportunity to learn about the abyssal environment in one of the least known places on Earth.

It took the convoy eight days to reach the North Pole, including a one-day stop near Franz Josef Land to test the submersibles systems before the big dive. During the test, dive pilots Anatoly Sagalevitch and Yevgeny Chernyaev took *Mir 1* and *Mir 2* down to a depth of about 1,300 meters (4,265 ft) to check that all systems were in order. As soon as the subs were back on the deck, the ships set course for the geographic North Pole. On board were nearly 350 Russian sailors, submariners, scientists, and associates, as well as a large contingent of Russian media and a small party of foreign participants.

On the evening of August 1, the pole was finally reached and a dive plan confirmed for 0800 ship
time the next day, weather permitting. The airborne scout spotted a small hole in the ice close to the pole. At 89°59.996 North it was close enough to make the dive objective reachable.

Early the next morning a crowd gathered in the frosty air to watch the sub launches. The atmosphere was tense as the submariners climbed into the hatches and were sealed in.

First to dive at 0530 GMT was Mir 1, piloted by Sagalevitch and accompanied by Chilingarov and fellow Russian parliamentarian Vladimir Gruzdev, another sponsor of the expedition. After a smooth launch, the submersible disappeared from view, descending into the dark abyss. Shortly afterwards, Mir 2 was carefully lowered into the water. Inside, Chernyaev piloted, accompanied by Paulsen and McDowell.

Navigation was the overriding concern: it was imperative that each sub maintain a constant awareness of its position relative to the ice hole. Ocean currents can push a submersible in unpredictable directions as it descends, and currents in different depth layers can move in opposing directions. To add another layer of complexity, the ice cap itself is in constant motion, moving relative to the currents below and the seafloor. The potential for lethal confusion was ever present.

To help maintain accurate navigation, a reverse transponder array was set up in a wide perimeter around the ice hole. The array comprised a series of acoustic beacons that “talk” to the sub, effectively telling it where it is by triangulation. Normally such arrays are placed on the seafloor, but in this case the requirement for accurate navigation was at the surface, and the transponders were hung 90 meters (295 ft) beneath the surface through holes drilled in the pack ice around the ship. Three transponders were deployed around the Fedorov, each about 800 meters (2,624 ft) away; a fourth was hung directly beneath the ship.

Inside both Mirs, the descent was going smoothly. Aboard Mir 2, nerves were settling after the excitement of the launch. At 30 meters (98 ft) per minute, the descent would take almost three
hours, so there was time to observe the water
column outside. McDowell asked pilot Chernyaev
to turn his exterior light on, to see myriad forms of
planktonic life as they passed his viewport. Clearly
the Arctic abyss was not devoid of life.

After a three-hour descent, Mir 1 arrived at a
tranquil scene. As expected, the seafloor was in-
deed flat, and composed of a fine clay of terrestrial
origin. The sub’s depth sounder registered 4,261
meters (13,976 ft). All systems were working fine,
so the Russian submersible began its task of col-
lecting samples and heading north to plant a sym-
bolic flag and time capsule. The seafloor sediment
was so fine that great clouds of grey would billow
at the slightest disturbance, requiring the finest of
touches on the thruster controls to avoid creating
a blinding smokescreen of mud.

About half an hour later, Mir 2 arrived on the
seafloor nearby, its depth recorded as 4,302 me-
ters (14,114 ft) by the pressure gauge. Powerful
lighting illuminated a world that had forever lain
in complete darkness. As with the landing site of
Mir 1, the mud was almost completely featureless,
and there were no rocks or human debris visible.
Burrowing sea anemones dotted the seafloor
and a few fish lazily over the ancient sedi-
ments, then dashed away as the sub approached.
With the help of manipulator arms, samples were
scooped up from the seafloor, including several of
the pretty anemones.

Two hours after Mir 2 reached the bottom, it was
time to return to the surface. Mir 1 was well on its
way to the surface when Mir 2 pilot Chernyaev be-
gan pumping water out of the ballast tank. As the
sub began to rise, the crew unpacked celebratory
lunches and drinks. Now the submariners allowed
themselves a few minutes of relaxation before the
difficult task of returning to the ice hole.

