BEST OF MICRONESIA
RABAUL TO PALAU

MARCH 3 - 20, 2019
Today marked the first day of our voyage through Micronesia! We departed the Airways Hotel—where the Vue Restaurant’s delightful breakfast was only surpassed by the panoramic vista of the Owen Stanley Ranges—for Jacksons International Airport and our charter flight to Rabaul. Taking off just after 10:00 AM, we turned northeast, rose over the Owen Stanley Ranges (catching glimpses of Mount Victoria and the Kokoda Track out the aircraft’s port side windows), crossed the Bismarck Archipelago, and traced the south and east coast of New Britain before landing in Rabaul at 11:30.

Landing in Rabaul made us feel the expedition had really begun. Our flight was one of only two flights landing in Rabaul that day—the main terminal is one room with one luggage carousel and little else. We gathered our luggage and deposited it on the lorries headed for the ship before joining our buses and guides for an afternoon exploring Rabaul and its environs. Food is always an excellent point of entry for understanding new environments and new cultures, and lunch at the Ralum Country Club offered us a taste of traditional Papua New Guinean foods and local beverages such as PNG’s SP Lager and GoGo Cola. After lunch, we made our way to several of Rabaul’s most notable sites including the Japanese barge and personnel tunnels, built by the Japanese in WWII to camouflage and protect their transport/resupply barges and troops from Allied attack; the Chinese Cemetery, built in 1945 to memorialize three Chinese Nationalist soldiers; the Rabaul Volcanological Observatory, established to monitor the 14 active and 23 dormant volcanoes in Papua New Guinea after the 1937 eruption of Vulcan and Tavurvur which killed 507 people; and Rabaul Market, the main market in the old provincial capital.

Following our tour, we met the Caledonian Sky. After a bit of relaxation about our home for the next fortnight, we completed the mandatory (and always entertaining) safety drill. A group of people never looked as good in bulky orange life jackets as we did! After a buffet dinner, it was time to depart for the Baining Fire Dance.

A cultural highlight in Rabaul, the Baining Fire Dance is traditionally conducted to celebrate the birth of children, the initiation of young men into adulthood, the harvest, and the memorization of the dead. The men—traditionally women and children are not allowed to participate or to observe the dance—construct oversized masks of bark cloth, bamboo, and leaves representing the spirit world. The central palm fire is tended by the newly initiated young men. The all-night performance begins when the fire has sufficient embers and the dancers are suitably stimulated both on betel nut and on the chants and drumming of the older men. The masked-spirits appear from the trees, rhythmically dancing, kicking, and running in a trancelike state through a central blaze. It is quite a treat to see the dance so close up!

While the Baining men would dance the whole night through, we returned to the Caledonian Sky and set sail for a day at sea. Our voyage toward Kapingamarangi and the best of Micronesia had begun.
Thursday, March 7

At Sea

Following our first breakfast aboard the Caledonian Sky, we assembled in the lounge for an introductory welcome, a formal introduction of staff and ship amenities, and Zodiac briefing by our Expedition Leader, Brad Climpson. A relaxed schedule saw our first talk held mid-afternoon. In his lecture, Everything and All the World Became My Enemy: Japanese Imperial Expansion and the Emergence of the Second World War, our archaeologist Dr. Terence Christian gave an overview on Japanese occupation/colonization of Micronesia, the origins of the Second World War, the Japanese invasion of the Dutch East Indies and Melanesia, and the Allied offensives to retake the same.

An ice cream social provided a welcome interlude between the day’s lectures and an opportunity for guests and staff to meet and socialize before tomorrow’s first landing. Anthropologist Dr. Shirley Campbell, followed with her talk Micronesia: A Known Landscape by interpreting the Baining Fire Dance we had witnessed the previous night.

As this was our first full day on board, we were invited to join Captain Håkan Admarker at his welcome cocktail party on the Lido Deck and dinner in the restaurant. Most took the opportunity afforded by tomorrow’s afternoon landings and adjourned to the lounge at meal’s end to listen to Dong, our resident musician, entertain on the piano.

