

*Waimea*OCEAN FILM FESTIVAL

January 1-4, 2020 Waimea, Mauna Kea Resort + Fairmont Orchid, Hawai'i

January 5-8, 2020 Four Seasons Resort Hualālai



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About Our Area

Artwork by Christian Enns

The Island of Hawai'i, known as The Big Island to avoid confusion with the state, was formed by five volcanoes to became one land mass. The still active Kīlauea sits at the heart of Hawai'i Volcanoes National Park, while Mauna Kea, Mauna Loa and Hualālai rise about the Kohala and Kona coastline, where stark lava fields meet turquoise waters and multihued sand beaches. The gentle slopes of the Kohala Mountains, now volcanically extinct, provide the backdrop to the town of Waimea and to northern Hawi and Kapa'au.

The Kohala Coast is one of the driest regions in all of the Hawaiian Islands. It is an area rich in both Hawaiian history and sea life. Tropical fish, many of which are found nowhere else in

the world, inhabit these reefs, along with Hawaiian Hawksbill turtles. octopus, eel and smaller reef sharks. Spinner dolphins come to rest in shallow bays during the day, before returning to deeper water to hunt at night. Humpback whales can be seen along the coast during winter, when the ocean fills with the sound of their beautiful song.

The town of Waimea, also known as Kamuela, sits in the saddle between the dry and green sides of the island, nestled into the Kohala Mountains. The pastoral community is known as much for the paniolo culture the town was built around, as for the rainbows that reflect the ever-shifting weather patterns between rain, mist and sun.

About the Festival

USING THE PROGRAM

All film screenings, presentations and special events are listed by day and venue in the festival schedule. Each Breakfast Talk location is presented, along with its description, in the Breakfast Talk section of the program. Films are grouped with other films and/or speakers into film blocks, as shown in the schedule. When filmmakers will be present for discussion after the film; this is noted by "Q&A."

FESTIVAL HOSPITALITY DESK

The Festival Hospitality Desk is located in the lobby of the Kahilu Theatre during the Waimea portion of the event. The Festival Hospitality Desk is located in the foyer of the Ballroom when the festival moves to Four Seasons Resort Hualālai along with Hoku Amphitheater during the evenings. Passes and programs are available for pickup at the Festival Hospitality Desk starting 9 am-5 pm Dec 29 at Kahilu Theatre. Passes may be purchased at the desk, along with water bottles, cups, coffee mugs and tumblers. The Festival Hospitality Desk is available to answer questions and provide additional information as the festival progresses.

FESTIVAL HOSPITALITY DESK HOURS OF OPERATION AT KAHILU THEATRE

Sunday, Dec 29: 11 am-4 pm Monday, Dec 30: 9 am-5 pm Tuesday, Dec 31: 9 am-3 pm Wednesday, Jan 1: 9 am-9 pm Thursday, Jan 2: 9 am-9 pm Friday, Jan 3: 9 am-9 pm Saturday, Jan 4: 9 am-5 pm

HOURS OF OPERATION AT FOUR SEASONS BALLROOM FOYER

Saturday, Jan 4: 6 pm-8 pm Sunday, Jan 5: 9 am-9 pm Monday, Jan 6: 9 am-9 pm Tuesday, Jan 7: 9 am -9 pm Wednesday, Jan 8: 9 am -9 pm

THEATRE ENTRY

Remember to wear your passes. Festival volunteers will open doors for seating 15 minutes prior to each show. The theater will be cleared between screenings.

TBAS (TO BE ANNOUNCED)

A certain number of films will be screened as TBAs. This allows for adjustments in the schedule. The films most requested to be re-screened again will be shown as TBAs, along with a few films pending at publication. TBA schedules and special screenings will be posted at the Festival Hospitality Desk starting Friday, Jan 3. TBA schedules will also be posted simultaneously online and on Facebook. Please let our theatre volunteers know if you have a TBA request!

THE PASS SYSTEM

The pass system enables the festival to organize a dynamic event that includes films, speakers, presentations, Breakfast Talks and other activities, plus allows for rich and complex content, with one aspect woven together with the next.

Remaining seats will be opened for individual ticket purchase 15 minutes prior to each show. For more information on passes, please speak with the Hospitality Desk, visit the website at www.waimeaoceanfilm. org, or contact the Festival Office at 808-854-6095.

Letter from the Director

Welcome to the 2020 Waimea Ocean Film Festival. This year's festival offers an exciting lineup of award-winning films, dynamic guest speakers, special exhibits, important topics and inspiring stories. In honor of our 10th year, we are bringing back and sharing a number of films as Festival Favorites – films we've heard about from you over the years and films that help share the festival story. We hope you enjoy!



The festival began through the realization of what the dual-impacts of climate change and ocean acidification would mean for our children. Through 2019, we've continued to see what half of that equation—climate change—would mean.

What you would expect to see in a warming climate would be more unpredictable and unusual weather patterns; more intensive and destructive storms; more extremes in conditions; more unseasonable conditions; more and stronger hurricanes; more periods of flooding; more periods of drought; more periods of extreme heat; more periods of extreme cold; larger and more destructive fires; and, more wind. Ultimately, this will result in difficulty sustaining agricultural production and an unpredictable water cycle, along with all things that would come with disruptions in food and water supply.