During the descent to the seafloor, currents had
pushed both Mirs hundreds of meters to the side
of the ice hole, and this distance was increased
to nearly a kilometer by the subs’ exploratory foray
over the bottom. Both pilots had to drive their Mirs
back toward the ice hole during the ascent.

Mir 1 returned to the surface without incident,
but the ascent was more difficult for Mir 2 because
the center transponder marking the location of the
ice hole fell strangely silent. At about 600 meters
(2,000 ft) Chernyaev slowed the ascent to a
crawl, and started assessing the navigational data
he was receiving from the other three transpon-
ders. He carefully turned his sub toward the point
where he calculated the hole to be, based on the
intermittent flow of information he was receiving.

Soon afterward, the navigation equipment on-
board the ship indicated that the sub was getting

Styrofoam coffee cups were
shrunk to the size of thimbles
by abyssal pressure during the
North Pole submersible dives.
close and this was confirmed when Chernyaev encountered a light beacon hanging 60 meters (200 ft) beneath the Fedorov. A whoop of joy punctuated the tense atmosphere inside the submersible as its ascent put it directly under the hull of the ship. With some final bursts of power from the thrusters, Mir 2 popped to the surface, almost directly beneath the crane’s waiting hook.

As the submersible was lowered gently onto Fedorov’s deck, everyone present—inside and outside—felt profound relief. The mission was a success. Climbing out into the afternoon sun and presented with champagne, the submariners of Mir 2 hugged each other and the crew from Mir 1. A decade-long dream had been realized.

A vast store of multidisciplinary data was collected during regular science stops to and from the pole as well as at the pole itself. Structural origins of the underlying seafloor, aspects of the water column hydrology, and sediment infauna were the particular emphasis. Science parties often left the ship to gather data on and below the ice and the RV Akademik Fedorov deployed remote samplers including CTD (Conductivity, Temperature, Depth) samplers, rosette water samplers, and benthic grabs from its winches. The submersibles themselves collected a range of hydrological, sedimentological, and biological samples and measurements. Additional geophysical work was conducted from the Rossia. It will take months before the scientific samples and geophysical data collected are published, but the impact of the expedition’s science results will be significant.

**EPILOGUE**

Upon the completion of the Arktika 2007 expedition, Russian President Vladimir Putin presented medals to the six explorers who were on board the Mirs, four of whom are members of The Explorers Club. Each received an inscribed plaque when they returned Flag #42 at the Explorers Club Annual Dinner on March 15, 2008. Anatoly Sagalevitch also received the Club’s William Beebe Award in recognition of his four decades of work with manned submersibles. Just before the dinner, the Club’s Board of Directors voted to retire flag #42, which will be displayed in the Lowell Thomas Building alongside the flags of other famous firsts. –DON WALSH

**BIOGRAPHY**

A New Zealand-based marine scientist, writer, and photographer, Peter Batson is the author of Deep New Zealand and Into the Deep and co-founder of the Deep Sea Photography agency (www.deepseaphotography.com). Australian adventurer and explorer Mike McDowell specializes in expedition logistics and private access to polar regions, the deep sea, and space.
EXTRA ME MEDICINE
your health and safety in the field

DR. NO TEETH
bush dentists
and other hazards of exploration

by MICHAEL J. MANYAK, M.D., FACS

ANYONE WHO HAS EXPERIENCED A DENTAL PROBLEM IN THE BUSH REALIZES THAT PLANNING FOR DENTAL CARE USUALLY GETS SCANT ATTENTION PRIOR TO DEPARTURE. WHETHER IT IS ORAL TRAUMA OR LOSS OF A FILLING, DENTAL EMERGENCIES OFTEN FIND US ILL-PREPARED. DENTISTS ARE A RARE LUXURY IN REMOTE AREAS OR SIMPLY UNAVAILABLE WHEN...
THE ABSCESSED TOOTH OF AN EXPEDITION MEMBER OR AN INDIGENOUS TRIBESMAN REQUIRES EXTRACTION. THIS WAS QUITE EVIDENT IN RURAL AFRICA, WHERE THE TEAM DENTIST, NAMED O’KEEFE, COULD ONLY PULL BAD TEETH. THE APPRECIATIVE NATIVES LAUGHINGLY CALLED HIM “DR. NO TEETH,” WHICH THEY FOUND EASIER TO PRONOUNCE.