Friday, March 8

Kapingamarangi, Federated States of Micronesia

Today saw our first full day of expedition activities. In the morning, Stanford Professor Steve Palumbi, gave an overview of the Pacific world in his lecture How Did We Get Here? After lunch, we boarded Zodiacs for our first landing of the voyage, a five nautical mile run through the eastern half of Kapingamarangi Atoll. It was Touhou Island’s WWII-era concrete jetty that let us get our metaphorical feet wet via a literally dry landing. At the end of the jetty we were greeted, welcomed, and blessed by the local chief, son of the late king of Kapingamarangi. The chief invited us to see his village, enjoy a demonstration of traditional dance, observe traditional craft making, and explore the flora and fauna of the atoll. Following this welcome, we were introduced to Philomena, the acting mayor during the elected mayor’s trip to Pohnpei; all were ecstatic to meet the female acting mayor on this, International Women’s Day! After our welcome and blessing, we were treated to local dancing preformed by both men and women of all ages.

After dances concluded, we explored the two islands that form the main village. The cultural highlight was walking through the village streets and engaging with the locals while we searched for the shielded tropical gecko endemic to Micronesia. The core of Werua, located across an elongated concrete causeway from Touhou, is the village school. As with all villages we would visit, we presented the schoolmaster with books and school supplies on behalf of Learning Resources for Villages and Zegrahm Expeditions.

An outer wall drop-off greeted us on our first snorkel of the voyage. An excellent start, we were treated to whitecheek surgeonfish grazing on algae off the bare rock and swarms of anthias snatching plankton out of the water column. Especially fun to try and spot were the burrowing clams. Set well into the reef, it was only their often brightly-colored mantle which gave away their presence.

Meanwhile, Mike “Murf” Murphy and Tom Hiney took their divers on the outside of the reef for a checkout dive. The dive location was a beautiful wall with a shallow top to it, perfect for checking the divers’ buoyancy. A great dive to start the voyage!

At recap this evening, Jack provided a summary of some of the fish we had seen and some we would see in the days ahead; Terence gave an overview on Kapingamarangi’s WWII history, including the Medal of Honor action which occurred in skies and on the water of the lagoon; and Shirley introduced everyone to the stimulating effects of betel nut.
Saturday, March 9
Nukuoro Atoll

This morning we eased further into our expedition schedule, landing at the village of Nukuoro after breakfast. We were welcomed in spectacular fashion with a blast from conch shells by young men in traditional dress. Our landing on Nukuoro’s sandy beach saw a warm welcome from a choir of school children with ukulele accompaniment, fresh coconuts to drink, and local food to taste. After introductory speeches were made, we explored the village including the blue and white church and elementary school. Alongside our exploration of the village, was an opportunity to get up close both with WWII history and with the natural world.

Just down from our landing site we investigated a crashed Japanese A6M Zero in a shallow beach snorkel. The Zero was flown by Captain Tosiuki Hiachi and reportedly crashed in Nukuoro Atoll after running out of fuel while being chased by Allied aircraft. Captain Hiachi survived the ditching in the atoll and was rescued by the people of Nukuoro. Wanting to return to Japanese-controlled territory, he created an SOS signal on the beach from collected coral. American aircraft saw the signal and, unfortunately both for Captain Hiachi and for the people of Nukuoro, bombed the island. Captain Hiachi allegedly lived on the island for one to two years, fathering two to three children with a local woman, before making his way back to Japan.

The inner lagoon provided a very calm and very peaceful snorkel with plenty of marine life on display: blue-green chromis hovered about bright yellow finger coral, taking shelter among the arms at the first sign of danger; humbug dacyllus, with their zebra-like patterning, foraged on plankton; and ubiquitous brown and red sea cucumbers processed organic material off the surface of the bare rock.

Not missing out on exploring the lagoon, the divers departed from the village for their second dive of the voyage. Murf and Tom decided to dive on the more exposed outside of the reef after checking dive conditions on the inside of the atoll. Another stunning wall, the dive provided great visibility, some nice areas of coral, and a few whitetip and gray reef sharks.

In the afternoon, Jack spoke on *Reef Fishes of Micronesia* while Terence gave a preview of Pohnpei’s Nan Madol in *Monumental Architecture of Pre-contact Micronesia*. Between the afternoon lectures we were treated to delicious culinary creations by the captain and the chief engineer who expertly demonstrated, cooked, and shared original Swedish pancakes for all. After recap and dinner, Dong serenaded on the piano, took requests, and kindly entertained spontaneous karaoke in the lounge.
Sunday, March 10
Pohnpei Island

Today provided an opportunity to dry our snorkel and dive gear while enjoying a day ashore. Pohnpei, of which Kolonia is the capital of both the island and the state, was taken by Japan in the First World War and made part of their mandate territory by the League of Nations. Japan saw the strategic importance of Pohnpei and planned for its stout defense. However, Pohnpei was bypassed in the Allied island-hopping strategy of 1943-1945 and left isolated until the end of the war.