The perfect, steady amount of carbon dioxide (CO2) in the atmosphere over the past 10,000 years allowed for the development of agriculture and civilization, and the resulting human population growth; from a few million individuals then—prompting early migrations outward—to seven billion now. This perfect amount of CO2 maintained a stable climate, with a degree of storm events and variation that was largely manageable, around which we could plan, and through which we could rely on agriculture as a basis for our subsistence, our economy and our way of life.

By disrupting this stable climate system, we are changing the predictable patterns of rainfall and climate we have relied on to grow food, for reliable sources of fresh water and for a sense of security in the places we live. The implications for the economy, let alone our lives, are profound.

To understand global warming—and resulting climate change—it is important to understand that approximately one-third of the CO2 we release through combustion enters the atmosphere; approximately one-third is absorbed by the ocean; and approximately one-third is taken up by trees. Every molecule of CO2, or other greenhouse gas we add to the atmosphere, re-radiates heat back to earth. You might envision each molecule of CO2 as a ping-pong paddle. With more CO2 in the atmosphere re-radiating or bouncing heat back, both earth and ocean temperatures are warming, and the climate is changing.

At the same time, the excess CO2 being absorbed by the ocean is causing the acidity of the ocean to change at a rapid rate. Because increasing acidity dissolves the skeletal structures of organisms at the bottom of the food chain, this second threat—now known as ocean acidification—could potentially have a devastating impact on the entire ocean ecosystem; just as we start to have trouble growing food on land.

Unfortunately, at a time when we most need to be working together towards a common goal—we stand divided, polarized and manipulated from without and within.

In the absence of political leadership on this issue—with leaders in both parties working together to find balanced solutions, it may be left to businesses, and states, to forge the way ahead.

Letter from the Director

Through the years, we've shown films that have given homage to the brave men and women who gave or risked their lives in defense of the nation. These are individuals who chose, and continue to choose, to step into the line of fire on our behalf. None of what we need to do to face climate change requires that we make a similar choice. In fact, everything we could do to address climate change is positive—positive for our economy, positive for our country, positive in terms of job creation and positive in terms of what it would mean for our daily lives.

To tackle the problem quickly, it is helpful to note that nearly one-half of the energy we consume in this country is actually used by buildings. The energy requirements of a building can be reduced 70 to 80% simply through good design. Day-lit, well-designed buildings are pleasant and productive places to live and work plus have the added benefit of lower energy bills. It is estimated that most buildings in the nation will need to be re-built to some degree within the next 30 years, providing opportunities for retrofit; new buildings could be built to LEED standards.

Solar and wind production present an opportunity on a global scale to fill in the rest. Big box and other roof top space could be utilized as primary solar energy production sites; perhaps leased by utilities or municipalities to maintain the traditional grid. To speed implementation, utilities could own the panels they install, with residents still paying a monthly utility bill. This would allow utilities to bring additional power to the grid at a substantially lower cost than development of new generation plants; perhaps using pumped water systems for storage.

Because solar is more efficient than extracting and processing coal or oil—and thus inherently less expensive once subsidies are internalized and economy of scale achieved—and because it is significantly simpler than building exorbitantly expensive and problematic nuclear power plants; investment in solar will also yield long-term cost reductions for both rate and tax payer.

Windmill manufacturing plants can be built in coal-mining towns, creating good, above-ground jobs for these communities; or solar arrays built in denuded areas on warehouse rooftop space. Energy companies are perhaps best positioned overall to jump into the solar race early, to maximize gains.

Transportation accounts for roughly 29 percent of energy consumed in this nation, over half of which is in the shipment of goods and materials. Solving transportation issues—developing good transportation options and reducing transportation costs—involves a shift to systems thinking with high-speed rail, light rail, transit, roadways and bicycle and pedestrian systems integrated into a network.

A multi-modal transportation system based around rail is the most efficient—and hence ultimately least expensive—transportation system to build and maintain. People love to walk, ride their bicycles and take the train. Communities with good multi-modal transportation systems tend to be highly desirable places to live and work.

While adding rail to an existing high-density urban landscape is challenging—rather than building around a multi-modal system to start—doing so at any time saves resources in the end, given the efficiency in rail; that the same number of people can travel in one rail line as in eight-to-12 lanes of traffic. The implications of this are important to understand. This efficiency in rail allows a shift from ever-widening

roadway systems and parking lots to parks, bike paths, open space, sidewalk cafes and real estate. It allows an area to retain a personal, small-town feel as it grows and a city to retain its vibrant core.

Rail also brings significant tax payer savings relative to the tax payer burden of maintaining ever-expanding roadways—estimated at \$4,500 per car per year in 1989 dollars. It allows families to reduce the number of cars owned. Each car owned is estimated to be worth around \$100,000 in mortgage; savings that can be put into the purchase of a home. And, rail can run virtually free of carbon emissions and other pollutants. Electric cars, buses, machinery and trucks, including in-house fleets and machinery, will be an important part of the system. But, electric cars on their own do not solve transportation, land use and carbon emissions issues; roadways themselves are too carbon intensive to build and maintain.