DISSATISFIED WITH EXTRACTION AS THE ONLY CHOICE OF TREATMENT, WE CAUGHT UP WITH HARVARD DENTIST AND NOTED NARWHAL RESEARCHER, MARTIN NWEEIA, FN’99, FOR HIS TAKE ON ORAL HEALTH MANAGEMENT IN REMOTE AREAS.

MM: Martin, we both know that dental care is an afterthought at best for people leaving on an expedition. What are some of the common dental problems one can encounter in the field?

MN: A dental emergency can bring strong-willed explorers to their knees. The most common problems are cracked and broken teeth, oral infections, dental abscesses, and lacerations or trauma to the oral region.

MM: You explore remote areas of Greenland and Nunavut in Canada. Do you recommend pre-trip dental care for your colleagues or others on similarly remote expeditions?

MN: It’s a must. Prevention and knowing the risks before going on expedition is the single best advice for anyone traveling to a remote location. The whole idea is to avoid a problem, not wait for one to happen. A visit to the dentist six months before the trip is advisable to allow time for any treatment recommended.

MM: Carrying equipment into the field is always a tradeoff between necessity and space or weight. What practical suggestions about dental care items do you have for our explorers?

MN: The duration of the exploration, access to professional care, the skill to perform simple methods of treatment, and recognition of potential problems are the key factors in deciding what to bring. The more remote the location, especially if the field season is longer than six months, the more it is imperative to include a team person trained and equipped to treat serious infection and simple extractions. For expeditions under six months, basic dental training is recommended to repair minor tooth fractures and to treat infections for temporary relief until professional care is available. A minimum kit should contain a topical anesthetic, temporary dental filling, oil of clove, cotton balls, dental wax, and an antibiotic.

MM: Head trauma is not uncommon with falls or motor vehicle accidents. What are the key points to deal with trauma involving our teeth?

MN: Oral trauma needs to be treated in the field primarily through recognition of symptoms. Visible tooth fractures without exposure of a nerve or blood supply will be sensitive to cold and air but should not be sensitive to light percussion or tapping. These can be covered with a temporary material. Fractures below the gumline and into the bone will often be detected by a blood clot beneath the gum tissue. Such areas will also be sensitive to palpation. As with most serious blunt trauma, it is often what you don’t see that can be the worst part of the injury. It is important to document the circumstances of the incident causing the trauma.

MM: Nontraumatic dental pain can incapacitate someone. What are the most common causes and how do we deal with it on the road?

MN: The most common cause of nontraumatic pain is an acute abscess. The best prevention is for all team members to have a mandatory dental exam before leaving to resolve existing problems. If an abscess is suspected, start a ten-day course of penicillin, 500 mg, four times per day. For those with penicillin allergies, clindamycin is the drug of choice. For pain relief, use a local injection of marcaine or similar anesthetic followed by ibuprofen oral pain medication.

MM: What do you recommend for someone who loses a filling in the field?

MN: First the area should be cleaned, dried, and isolated using cotton rolls. A temporary paste of zinc oxide, eugenol (oil of clove), or other material should be applied to the area and allowed to set and dry. The surface needs to be smooth and the temporary material cannot interfere with the bite or impinge on an area of gum tissue. For the short term, sugarless gum or dental wax can be placed in the defect if there is no temporary filling.