En route to Pohnpei, Steve gave us an insightful look at the ecology of coral reefs. His talk, Life on a Coral Reef, discussed the relationships between the inhabitants of corals and coral reefs; the causes and consequences of coral bleaching; and coral resistance, tolerance, survivability, and recovery in the face of sea temperature rise. After Steve’s talk, most were out on deck as we made our way into Kolonia through the spectacular reef and channel.

Coming alongside at Dekehtik Island, we made our way down the gangway to our waiting coaches and guides for the general, birding, and WWII history tours. In addition to their special points of interest, all tours made their way to the famed Nan Madol archaeological site. The name Nan Madol means “the spaces between” and reflects both the large intra-islet canals as well as the smaller covered passageways beneath the islets. The site is made up of 93 individual, human-made islands covering some 0.81 square kilometers. The megalithic core of Nan Madol was built in the 12th century by the Saudeleur Dynasty using stacked columnar basalt pillars. The Saudeleurs were a foreign people of unknown origin who arrived in Pohnpei somewhere between the 7th—9th centuries; their settlement in Pohnpei introduced a number of social, technological, and architectural transformations to the island. However, their reign suddenly ended in 1628 as a result of an invasion by Isokelekel, a demi-god also of unknown origin. Beyond its archaeological fame, Nan Madol is of literary import as it inspired H.P. Lovecraft’s R’lyeh, the sunken city home of Cthulhu.

As we made our way down the winding footpath through dense jungle and across makeshift bridges which seemed little used, the islets and basalt buildings of Nan Madol could be seen hiding in the foliage. Our focus was the largest structure, the royal tomb/temple of Nandauwas. Nandauwas is only accessible by ford or by boat as its canals and outer harbor still separate it from the other islets. Feeling ever so expeditionary, we forded the canal and made our way past the towering 26-foot-tall walls. Once inside the main gate, we explored the tree and fern-covered concentric pathways and main crypt. While the site’s history is enough to captivate, it is easy to see why its abandoned, mysterious, and seemingly unchanged ancient ruins inspired Lovecraft to make it his monster’s home.

In addition to Nan Madol, the WWII tour also took in artifacts from Japanese rule including a collection of Imperial Japanese Army type 95 Ha-Go light tanks. The birders had a similarly fruitful outing including a good sighting of the Caroline Islands fruit dove!

At recap this evening, our FSM customs agent, Manuel, introduced us to the origin myth, production method, and a tasting of sakau. Sakau (also called kava) is a culturally important drink in much of Polynesia, Melanesia, and Micronesia. The drink is made by chewing, pounding, or grinding the root of the kava plant and then mixing the pulped material with water. The result is a mildly sedative, slightly bitter drink which numbs the mouth and makes the drinker drowsy. It is often drunk in social settings and plays a central role in cultural or religious rites at all levels of society. While central to many Pacific cultures, it is safe to say the consensus was that the Caledonian Sky should probably hold off on permanently stocking the bar with sakau.
Monday, March 11
Oroluk Atoll

Oroluk Atoll is quite small both in size and population. Our planned shore excursion to meet its four inhabitants was made impossible by the extremely shallow tide and large interior reef. While Brad and Shirley were able to meet with three of Oroluk’s inhabitants to give them school supplies and snorkel equipment, the rest of us spent the day snorkeling and diving off shore.

Our snorkeling focused on exploring the outer reef and it did not disappoint! Amongst the coral, which was recovering from a recent bleaching event, we watched patrolling whitetip reef sharks, huge schools of paddletail snapper foraging at a cut into the center of the atoll, and crown-of-thorns sea stars feeding on the coral reef itself.

The divers did both the morning and afternoon dives on the outside of the reef as well. With perfect conditions and the healthiest reef we had seen yet, marine life was in abundance—sharks, turtles, and an eagle ray!

After returning to the ship and setting sail for Chuuk, we enjoyed afternoon tea and a lecture from Tom, *The Highs and Lows of the Intertidal Zone: Seashores of Micronesia.*
Tuesday, March 12
Chuuk Atoll

Our anchorage between Tonoas Island (historically called Dublon Island) and Etten Island excited our large contingent of World War II history enthusiasts as we were positioned immediately south of the main Japanese facility (Dublon Island), immediately north of the main Japanese airbase (Etten Island), and immediately west of the Imperial Japanese Navy’s Fourth Fleet anchorage. We were in the middle of the historical action just a little over one month after the 75th anniversary of Operation HAILSTONE!