Working to protect forests, and particularly remaining rainforest—and to re-plant and re-forest where we can—will be crucial as we work on the rest, to help sequester carbon. As will addressing issues in education and communication.

Our democracy was predicated on the understanding that a well-educated citizenry is fundamental to the functioning of a democracy. To resolve the larger issues, it is important that we also tend to the core in ensuring that all Americans have access to a good education, including a solid foundation in history, science and literature. In a world of emerging tech and social media, the importance of understanding history, like the lessons of Versailles, are perhaps more important now than ever before.

Social media further leaves to schools the task of acting as counterweight and balance. By providing a solid education in core subjects—taught by educators—schools develop good listening habits along with the essential skill of learning how to listen to and learn from teachers, mentors and others with experience. Schools also teach students how to learn about topics that are important—but not necessarily of personal interest; to re-focus attention on the broader world outside of self and beyond the phone. And, to think. These are vital skills in the work place and in society, rooted through years of study, and listening, at school. With these skills, and a solid educational foundation, most of the rest can be learned on the job.

Our founding fathers also understood the importance of a free press to a democracy. Until 1979, broadcast news was regulated as a service to the American people. It could be that we need to return broadcast news to a not-for-profit arm of the networks: entrusted with the task and duty of informing the nation.

We live in a time when it is vital that we come together—like 'The Greatest Generation' before us— to address the issues we face, both as they impact the ocean and as we experience them on land. The issues we face are daunting, if we admit them. The opportunities within them are boundless. The obstacle is the way. To find our way through, we must work towards solutions, while we can.

Thank you to everyone who makes the festival possible. The films, speakers, talks and exhibits throughout the festival are not-to-be-missed. Many touch on important topics, while others are purely meant for inspiration and fun. Start early, to see as much as you can. We hope you enjoy.

Mahalo nui.

Tania Howard
Founder and Director

Host Venues

WAIMEA Kahilu Theatre

A historic, 490-seat theatre in the center of Waimea town, Kahilu Theatre will host the Festival's Hospitality Desk and film screenings. Inquire at the Festival Hospitality Desk at Kahilu Theatre with questions.

Hawai'i Preparatory Academy (HPA) -Gates Performing Arts Center

The Gates Performing Arts Center (HPA Gates) is a 360-seat theatre, located in the heart of the upper HPA campus, about two miles west of town. HPA Gates will host film screenings and presentations.

Parker School Theatre

Originally built in 1920 on Parker Ranch as an entertainment center for ranch residents and workers, Parker Theatre has been renovated over the decades and seats 280. Still maintaining its original charm, Parker Theatre is within walking distance of Kahilu Theatre. It is suggested attendees walk between the two. Parker Theatre will host film screenings.

Anna Ranch Heritage Center

Listed on both the National and State Registers of Historic Places, the ranch was purchased in 1848 by Englishman James Fay and his Hawaiian wife Ka'ipukai, and was in the same ranching family for five generations. Visitors may tour the spectacular and expansive gardens as well as the 14-room, historic ranch house with a treasure trove of Hawaiian koa furnishings, artifacts and

fine millinery. Anna Ranch will host morning Breakfast Talks 8:15- 9:15 am Jan 2 and Jan 3, with coffee and light fare provided.

KOHALA COAST

Mauna Kea Beach Hotel

Breakfast Talks are scheduled at the Mauna Kea Beach Hotel 8:15-9:15 am Jan 2-4 in the Garden Room, with coffee and light fare provided. A sunrise yoga class is available to Festival Pass holders 7-8 am Jan 2-4 on the lawn by the lu'au grounds during this same period. Festival artist Christian Enns will paint en plein air at the beach 8 am-11 am Jan 2-4 where attendees can observe as Enns works on a large-scale oil painting.

Anna Ranch Heritage Center. Photo © Josh Fletcher





The Fairmont Orchid, Hawai'i

The Fairmont Orchid, Hawai'i hosts film showings and presentations in its own Lehua Theater, as well as exhibits and presentations in the adjoining downstairs ballrooms.

Directions to the Fairmont Orchid, Hawai'i from Waimea:

- Drive approximately 11 miles down Kawaihae Road (Highway 19), until you reach the T-intersection on your left, where the road heads to Kona. Turn left to continue on Highway 19. You are now traveling south, parallel to the ocean on your right.
- Continue approximately seven miles, past the Mauna Kea Beach Hotel entrance, until you see the Mauna Lani Resort sign on your right before a tall coconut grove entry road.

- Turn right onto Mauna Lani Drive.
 Proceed past the Guard House to the traffic circle and take the first right to the Fairmont Orchid on North Kaniku Drive.
- Stay on North Kaniku Drive until you reach the main entrance to the Fairmont Orchid at the end of the drive, less than a mile. Valet and selfparking available.

FOUR SEASONS

Four Seasons Resort Hualālai will host the Festival's Hospitality Desk, film screenings and presentations
Jan 4-8. Breakfast Talks are scheduled upstairs at 'Ulu Restaurant 8:30-9:30 am Jan 5-8, with coffee and pastries provided. Contact the Festival Hospitality Desk with questions.