MM: Martin, you have made a great case for putting some money where our mouth is for an expedition.
**RUSTIC BROWN BREAD**

**MAKES ONE 2 1/2 LB LOAF**

1. **STIR TOGETHER IN A LARGE BOWL OR POT:**
   - 3 1/4 CUPS WHOLE WHEAT FLOUR
   - 1/2 CUP DARK BROWN SUGAR
   - 1/2 CUP DRIED MILK OR BUTTERMILK
   - 3 TABLESPOONS WHEAT BRAN
   - 3 TABLESPOONS ROLLED OATS
   - 1 1/2 TEASPOONS BAKING POWDER
   - 1 TEASPOON BAKING SODA
   - 1/4 TEASPOON SALT

2. **STIR IN 1 1/2 CUPS WATER AND KNEAD VERY BRIEFLY IN THE BOWL TO FORM A ROUND LOAF AND PLACE IN AN OILED 8-INCH-DIAMETER OVERPROOF POT. CUT A DEEP CROSS IN THE TOP OF THE LOAF.**

3. **COVER THE POT AND PLACE IT IN THE PREHEATED SOLAR COOKER FOR 3 HOURS, OR UNTIL A TOOTHPICK INSERTED IN CENTER COMES OUT CLEAN.**

4. **LET COOL SLIGHTLY; SLICE THINLY TO SERVE.**

**BIOGRAPHY**

A California-based writer, Linda Frederick Yaffe is the author of *Backpack Gourmet*, *High Trail Cookery*, and the recently released *Solar Cooking for Home and Camp*. 
APPLE COFFEE CAKE

1. MIX TOGETHER TOPPING IN A SMALL CONTAINER AND SET ASIDE:
   • 1/4 CUP CHOPPED WALNUTS
   • 1/4 CUP DARK BROWN SUGAR
   • 2 TABLESPOONS BREAD OR CRACKER CRUMBS
   • 1 TABLESPOON WHOLE WHEAT FLOUR
   • 1 TABLESPOON TOASTED WHEAT GERM

2. BEAT TOGETHER IN A MEDIUM POT OR BOWL:
   • 2 EGGS
   • 1/4 CUP CANOLA OIL
   • 1/4 CUP WATER
   • 1/2 CUP UNBLEACHED WHITE FLOUR
   • 1 CUP DARK BROWN SUGAR
   • 1 TEASPOON VANILLA EXTRACT

3. STIR IN AND BEAT WELL:
   • 2 1/2 CUPS WHOLE WHEAT FLOUR
   • 1 CUP UNBLEACHED WHITE FLOUR
   • 2 TEASPOONS DRY MILK
   • 2 TEASPOONS BAKING POWDER
   • 1 TEASPOON BAKING SODA
   • 1 TEASPOON GROUND CINNAMON
   • 1 TEASPOON GROUND ALLSPICE
   • 1/2 TEASPOON GROUND CLOVES
   • DASH CAYENNE PEPPER

4. ADD AND STIR BRIEFLY:
   • 1 SMALL TART APPLE, PEELED AND DICED

5. POUR THE BATTER INTO AN OILED 8-INCH-DIAMETER ROUND OR SQUARE OVENPROOF POT. SPINKLE THE TOPPING EVENLY OVER THE BATTER.

6. COVER THE POT AND PLACE IN A PREHEATED SOLAR COOKER FOR 2 HOURS OR UNTIL A TOOTHPICK INSERTED IN CENTER COMES OUT CLEAN.

SPICE CAKE

1. BEAT TOGETHER IN A LARGE BOWL OR POT:
   • 2 EGGS
   • 1/4 CUP CANOLA OIL
   • 1/4 CUP WATER
   • 1 CUP DARK BROWN SUGAR
   • 1 TEASPOON MOLASSES

2. STIR IN AND BEAT WELL:
   • 1 1/4 CUPS WHOLE WHEAT FLOUR
   • 3 TABLESPOONS DRY MILK
   • 3 TEASPOONS BAKING POWDER
   • 1 TEASPOON BAKING SODA
   • 1 TEASPOON GROUND CINNAMON
   • 1 TEASPOON GROUND ALLSPICE
   • 1/2 TEASPOON GROUND CLOVES
   • DASH CAYENNE PEPPER