Embarking our Zodiacs, we made our way toward the Japanese jetty near the now vanished Dublon Town (the Japanese colonial hub). Our ornithologist, Rommel Cruz, and the birders were the first to go ashore and managed to see a good collection including citrine white-eye, Caroline ground-dove, oceanic flycatcher, yellow bittern, Micronesian myzomela, and Micronesian starling. Unfortunately, the endemic Chuuk monarch proved elusive.

Following after the birders were the World War II and nature walk groups. Taking a roughly similar path, these groups explored a multitude of WWII sites including: colonial Japanese memorials, command and communications centers associated with Admiral Isoroku Yamamoto (one of the core operations planners for the attack on Pearl Harbor and commander-in-chief of the Imperial Japanese Navy’s Combined Fleet), the surviving ruins of the Japanese colonial hospital (built c1930), and the Japanese memorial to those killed in Operation HAILSTONE.

After lunch on board, we prepared for an afternoon afloat, exploring wreck sites from the February 17 and 18, 1944 operation. Led by our local guides, we departed the ship for the wreck sites—an overturned Japanese A6M Zero and the sunken Sutsuki/Patrol Boat 34. The Zero, being reclaimed by bouldering corals, was surrounded by an abundance of fish including yellowtail fang blennies and butterflyfish. Sutsuki was built in the 1920s as a Momi-class destroyer but was outdated by the start of the war. It was renamed Patrol Boat 34 and used in Chuuk’s perimeter defense after being damaged taking part in the Guadalcanal “Tokyo Express” resupply route. Patrol Boat 34, sunk as a result of Operation HAILSTONE, had some beautiful soft corals growing on its corroding sides. For the adventurous, the ship’s damaged deck, sides, and overhanging davits provided a second-to-none wreck freediving opportunity.

Though they missed out on the adventures ashore, what a fantastic day for the divers—two huge wrecks adorned with soft and hard corals! The first dive was on the 500-foot Heian Maru, the largest wreck in Chuuk Lagoon. It rests on its port side northwest of Tonoas Island. Echoing its wartime role resupplying submarines at sea, the wreck still had many spare parts in its holds including extra periscopes and torpedoes! The second dive explored the 436-foot Fujikawa Maru, widely considered the best dive site in Chuuk Lagoon. Sitting upright on the bottom, its exterior deck mounts an outdated 6” bow gun while the interior holds still contained A5M Claude and A6M Zero aircraft, assorted ammunition, and artifacts associated with its wartime service and crew. Like the Heian Maru, the Fujikawa Maru was sunk during Operation HAILSTONE.

Returning to the ship, Terence contextualized our day’s discoveries. His talk, entitled The Gibraltar of the Pacific: The 1944 Raid on Chuuk Lagoon and the Central Pacific Campaign, framed how the Japanese came to control the central Pacific, why they selected Chuuk as a major military installation, why the US decided to advance across the central Pacific, and the combat actions which nullified Chuuk’s military capability. Recap this evening was incredibly entertaining. Naturalist Sam Riley gave a fascinating look at sex change, hermaphroditism, and parthenogenesis in the animal kingdom with a special focus on lizards, skinks, and fish. A special treat was the comically presented explanation for the lack of salad greens and tomatoes on board by the chef and head of the hotel department! Their Laurel and Hardy-esque routine was highlighted by the presentation of the last, tiny tomato and lettuce leaf on board!
Wednesday, March 13  
Pulap Atoll

This morning, the deeper reef of Pulap Atoll allowed us to get ashore again. We wound our way through the reef channel, passed the low breaking waves, along the slow current near the shore, to a small landing spot protected by palms. The people of Pulap were a bit taken aback by our arrival. While they had expected us, they presently are cleaning and repairing the island after getting hit by a typhoon. They asked us to let them get ready and, in the meantime, to take in their island and village. This opportunity to see the island as its inhabitants began their day was a special treat, a look into normal life. After about an hour discovering the village's paths and people, we all reconvened in the main activity center for a formal welcome and demonstration of traditional dance. The women began the dances in their traditional style of seated performance. The men followed, entering the hall to the cheers and whistles of the women. Contrasting with the women, the men perform standing and kneeling. Not to be left out, many of the expedition staff and guests borrowed traditional attire and joined in! A presentation of school supplies and books was made at the conclusion of the performances, materials graciously accepted from a village trying to rebuild. Before we dispersed to enjoy the island further, we put on a rousing dance demonstration of our own as a thank you—the enthusiastic rendition of the “Hokey-Pokey” was quite a hit if also somewhat confusing to our hosts!