Seven Worlds, One Planet

"Adult king penguins must head out to sea to collect food for their chicks. I watched this group walk to these rocks, and then hesitate getting into the cold water for 10 minutes. Eventually one was pushed in."

-Fredi Devas/BBC

BBC's Seven Worlds, One Planet presented by Sir David Attenborough, examines each of the seven continents and reveals how each distinct continent has shaped the unique animal life found there. The series celebrates the diversity of life on each continent, but also features the challenges faced by animals in a modern, human world.

Antarctica is the coldest, windiest, most hostile continent. From huge colonies of king penguins, working tirelessly and in tandem to feed their chicks; to the large and stately emperor penguins; to fast-swimming gentoo penguins; to four-ton elephant seals; to fledgling albatross weathering a storm; to Weddell seals and their pups, Seven Worlds, One Planet: Antarctica shares the story of life here in stunning detail.



A gentoo penguin gets ready to go out to sea. Photo Credit: Jonny Keeling. Photo © BBC America and

BBC's Seven Worlds, One Planet: Antarctica Number of days filming: 236.

Number of days to reach Bird Island: 11 days sailing through The Drake Passage, the roughest sea in the world, in a boat that was 54 feet long. Filming Locations and Species 1. McMurdo Station Antarctica: Weddell Seal. 2. St. Andrew's Bay, South Georgia: King Penguin. 3. St. Andrew's Bay, South Georgia: Elephant Seal. 4. South Shetland Islands, Antarctica: Humpback Whales and Krill Bait Ball. 5. South Georgia and Bird Island: Albatross. 6. Cierva Cove, Antarctica: Gentoo Penguin, Orca and Leopard Seal. 7. McMurdo Station, Antarctica: Under the Ice Narnia. 8. New Zealand Islands: Southern Right Whale. 9. Elephant Island, Antarctica: Peninsula Whale.



APOLLO 11: THE UNTOLD STORY

Tom Whitter (UK, 52 min)

HAWAI'I PREMIERE

In person: Anthony Geffen

With his words "One small step for man, one giant leap for mankind," Neil Armstrong brought the triumph of the first walk on the moon into the hearts and minds of people all over the world. With actual footage and live interviews, Atlantic Production's Apollo 11: The Untold Story brings the story behind-the-scenes to life, including how narrowly the mission hung on a thread the entire journey back.



THE BAT MAN OF MEXICO

Tom Mustill (UK, 60 min)
In person: Tom Mustill
FESTIVAL FAVORITES

Narrated by David Attenborough, *The Bat Man of Mexico* follows Mexican biologist Dr. Rodrigo Medellin as he tracks endangered "Tequila" bats on their 1,000-mile migration to the U.S. border, where they pollinate the tequila agave plants. Through his work, the bats become the first animal in Mexico to be removed from the endangered species list.



AROUND THE WORLD IN 80 DAYS

Sven Harding (UK, South Africa, 94 min)
USA PREMIERE

Cyclist Mark Beaumont set himself a new challenge—to circumnavigate the globe in under 80 days on a bicycle. Covering the 18,000-mile distance would require riding over 16 hours a day, day after day for over two-and-a-half months. It would mean cycling through harsh conditions and continuing on through sheer determination, via a route set to begin and end at the *Arc de Triomphe*.



BEHIND THE LINES

Mikey Corker (UK, 40 min)
FESTIVAL FAVORITES

Commissioned as a six-part series for Epic TV, *Behind the Lines* follows British big wave surfer Andrew Cotton during the historic 2013 season, when a succession of massive swells hit the European coast. Mild-mannered, a lifeguard, a plumber by trade and father, Andrew Cotton also chases the goal of setting a new world record for the biggest wave yet surfed.



AUDUBON: JOHN JAMES AUDUBON AND THE BIRDS OF AMERICA

Al Reinert (USA, 91 min)
FESTIVAL FAVORITES

Audubon is the story of a rare man and the birds that captivated him. His work influenced the great thinkers and conservationists that came after him—from Thoreau to Teddy Roosevelt—and helped to preserve some of the wild lands he explored and documented. Audubon's legacy is as timeless

and vital as the art he created; art that provides a

THE BIG WAVE PROJECT

Tim Bonython (Australia, 98 min)

FESTIVAL FAVORITES

Following some of the world's top big wave surfers, *The Big Wave Project* shares the history of the sport as it develops through tow-in surfing to a return to the simple art of paddling into giant waves. The film captures the moment as the largest swell season in 30 years arrives; and the world's top big wave surfers paddle and tow-in to enormous waves.

capsule in time of the natural world.



THE BIRTH OF SAKÉ Erik Shirai (USA, 93 min) FESTIVAL FAVORITES

With exquisite imagery, *The Birth of Saké* tells the story of making saké in the traditional way at Yoshida Brewery—a 144-year-old family-owned, small brewery in northern Japan. Here, a group of workers live and work for six months each year, under the direction of the brew master and the brewery's sixth-generation heir, to uphold the 2,000-year-old tradition. *With subtitles*.



BOB AND MARION

Amanda Bluglass (UK, 5 min)

USA PREMIERE

When Bob Luker decided to try his first distance run after turning 40, he caught the running bug, as did his wife Marion. Half a lifetime later, they've run more marathons and ultrathons than they can remember. "It's the agony and the ecstasy," reflects Marion. Bob calculates he's run the equivalent of twice round the world at the equator. "I'm still running. Beat that!"