3. POUR THE BATTER INTO AN OILED 8-INCH-DIAMETER ROUND OR SQUARE OVENPROOF POT.

4. SPRINKLE EVENLY OVER THE BATTER:
   • 1/4 CUP ANY KIND OF COARSELY CHOPPED NUTS

5. COVER THE POT AND PLACE IT IN A PREHEATED SOLAR COOKER FOR 2 HOURS OR UNTIL A TOOTHPICK INSERTED IN CENTER COMES OUT CLEAN.
Ocean. This nearly 40-year-old story has new resonance in light of the northern melt, which is allowing access to valuable yet hitherto inaccessible resources. The scramble for emerging gas and mineral fields was highlighted by the recent drop, via submersible, of a Russian flag in the seabed at the North Pole (see page 46).

It is thanks to the pioneering work of McLaren, captain of the Queenfish, and his crew, that such feats are possible today. McLaren’s mission on the Queenfish was hazardous, requiring him to navigate unmapped waters under pack ice of unknown thickness, in a region where there could be no rescue.

At that time, America and the Soviet Union were in the throes of the Cold War. Compounding the risk of movement beneath the ice was the very real danger of being discovered by the Soviets.

The mission was so shrouded in secrecy that even today some aspects still remain classified. McLaren laments that he did not have a ROV (remotely operated vehicle) in 1970 to search for historic ships that might yet lie frozen on the sea floor. But it was all he could do to keep his own ship safe in the challenging environment. McLaren’s book is a welcome addition to the saga of polar exploration, which continues in the rapidly changing far north.

Unknown Waters: A First-Hand Account of the Historic Under-ice Survey of the Siberian Continental Shelf by USS Queenfish (SSN-651) is a compelling account of a secret 1970 mission to survey and map the Siberian continental shelf, a strategic yet remote region of the Arctic.

Unknown Waters
by Alfred S. McLaren

“The debonair shall inherit the Earth” is the prophecy of Laurel Blossom’s mother in pearls and red lipstick, but mostly in her cups. Described as a long poem, Degrees of Latitude is a meditation that takes the North Pole, temperate and intemperate zones, the equator, and the Arctic Circle, as metaphoric linchpins for personal experience. Here is Blossom’s life in double-spaced, straightforward degrees, as she merges with and diverges from her loved ones and characters with the desire/frustration of Frankie—“this is the we of me”—in Carson McCuller’s “Member of the Wedding.” Conjuring her reader through all manner of consciousness—muddle, and axis of all that mattered, and from macro thirty-five million years ago, ice began to form, to micro as she braided my hair—Blossom’s universe is many times tripped by soaring alcoholic transcendences that crash-land at the fate of the body. Yet her persona is intrepid, glamorous, resilient, and aware. After her coursings, she is happy to land—presumably in rural South Carolina—in the house where it rains every afternoon, where humidity hugs. Despite a most unfortunate cover—like a Mexican fire manual—this is a deeply luscious book.

—Karen Garthe, author of Frayed Escort, winner of the 2005 Colorado Prize for Poetry

Something terrible is happening in the climbing world. High Crimes, The Fate of Everest in the Age of Greed, by Hartford Courant reporter Michael Kodas, documents the shocking dark side of climbing today. Now the flanks of Everest are crowded with high-priced summit tours, leading poorly trained climbers. Lured by the money, as much as $65,000 per person, a spurious new breed of predators, hustling clients on and off the mountain. Basecamp is rife with fraud, prostitution, theft, and violence incubated in piles of high-priced gear and nurtured by ignorant or trusting tourists with lots of money. A single bottle of oxygen costs twice what a Nepali earns in a year and four times the money earned by a Tibetan. It is not only locals who prey on the unsuspecting but foreign climbers, who purposely arrive with little gear, intent on taking what they need from others.