Over lunch and the course of the afternoon, a collection was raised for the people of Pulap to assist in their rebuilding efforts. This was delivered to them just before we departed along with our heartfelt thanks for opening their village to us during such a difficult time.

In the afternoon we returned to the reef channel we traversed on our way into Pulap. The sandy bottom was a pleasant change to the denser reefs we had experienced earlier in the voyage. The lagoon’s crystal-clear visibility, like swimming in an aquarium, and the gentle drift snorkel provided opportunity to observe a variety of fish species including juvenile leopard wrasse and surgeonfish broadcast spawning.

The divers similarly took to the water in the afternoon. Today’s dive may have revealed a reef with heavily damaged coral, but it also showed some positive recoveries including some healthy Porites, some regrowth of staghorn coral, and lots of mushroom corals. The marine diversity was better. There was good fish diversity, including an anemone fish guarding eggs, as well as very brief glimpses of a hawksbill and a green sea turtle.

After an afternoon on the water we listened to Shirley speak on traditional navigation. Her talk, *Wayfinding: Navigating the Pacific,* introduced us to the culture, mechanics, and renaissance of Pacific voyagers. At recap, Jack provided a summary of the marine life we had seen to date including Jack’s first juvenile oriental wrasse spotting, yellowtail fang blennies, blue damselfish, Pacific sailfin tang, and tunicates. Shirley then enlightened us about a rather unique Chuukese dating method—the love stick. In this practice, a young man carves and carries a stick unique to him. In order to ascertain whether a young lady is romantically interested in him, he sticks his carved stick through her house wall at night. The woman, recognizing the stick’s design, either pushes it back out (rejection) or pulls it into her house (acceptance).

Dinner this evening was a special affair in celebration of the crew’s dominant nationality. It was Filipino Dinner night! The hotel department staff put on a scrumptious taste of Filipino foods (including the classic bistek tagalog and kinilaw) accompanied by an equally fantastic recital of Filipino songs!
Thursday, March 14
Lamotrek Atoll

Expedition Day! Lamotrek provides a voyage into the unknown. It is a culturally important island with a geographic and a cultural relationship to nearby Elato and Satawal Islands (Satawal being an important island in the renaissance of traditional navigation). However, none of the staff or guests had been to Lamotrek before, so what flora and fauna the island supports and what kind of reception we would receive remained to be seen.

The approximately 400 people of Lamotrek did not disappoint! We took our Zodiacs through a narrow passage in the reef and made our way slowly along the coastline past anchored canoes to the village landing. It was requested we proceed slowly as the lagoon is considered sacred. Paul welcomed us to the island on behalf of the village chiefs and invited us to learn about Lamotrek’s traditional culture and crafts from those demonstrating their skills. The women demonstrated back-strap loom weaving of cotton lavalava, mat and basket weaving from palm leaves, and traditional foods. The men demonstrated rope making, fish trap construction, and canoe rigging. The men also took those who were interested on canoe rides in the lagoon, which provided both exhilarating and a unique perspective of life on an atoll.

In the afternoon, we returned to Lamotrek along the same leisurely route for some snorkeling along the vast reef. Instead of curling all the way around the beach as we had in the morning, we stayed just south of the village near the canoe anchorages we passed earlier in the day. Snorkeling from the beach permitted observation of a different type of marine environment. The sandy bottom and plentiful sea grass provided an ideal habitat for a variety of juvenile fish, giant sea cucumbers, and pennant butterfly fish. The residents of Lamotrek—adults and kids alike—met us on the beach for extended conversation and the kids joined us in the water!

The afternoon dive was similarly spectacular and took in a beautiful, steep grassy green covered slope. Scores of striking fish fluttered about including anemone fish, lionfish, and huge schools of anthias and chromis. Even a few octopi made an appearance.

Returning to the ship, we convened for Rich’s talk, *Drama Like Your Favorite Soap Opera: Competition, Adaptation, and Deception on the Reef*, in which he discussed camouflage and predation in marine life. At recap, Tom gave a look at the divers’ underwater explorations on the reefs and wrecks we had visited so far. Terence explained the significance and production method of tuba, a traditional, fermented coconut wine popular throughout Micronesia. Then Rich introduced and moderated a guest and staff forum in which we exchanged experiences of Lamotrek. Vincent Tafileluw (our on-board official from Yap State Government) finished recap with the captivating myth on Gaferut’s origins as the life-giving coconut crab.
Friday, March 15
Gaferut Island / At Sea

After a rocky evening and overnight making our way north, we arrived at Gaferut Island. Like Lamotrek Island, this island was new to most, but promised a variety of avian fauna and marine life to enjoy. Unfortunately, the weather was against us. After a valiant (and very rough and wet!) attempt to get scout Zodiacs ashore, the decision was made that the sea state was too rough to disembark and make a landing.