CHASING THE SUBLIME

Amanda Bluglass (UK, 7 min)

HAWAI'I PREMIERE

What drives us to get too cold and too tired, to battle with fear, in the name of adventure? With these questions, *Chasing the Sublime* follows the founders of The Outdoor Swimming Society, Kate Rew and Kari Furre, in a poetic glimpse into the pursuit of cold-water swimming in the icy lochs and lakes of Britain.



COWBOYS AND SCIENTISTS

Eric Bendick (USA, 8 min)

HAWAI'I PREMIERE

In person: Eric Bendick

Thirty years ago, a partnership between Archbold Biological Station and Buck Island Ranch inspired a new mission in having cowboys and scientists work together in the advancement of science on a 10,000-acre working cattle ranch. The collaboration has led to important discoveries and begun to reshape our conceptions about agriculture, sustainability and conservation.



DANNY DAY CARE

Stu Thomson (UK, 4 min)

In his latest film, Danny MacAskill offers to watch his friends' toddler, so they can enjoy a little time out. It's not long before he has her out on a bit of a bike ride. Filmmaker note: no children were involved in any stunts during the making of this film or with anything that didn't involve being firmly on the ground.



DANNY MACASKILL'S WEE DAY OUT

Stu Thomson (UK, 6 min)

FESTIVAL FAVORITES

Danny MacAskill's Wee Day Out sets out as a simple ride around the Scottish countryside. Just don't try this at home. While humming a tune, MacAskill performs jaw-dropping feats on a mountain bike, one after another in short succession. He leaps, hops, flips, hay-rides, rolls, waves, smiles and makes it back to the train on time—all on the big screen.



DAVID ATTENBOROUGH'S GREAT BARRIER **REEF - BUILDERS**

Mike Davis, Anne Sommerfield (UK, 52 min) **FESTIVAL FAVORITES**

David Attenborough returns to his favorite place—the Great Barrier Reef. In vivid detail, he shares what is known about the creatures who live there—including the tiny coral animals that form the reef and create this vast and complex underwater structure. The reef provides a critical home and breeding ground for thousands of species, making it vitally important to the health of the ocean.



DISNEYNATURE'S PENGUINS

Alastair Fothergill, Jeff Wilson (USA, 76 min) Disneynature's *Penguins* is a coming-of-age story about a very humorous Adélie penguin named Steve who follows a steady line of fellow males in the icy Antarctic spring on a quest to build a suitable nest, find a life partner and start a family. None of it comes easily for him, not even building a nest, especially when every other guy is happy to steal his rocks.



DISTANCE BETWEEN DREAMS

Rob Bruce (USA, 62 min)

FESTIVAL FAVORITES

Distance Between Dreams shares an inside look into the intense training program big wave surfer lan Walsh undergoes, along with other considerations involved in surfing a wave like Jaws. With huge swells building, Walsh and brothers Shaun, D.K. and Luke work together to surf the next biggest waveby paddling in-along with John John Florence, Greg Long and Shane Dorian.



DIVING DEEP: THE LIFE AND TIMES OF MIKE DEGRUY

Mimi Armstrong deGruy (USA, 83 min) HAWAI'I PREMIERE

In person: Mimi Armstrong deGruy Water, and the ocean, provided a neverending source of inspiration for Mike deGruy. A pioneering ocean explorer, Olympic diver, ocean cinematographer and charismatic ocean spokesperson, deGruy brought unbridled joy and excitement to his work.



DOUG TOMPKINS: WILD LEGACY

James Q Martin, Chris Cresci (USA, 16 min) HAWAI'I PREMIERE

Douglas Tompkins was world-renown as adventurer, entrepreneur and conservationist. He was also founder of The North Face—following a fabled expedition to Patagonia with climbing partner Yvon Chouinard—and cofounder of Esprit. Alongside wife Kristine McDivitt, Tompkins helped protect 4.75 million acres of natural landscape in Chile and Argentina including five new national parks.



DUKE KAHANAMOKU: HAWAI'I'S SOUL

Phil Arnone (USA, 48 min) **FESTIVAL FAVORITES**

In person: Phil Arnone

Duke Kahanamoku: Hawai'i's Soul charts the life of legendary waterman Duke Kahanamoku, as told through candid interviews with those who knew him. From his early life growing up in Waikiki, to his international renown as surfer and five-time Olympic swimming medalist, to his official role as Ambassador of Aloha, Duke continues to be an inspiration today.



E2-LONDON: THE PRICE OF TRAFFIC

Tad Fettig (USA, 26 min)

FESTIVAL FAVORITES

Under the direction and leadership of visionary former Deputy Mayor Nicky Gavron, and utilizing the economic principles of demand management, the City of London underwent a transformation during the 2000s, becoming a model of rail service, transit efficiency, pedestrian-friendly access and public space. It became, in short, a great city to live, work and play in.