Kodas’s examination of mountain crime is interwoven with the stories of two horrific expeditions. One is his own 2004 Connecticut Everest Expedition, which began with high hopes and friendship and ended in madness. A teammate was beaten unconscious by another, vital equipment was stolen or sabotaged, lives were threatened, and murderous intentions revealed themselves. The other is the tragic story of an unsuspecting client, Nils Antezana, who put his life in the hands of a self-styled guide, Gustavo Lisi, which ended when Lisi abandoned Antezana below the summit. Sadly it appears that the heroic mountaineering age passed away with Sir Edmund Hillary. Kodas’ book is a page-turner and a detective story overlaid with his sober analysis of the reality of Everest today.
Clare Pettitt’s intriguing examination of the historic 1871 handshake between journalist Henry Morton Stanley and missionary David Livingstone in Ujji near Lake Tanganyika in *Dr. Livingstone, I Presume*, Missionaries, Journalists, Explorers, and Empire shakes the pedestal these heroes have stood upon for nearly 150 years. Pettitt presents a portrait of Livingstone as a missionary who converted no one and as a man who led other missionaries following him to Africa to their doom. As a doctor, he ignored his long-suffering family, which trailed him across Africa, causing the death of his wife and several of his children. His real obsession was to beat out his rival explorers in discovering the source of the Nile. Stanley, on the other hand, lucked into a story when he ignored his boss and took off on a quest to find Livingstone, who, by the way, was not lost. His luck, she argues, was not in finding Livingstone but rather in the turning of that encounter into an industry, which he lived off for the rest of his life. Pettitt examines the process of myth-making and the forces that combined to make these men household names based on a chance meeting in a thicket.

Like Western Homeric epics, Amir Hamza travels widely, encountering emperors, princes, and kings; sly religious characters; lovely maidens; and dreaded supernaturals. Whether the stories are of love, longing, or loss, outwitting cunning villains, helping friends out of jams, or facing terrifying creatures, Amir Hamza eventually triumphs on his episodic journey throughout the Islamic world. While the hero Amir Hamza, around whom this fantastical epic swirls, was in real life the paternal uncle of the Prophet Mohammad, in this transformation he takes on a new persona as trickster, saviour, lover, and trusted friend. His persona is an amalgam of heroes from many cultures that were picked up as Islam spread across the Middle East and Asia. People living as far afield as Bali, China, Sudan, and Georgia have enjoyed and contributed to the Amir Hamza adventures.

This new translation is the work of four scholars, two of whom—Ghalib Lakhnavi and Abdullah Bilgrami—undertook to gather and translate myriad versions of the epic in the mid-1800s; the other two are contemporary scholars—Hamid Dabashi, professor of Persian studies at Columbia University, and Musharraf Ali Farooqi, an Urdu scholar. These stories are to be savored, and if possible read aloud, in the dark of night by the flickering flames of a desert bonfire.
“All of us can play a part in assuring the future of The Explorers Club and its support of education and exploration. My gift and bequest to The Legacy Society Endowment Fund is my way of saying I like what is being done.

Join us!” — George E. McCown, MN’88

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For information and to join us:
For eight years, wildlife photographer Steven Kazlowski tracked polar bears to create this splendid portrait of an animal in peril for *The Last Polar Bear: Facing the Truth of a Warming World*. This is a critical story because polar bears depend on the sea ice to navigate their world—when the sea ice goes, so go the polar bears.

Scientists have predicted that most polar bears will be gone in the wild within 40 years. Kazlowski’s gorgeous images are complemented by authoritative essays that discuss the political, biological, historical ecological, anthropological, and environmental issues that affect the polar bear.

Theodore Roosevelt IV, writing about the political aspects of climate change, notes that “the polar bear may just be the canary in the coal mine...attempting to save the polar bear from extinction we are investing in our own future as well.” Other contributors include Charles Wohlforth on polar bears; Nick Jans on the real price of oil; Richard Nelson on hunting; and *Newsweek* reporter Daniel Glick on the history of climate change. Frances Bienecke, president of the Natural Resources Defense Council, and Dan Glick end the book with an eloquent call to action. Kazlowski’s images and moving text show us why we must care about the far north and its denizens.