Instead, we opted to head west into smoother seas and use the sudden day at sea to allow more time at Ifalik Atoll. Before lunch, Steve spoke on coral, ocean, reef, and human sustainability using Professors Marston Bates and Donald Abbott’s 1959 observational study, *Ifaluk: Portrait of a Coral Island*, as his lecture frame; the text has special significance to our voyage as Professor Abbott taught at Stanford University his entire career. Steve stressed that ocean and climate warming, sea level rise, and sustainability is not just scientifically important, it is also very personal. Ifalik is only six feet above sea level and, like so many islands around the world, is being impacted by climate change in a very real, physical way. Concluding, Steve challenged everyone to a historical treasure hunt. Were the core cultural sites Bates and Abbott described 60 years ago still present?

After lunch, Terence discussed the current research theories, methods, and results in *Prisoner of War / Missing in Action (POW/MIA) Repatriation Archaeology*. Terence explained how POW/MIA repatriation work is extremely active in the area we are sailing as this region of the Pacific was at the center of the US military’s Central Pacific Campaign. In addition to going through the history of soldier accounting, graves recovery, and repatriation, Terence explained how volunteers and citizen scientists are greatly assisting in identifying the missing from past conflicts.

Afternoon tea was held between the talks—the variety of gâteaux, tartes, and bonbons made for a veritable patisserie and a gourmand’s delight.

Sugared and satiated, we were entertained by Murf’s captivating reminiscences of life as a *Roughy Toughy Deep Sea Diver*. His hilarious talk was a mix of the informative (how deep-sea diving has developed and what it is like to work at extreme depths), the personal (his own experiences over a long and varied diving career), and the humorous (such as playful seals, penguins, and a television shoot with the late Steve Irwin).

At recap, Sacha enlightened us on the importance of sea grasses—such as those seen during our afternoon snorkel at Lamotrek—to marine ecosystem health. Jack recounted the story of his own first visit to Ifalik decades ago, including practicing traditional fishing methods with the men and eating freshly extracted, pulsating tuna hearts! As well, Jack introduced us to the wild world of hallucinogenic and psychedelic fish. Shirley recounted two myths on island formation from Ulithi, Yap State, and Palau. The Ulithi myth tells of two Yapese sisters who caught a turtle, cooked it, and shared it with their family. The sisters were given the less desirable turtle fins. They went out the next day and caught another turtle, cooked it, shared it, and were given the same portions. One sister became angry about their lesser share. She took a coconut, her turtle fin, and some sand and angrily headed out to sea. She eventually found a spot she liked and spread out the sand to create an island. On this new sand she squeezed the coconut and from the juice sprouted new coconut trees. Inside the new vegetation, she buried her turtle fin and suddenly the island was full of turtles. Seeing the new, good land she had created extinguished her anger toward her home island, so she returned home.
Saturday, March 16
Ifalik Atoll

Ifalik is one of the most traditional villages in Micronesia. The atoll is formed from five islands with the now joined Ifalik Island (comprising the former Falarik and Falalap Islands) being both the largest and the only inhabited island with some 350 residents.

We landed at the village after making our way through the reef via a wide, scenic channel east of Ella Island (the second largest island). Greeted by song and escorted past the men’s house to the main village path, we were shown a display of women’s and men’s dances. The two gender groups were rather wonderfully arranged by age and height such that the line of performers had a pyramidal shape—the youngest dancer learning the traditional dances from the next oldest dancer. The men put on an especially varied and energetic performance presenting war and fishing dances as well as a commemorative dance which memorialized the hardships of the Second World War. After the dancing had concluded, we explored the village and observed demonstrations of rope making, pandanus fiber lavalava weaving on a back-strap loom, basket and mat weaving, and carving. In addition to the cultural demonstrations put on by the people of Ifalik, many guests sought out the eight locations Steve had highlighted in his Bates and Abbott-based Ifaluk Treasure Hunt. The men’s house was of special interest as it appeared unchanged since Bates and Abbott’s research in the 1950s. This morning, many of the village’s elder men gathered in the men’s house and offered conversation and tuba (fermented coconut wine) to anyone interested in trying the local tipple. After a little time to explore the island, the men of Ifalik launched a few of their traditional outrigger canoes (called wa) and took those who wished out for a sail in the lagoon. The men and boys of Ifalik also provided us a demonstration of how to right a capsized canoe and how they fish using a traditional, towed fish trap.