ENTRE LES LIGNES/BETWEEN THE LINES

Thomas Guerrin and Pierre Cadot

(France, 28 min)

HAWAI'I PREMIERE

Entre les Lignes shares the story of Vivian Bruchez's quest to find new lines in the Mont Blanc range outside of Chamonix. With mountaineering and ski partners Kilian Jornet, Jonathan Charlet, Mathéo Jacquemoud, Paul Bonhomme and Pierre Tardivel, Vivian Bruchez seeks, and finds, one. Don't look down from your seats! With subtitles.



E2-PORTLAND: A SENSE OF PLACE

Tad Fettig (USA, 26 min)

FESTIVAL FAVORITES

For more than 40 years, City of Portland planners focused transportation decisions around providing rail and transit options while maintaining an urban growth boundary, becoming a model of transit-oriented design. As a result, Portland is considered one of the country's most livable places and has the second lowest per capita transportation spending of the country's 28 largest metro areas.



EPIC YELLOWSTONE: RETURN OF THE PREDATORS

Eric Bendick (USA, 51 min)

HAWAI'I PREMIERE

In person: Eric Bendick

The reintroduction of wolves and recovery of grizzly bears in Yellowstone National Park, two keystone species, brought new life and balance to the ecosystem; the landscape, trees and river basins have returned to their former state. But, life is not easy here, as seen through the eyes of a lone wolf searching for a pack and a grizzly bear mother.



THE ENDLESS WINTER II

Matt Crocker, James Dean (UK, 94 min)

FESTIVAL FAVORITES

The Endless Winter II follows British surf explorer Mark Harris as he traces the classic European surf trail from Cornwall to Morocco. The film shares the history of early pioneers who crafted Europe's annual winter pilgrimage across borders, while highlighting surfers making history now. Featuring Kepa Acero, Kevin Naughton, Bill Hamilton, Greg MacGillivray and Garrett McNamara.



FINDING JOE

Pat Takaya Solomon (USA, 80 min)

FESTIVAL FAVORITES

Through a series of fascinating interviews with thinkers from Deepak Chopra to Laird Hamilton and Alan Cohen, *Finding Joe* delves into the work of Joseph Campbell and navigates the stages of what Campbell dubbed "The Hero's Journey." The film illustrates how "The Hero's Journey" provides a narrative for how to live a fully realized life and why we are so drawn to the Hero's story.



FOLLOW THROUGH

Adam Clark, Isaiah Branch-Boyle (USA, 22 min) FESTIVAL FAVORITES

Since the age of 16, Caroline Gleich has been driven by the challenge put forth in *The Chuting Gallery*, which describes a set of 90 difficult and dangerous ski mountaineering lines in Utah's Wasatch Range that few have managed to complete. In setting out, Gleich must not only overcome her own self-doubts, but also negative input from random people in an e-connected and social media world.



FROSTY

James 'Q' Martin (New Zealand/USA, 15 min) Frosty shares an inside look and intimate portrait of elite ultra-runner Anna Frost who holds titles to some of the most difficult races in running. For Frost, trail running is a gateway to connect with the quiet of the natural world and with the community of ultra-runners she competes with. Now, as she approaches motherhood, Frost takes a moment to share a glimpse into her world.



GENERATION ZAPPED

Sabine El Gemayel (USA, 74 min)

HAWAI'I PREMIERE

Through interviews with doctors and researchers slowly becoming aware of the mounting evidence—given that no safety studies were ever conducted—*Generation Zapped* investigates the potential dangers of radiation exposure from cell phones, tablets and wi-fi. Even at 4G, when exposure can be minimized, this includes links to brain and other cancers, childhood disorders like ADHD and increased infertility and genetic mutation.



GOING VERTICAL

Poppy Walker (Australia, 87 min)

FESTIVAL FAVORITES

In 1967, Australia's Bob McTavish unveiled the first shortboard on the giant waves of the Duke Kahanamoku Contest, forever changing the face of surfing. California shapers, however, always claimed the revolutionary design as their own. *Going Vertical* shares the story, from the world's most famous surfing beaches, to the shaping rooms of these now legendary board makers.



GREAT BEAR RAINFOREST

lan McAllister (Canada, 43 min)

HAWAI'I PREMIERE

In person: Ian McAllister

The stunningly shot IMAX film *Great Bear Rainforest* brings viewers to a land of grizzly bears, coastal wolves, sea otters, humpback whales and the all-white spirit bear — the world's rarest bear. Found on Canada's remote Pacific coast, the Great Bear Rainforest is the last intact temperate rainforest in the world and one of the wildest places left on Earth.



THE GREAT HACK

Karim Amer and Jehane Noujaim (USA, 137 min) Having surpassed oil as the world's most valuable asset, personal data is being sought by everyone, everywhere, by any means possible. The Great Hack looks into how data is gathered and used; in some cases even weaponized, as a means to incite and manipulate cultural and political groups. Providing a look inside the Cambridge Analytica/Facebook scandal, the film raises somber questions, beyond any political agenda.

The Films



THE GREAT ROUTE
Maximilian Stolarow (UK, 11 min)
HAWAI'I PREMIERE

Stand-up paddler Michael Walther travels with filmmaker Maximilian Stolarow and photographer Daniell Bohnhof to explore the hidden beauty of Greenland's remote west coast and understand how climate change is affecting the high north. They follow the ancient 'Great Route' traveled by Inuit for generations, meeting poet and story teller Valdemar Petersen on the way. With subtitles.