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**PREDATOR:**

**LIFE AND DEATH IN THE AFRICAN BUSH**

*by Mark Ross & David Reesor*


Biologist, safari guide, photographer, and pilot Mark Ross teamed up with a former client, photographer David Reesor, to document the top five African carnivores for *Predator Life and Death in the African Bush*. The daily lives of leopards, cheetahs, lions, hyenas, and crocodiles are presented through nearly 200 striking images.

The reflective commentary covering the biology, behavior, ecology, myths, and facts about these animals is culled from Ross’s 30 years living in the bush guiding safaris. He has been able to capture astonishing encounters such as a lion competing with four crocodiles for the carcass of a hippo just killed by the hooves of thousands of migrating wildebeests.

Throughout the book are highlighted tips for those planning a safari. In commenting on spotting a recent “kill,” the volume tells us that, “hyena dominance does not take the form of fighting as it does in lions, but by who can eat the fastest....” The tip continues to alert the observer to look for lions as they are attracted from miles away by the giggling and whooping of the excited hyenas. Most tips will enhance any excursion except perhaps the one about sneaking up on a crocodile. Each section concludes by debunking myths, giving tips on observing the animal in the wild, and providing various nature facts. The book also has an ingenious pocket fold-out grid with images and facts about the various predators and their prey.

Ross and Ressor’s images and observations of these magnificent beasts present a compelling argument for why we all must work to preserve this unique part of the world. If you plan to go on safari, this book is a must. If not, this volume is the next best thing.
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In 2004, Brian Binnie finessed Burt Rutan’s SpaceshipOne to an altitude of 112 kilometers, winning the $10 million Ansari X Prize. Binnie’s flight was the second leg of the prize, which mandated two private flights to space in the same vehicle within two weeks. The first, piloted by Mike Melvill five days earlier, was not without drama: the craft rolled 29 times. As a result of Binnie’s success, Richard Branson placed a $100 million order for five eight-passenger SpaceshipTwo craft for Virgin Galactic Airways to take tourists suborbital for $200,000 a pop.

JC: What were your thoughts as you left the atmosphere over Mojave?

BB: The priorities were: one, get to the required altitude of 100 kilometers; two, leave the atmosphere gracefully; three, beat the X-15 altitude record (354,200 feet); four, make a pillow-soft landing. The previous flight had demonstrated a dramatic rolling departure, and the perception was it was out of control. That was nonsense, but the perception was there. Branson was there ready to sign up for SS2 if we got it right. It was tough because the end of the boost phase is a delicate balance between the unpredictable behavior of a dying rocket motor and the wispy upper atmosphere, which affords little control over thrust asymmetries. [Because of the first flight’s problems] we literally had developed a new way to fly the vehicle over the weekend. That’s what I call high anxiety, but we experienced no rolls!

JC: So you did it—what’s the view?

BB: The photos may be inspiring but they don’t do it justice. The eye is more dynamic than any camera, and it is the icing on the cake to what is already sensory overload. When that rocket motor shuts down, you are rewarded with the holy trinity of space flight. The shuddering vibrations dissolve, the shrieking sounds are replaced with silence and all the tension of boost literally melts as your body experiences an instant aura of weightlessness. Everything at that point is wonderful—and then there is that view. There’s inky blackness in one direction. If you don’t like that, look out another window and there’s Mojave, the Pacific Ocean, the Sierra Nevada. Separating these two extreme vistas is a curved blue electric ribbon of light, the atmosphere. It’s pure magic. It almost makes you giggle.

More of Jim Clash’s columns and video shows can be found at www.forbes.com/adventurer.
From vast ocean depths to the frontiers of outer space, THE EXPLORERS JOURNAL offers first-hand reporting from those pushing the limits of knowledge and human endurance.

Founded in 1904 to promote exploration “by all means possible,” The Explorers Club is an international organization dedicated to the advancement of field exploration and scientific inquiry. Among our members are leading pioneers in oceanography, mountaineering, archaeology, and the planetary and environmental sciences.
DAVID DOUBLET
Marine naturalist and protector of the ocean habitat.
Author of a dozen books on the sea.
For 50 years, his passion has illuminated
the hidden depths of the Earth.

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