Following lunch aboard the ship, the afternoon provided opportunity for a leisurely snorkel from the beach to a tied-off platform. Big bouldering corals, butterflyfish, and wrasse were seen along with a bluestreak cleaner wrasse cleaning station. The children of Ifalik, like those of Lamotrek, were keen to join us in the water and had a fantastically fun time jumping off the snorkel platform, swimming alongside us, and pointing out various forms of marine life.

The divers completed a beautiful dive on a gentle, sloping reef. The wonderful visibility revealed great coral coverage with mushroom-like formations, several whitetip reef sharks, turtles, and even one sleeping tawny nurse shark!

We returned to the ship after a full day of cultural and natural exploration in time for afternoon tea. Rich expounded on competition, reproduction, and the development of marine life in his talk, Sex on and off the Beach: Reproduction and Raising Young in the Aquatic Realm. At recap, Terence explained the various functional and stylistic elements of steering and paddling canoe paddles and provided a tasting of tuba made by Ifalik’s elder men the day before. Sam followed with an explanation of the lifecycle and the importance of plankton and phytoplankton to reef and ocean ecology. Murf closed the night’s recap with a riotous comedy sketch on how to look good for Rich’s roving slideshow camera. Only two more days to make sure Rich gets your good angle!
Sunday, March 17
Sorol Atoll

Jack started our day with nature presenting on *Sanctuaries in the Sea and Why They Matter*. Enlightened by Jack’s talk, we prepared for a quick Zodiac ride across the open water and shallow reef to the white sandy beaches, picturesque palms, and avian-blackened sky of Piglemol. Enthralled by the hundreds of birds aloft, but careful where we walked so as to not disturb ground nesters, we surveyed masked, brown, and red-footed boobies; sooty and white terns; black and brown noddies; and frigatebirds. In addition to the throng of birds, we also saw coconut crabs; mangrove, Pacific blue-tailed, blue-tailed striped, and emerald tree skinks; and moray eels hunting crabs in the shallows. Though we saw turtle tracks, we could not determine if these were from green or hawksbill sea turtles; the former is likely.

Happy St. Patrick’s Day! Though the morning had been spent ashore, all day the *Caledonian Sky* had become increasingly green—and not from rough seas! Decorating the passageways, Lido Deck, and restaurant with green shamrocks and green balloons, the hotel department put on a St. Patrick’s Day themed lunch complete with carved roast beef, green rhubarb syllabub, and green beer. Sláinte!

The afternoon snorkel provided a different subsurface landscape to that of previous snorkels. The drop-off and ledges provided a great opportunity for freediving. While a green sea turtle and an unidentified ray were observed cruising in the shallows between the beach and the reef, it was the deeper blue and reef edge that provided the main show; big grouper and snapper were seen schooling while blue-streaked fusiliers changed color to red to attract friendly cleaner wrasse.

Like the snorkelers, the divers had an excellent dive which was unique to the voyage. Sorol’s reef provided an abundance of corals and amazing topography including lots of gullies, caverns, and overhangs to explore.

At recap, Steve directed an interactive review of results from the Ifalik treasure hunt. All but a handful of locations were found during the collective search. Tom explained the various ways scientists are working to save coral reefs including 3D printing coral attachments using calcium carbonate substrates, artificial intelligence and machine learning performing real-time coral species identification, and mangrove reforestation to stop sediment runoff. Jack concluded the night’s recap with meditations on our voyage and leading a rapturous staff and guest thank you applause for Brad, our cruise director Lynne Greig, and Patty Ponciano from Stanford Travel/Study.
Monday, March 18
Ngulu Atoll

Like Sorol Atoll the day prior, Ngulu Atoll marked the final inhabited atoll of the voyage. Ngulu is permanently inhabited by four people but, on our visit, the population temporarily ballooned to a total of seven as George Mangthaw’s (the caretaker) son and family had come from Yap for an extended visit. As we only had the morning to spend on Ngulu, we decided to make the most of it and start bright and early.