THE HIDDEN FACE OF THE OCEAN SUNFISH

Alexandra Bollet, Benoit Demarle (France, 26 min) USA PREMIERE

The Hidden Face of the Ocean Sunfish tells the story of the ocean sunfish, one of the giants of the sea. Emerging as a tiny egg, growing up to 2,200 pounds in size and capable of diving to depths of 2,000 feet before basking in the sun, the ocean sunfish is a marvel of the deep blue. This fun film uses animation and astonishing facts to bring the ocean sunfish to life. With subtitles.



HŌKŪLE'A: PASSING THE TORCH

Phil Arnone (USA, 47 min)

In person: Phil Arnone, Chadd Paishon FESTIVAL FAVORITES

In 2007, Hōkūle'a delivers the canoe Alingano Maisu as a gift to navigator Mau Pialug in Satawal, the teacher who brought the knowledge of celestial navigation back to Hawai'i. Navigators Nainoa Thompson, Chadd Paishon, Bruce Blankenfeld, Chad Baybayan and Shorty Bertelmann are honored as Master (Pwo) Navigators in an ancient ceremony known as "Pwo," before Hōkūle'a sails on to Japan.



THE HULA WITHIN

Ari Bernstein (USA, 13 min)

In person: Ari Bernstein, Hālau O Poʻohala FESTIVAL FAVORITES

The Hula Within is a coming of age hula drama, following the character of Līhau as she prepares for an important hula competition by traveling from the ocean to the mountains, retracing the steps of her ancestors. The film features the 150-year hula legacy of the Beamer Solomon Hālau O Poʻohala, and the hālau's lead dancer, Leiomalama Tamasese Solomon.



HUMPBACK WHALES

Greg MacGillivray (USA, 40 min)

FESTIVAL FAVORITES

In person: Michele and Howard Hall
Set in the waters of Alaska, Hawai'i and Tonga, and with stunning imagery, the IMAX film Humpback Whales provides an up-close look at how and why humpbacks communicate, sing, feed, breach, play, take care of their young and migrate nearly 10,000 miles each year. Almost driven to extinction, humpbacks are making a slow, but remarkable recovery.



HUMPBACK WHALES: A DETECTIVE STORY

Tom Mustill (UK, 59 min)

HAWAI'I PREMIERE

In person: Tom Mustill

Tom Mustill has a unique relationship with whales. In 2015, a humpback whale breached and landed on Mustill and a friend while they were in a kayak. The experience inspired a deep curiosity in Mustill. With camera in hand, he set off to find his whale, to understand what happened and why. In the process, he unearthed the degree to which whales are threatened by entanglement in fishing gear and ship collisions.



ICE AND PALMS

Jochen Mesle, Max Kroneck, (Germany 32 min) HAWAI'I PREMIERE

Skiers Jochen Mesle and Max Kroneck attempt their biggest ski tour to date; on a bicycle. They haul 110 pounds each—camping, skiing, cycling and mountaineering gear, plus camera equipmentwhile pedaling and skiing through Germany, Austria, Switzerland, Italy and France. Traveling over 1,000 miles with 11,500 feet of vertical gain on a 100% self-powered adventure, they arrive in Nice. With subtitles.



INTO THE CANYON

Pete McBride (USA, 84 min)

HAWAI'I PREMIERE

In 2016, filmmaker and photographer Pete McBride and writer Kevin Fedarko set out on a 750-mile journey on foot through the entire length of the Grand Canyon. The challenge was more than they bargained for. Part meditation on the timeless beauty of the place, their quest was more than just an endurance test-but a way to draw attention to the unprecedented threats now facing the canyon.



JOHN MCAVOY: THE IRONMAN SET FREE Jonny Madderson and Jono Stevens

(USA, 13 min)

In the family John McAvoy grew up in, crime was a way of life; he believed it was the life set out for him. While in prison something happened that changed McAvoy's mindset. With his release, and the words and encouragement of a prison guard behind him, he started to train and compete for the Ironman: his life forever transformed.



JOURNEY OF THE WHOOPING CRANE

Greg Pope, Rhett Turner (USA, 52 min) HAWAI'I PREMIERE

Standing five feet tall, with a wingspan of over seven feet, Whooping Cranes migrate 2700 miles each way from their wintering grounds in Texas to their summer breeding grounds in Canada. With 400 in the wild, the efforts of multiple agencies and organizations, employing novel ideas and techniques, have been working to help bring this graceful and iconic bird back to the landscape.



JUDI DENCH'S WILD BORNEO ADVENTURE

Harvey Lilley (UK, 50 min)

HAWAI'I PREMIERE

In person: Anthony Geffen

In Borneo, Judi Dench explores one of the oldest and most pristine rainforests in the world; jungle dating back 130 million years. She meets orangutans in the wild, discovers that 30 percent of life in the rainforest exists high in its canopy and visits orphaned sun bears. She also learns how the loss of rainforest for palm oil is having a devastating impact, on wildlife and the climate.