The Caledonian Sky anchored inside the atoll off Ngulu Island, and we were ashore by 8:30. Over the next hour-and-a-half we explored the historic, abandoned village and toured the well-maintained new village. The villages’ wide, manicured paths and Yapese style houses surrounded by thick palm groves looked very much the postcard image of the South Pacific. The inhabitants (especially the children) happily provided tours of the main village sites including the EU-funded radio/radar site where they shelter during typhoons. While touring the old and new villages, we kept our eyes peeled for any wildlife and were rewarded with good views of brown and black noddies, white terns, and even a green sea turtle returning to the water.

With a falling tide, we bid farewell to the inhabitants of Ngulu Island and made our way around the large western reef to our stunning snorkel site. This last snorkel took us well away from the village and saw us drop in on the outer wall of the barrier reef. The well-protected, deep walls offered a relaxed opportunity to examine the reef’s healthy coral growth and diverse assortment of marine life including green sea turtles, reef sharks, and eagle rays.

While everyone else was exploring Ngulu Island, meeting George and his family, and snorkeling the outer reef wall, Murf and Tom took the divers on their last dive of the voyage. It was a 10 out of 10! The gorgeous wall had 100% coral coverage with mainly hard coral to be seen interspersed with some soft coral areas. Along with spectacular coral, huge dogtooth tuna, amberjack, and one other unidentifiable species were seen cruising amongst the myriad schools of fish out in the deep blue. The highlight of the dive, though, were two amazing, large silvertip sharks. Ngulu Atoll, the best dive of the trip, was a great way to finish!

By lunch, we were back aboard and on our way to Koror, Republic of Palau. The afternoon was packed as Steve gave his final lecture, we returned snorkel equipment, and took the voyage group photo on the Panorama Deck. In the evening, we convened on the Lido Deck for Captain Håkan Admarker’s farewell cocktails—including a thank you to all of the hardworking crew and staff of the Caledonian Sky—followed by the Captain’s farewell dinner in the restaurant.

However, the day was not over. Our post-dinner entertainment was pure delight. In the lounge, Rich screened the voyage slideshow he had worked on since Day One in Rabaul much to everyone’s pleasure.
Tuesday, March 19
Koror, Republic of Palau / Disembark

This morning proved bittersweet as it was our last day aboard the **Caledonian Sky**. In total, we voyaged some 2,700+ nautical miles.

Cruising into Koror, we were greeted by a magnificent change in scenery; open ocean vistas gave way to the famed Rock Islands of Palau. The 445 coralline limestone formations—many ringed by stunningly clear turquoise water and coral reefs which support some 385 different coral species—were uplifted by volcanism before being eroded to their present mushroom shape by sea, weather, and vegetation.

After our breakfast cruise and docking at Koror, we disembarked for our day’s excursions. In what can only be described as the perfect relaxing outing, some of us explored the underwater world of the Rock Islands. You couldn’t help but smile as the boat zigzagged its way through the maze of limestone islands, the combination of blues and greens was just stunning. We swam among thousands of harmless photosynthetic jellyfish in the world-famous Jellyfish Lake, their undulating bodies brilliantly illuminated in the bright sunshine. We also explored an area with enormous giant clams and a huge diversity of fish in miniature. We devoured our bento box lunches at a picnic area behind a gorgeous beach, in the company of mangrove monitor lizards and a Micronesian megapode. The day was rounded out by a reef snorkel in an area with complete coral coverage and a quiet bay where we glopped silty mud all over ourselves before diving in to wash it off.

Those looking to explore Palau’s military history boarded boats for a day’s adventure exploring the World War II battlefield of Peleliu. Our visit coincided with the 75th anniversary of the Battle of Peleliu which was fought from September 15 through November 27, 1944. Led by our local guide, Des, we visited: the Peleliu WWII Memorial Museum (housed in the former Japanese Fuel Storage Bunker); invasion beach Orange 2 (where the 3rd Battalion, 5th Marines led the way); multiple American and Japanese memorials; Peleliu airfield; the eerie and ruined Japanese Air Headquarters Building; Thousand Man Cave; as well as numerous tank, amphibious vehicle, aircraft, and heavy gun emplacement wrecks. It was an incredibly sobering day in the hot Pacific sun as we attempted to imagine hills engulfed in conflict.

We then headed to the **Palau Royal Resort** with a few hours to freshen up and relax following our day in the sun. We reconvened at the Breeze Bar for cocktails, a sushi and grill buffet dinner, and a Palauan traditional cultural performance. As dinner wound down, we said our goodbyes and set plans to see both old and new friends on future voyages.

Fair winds and following seas until next our journeys cross.
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