JUNGLE BOOK BEAR

Oiliver Goetzl (Germany, 59 min)

HAWAI'I PREMIERE

The role model for Baloo-Mowgli's constant companion from Rudyard Kipling's Jungle Book—are the sloth bears of India. Given its starring role in the book and later on the big screen, surprisingly little is known about this shy, nocturnal animal. Filmed over a three-year period, and capturing never-beforeseen behavior, Jungle Book Bear shares the story and adventures of a real, live Baloo.



JUST ONE STEP Benjamin Keller (USA, 83 min) HAWAI'I PREMIERE

Just One Step asks the questions: why is it, exactly, that we run? And why are there so many people out there running? Featuring interviews with scientists, doctors and elite runners, this fascinating and fun film looks at how running may be genetically encoded in our being, how higher brain functions may be a result of the act of running and how running aids in memory and learning.



LAS OLAS SIN FRONTERAS/ TRANSCENDING WAVES

Julián and Joaquín Azulay, Fernando Salem (Argentina, 74 min)

BIG ISLAND PREMIERE

The Gauchos del Mar brothers explore the Falkland Islands—an archipelago comprising 700 islands—with the hope of building bridges between the people of Argentina and the Falkland islanders, through the common bond of surfing; a relationship shattered by the 1982 war. In a quest to find the two brothers there who also surf, they explore, search for waves and immerse in the culture. With subtitles.



LAST MAN FISHING
JD Schuyler (USA, 64 min)
HAWAI'I PREMIERE

Last Man Fishing looks at the dichotomy between industrial fishing and sustainable fishing methods along with current changes in the seafood system. The film focuses on the connection between small-scale local fishermen, conservation, resource management and fish quality; plus the recent rise of middlemen 'landlords,' who skim profits and add to the hardship for local fishermen as an unintended consequence of the permit system.



THE LAST OCEAN

Peter Young (New Zealand, 83 min)
FESTIVAL FAVORITES

The Ross Sea, Antarctica, sits in the most pristine stretch of ocean on Earth. Largely untouched by humans, it is one of the last places where the delicate balance of nature prevails; a vast, frozen landscape that teems with life. The film asks the question of whether we will protect this area as a world resource while we can.



LE CHÉILE Kevin L Smith (Ireland, 5 min) HAWAI'I PREMIERE

Filmed in Lahinch, Ireland and set to the music of "Liscannor Bay" while recorded live in the local pub, *Le Chéile* provides a poetic glimpse into life and surfing in this small Irish town. The film features local surfer Ollie O Flaherty, his friends, the Cliffs of Moher that rise from the edge of Liscannor Bay—and Aileens, the legendary big wave surf break.



MAIDEN

Alex Holmes (UK, 97 min)

In 1989, the idea of a female on board as crew of any vessel in the Whitbread Round the World Race—let alone a competitive all-female sailboat crew—was inconceivable in the male-dominated world of open-ocean yacht racing. Without proper funding and scant resources, Tracy Edwards manages to buy and re-build the racing yacht *Maiden*, assemble an all-female crew and become the boat to beat.



MARK BEAUMONT 240 Stefan Morrocco (UK, 7 min)

USA PREMIERE

In preparation for his attempt at breaking the world record by riding his bicycle around the world in 80 days—which would require averaging 16-hour, 240-mile rides each day—Mark Beaumont completed a series of 240-mile training rides around Scotland. The film follows Beaumont on his final training ride, charting what it takes mentally, physically and emotionally to cycle just one 240-mile day.



NAZARÉ CALLING

Garrett McNamara (Portugal, 58 min)

FESTIVAL FAVORITES

After being called to assess whether it was possible to surf the wave at Nazaré, and in the month leading up to his record-breaking ride—of what was credited as a 78-foot wave and at the time the largest wave ever ridden—Garrett McNamara explores the old Portuguese town, studies the swell and grows to love the people and place.



MIND OF A GIANT

Emre Izat, Geoff Luck (USA, 50 min)
FESTIVAL FAVORITES

Following the work of top scientists, *Mind of a Giant* reveals elephants are more intelligent than we were aware: they are cognizant of the safety of park boundaries, understand where those boundaries lie; try to keep family groups safe when they cross between; and recognize human dialects as belonging to different human groups.



NORTH COAST 500

lain Mitchell, Rupert Shanks (Scotland, 4 min)
FESTIVAL FAVORITES

The North Coast 500 is a 516-mile scenic route winding through the Scottish Highlands, starting in Inverness, venturing up the west coast and back via the rugged north coast. Cyclist Mark Beaumont decides to make the entire ride in a single day, showcasing the staggering scenery, the gritty weather and the psychology of ultraendurance riding.



MYRTLE SIMPSON

Leigh Anne Sides (USA, 24 min)

HAWAI'I PREMIERE

In person: Andrew Cahill

Myrtle Simpson's life has taken her around the globe, from the Scottish Highlands to the high Arctic to Peru. A pioneer, adventurer, mountain climber, polar explorer, writer, wife and mother, Simpson has also written 13 books and collected specimens for botanical collections around the world. She still continues to explore and ride her bicycle every day.



NORTH OF THE SUN

Inge Wegge, Jørn Ranum (Norway, 46 min)

FESTIVAL FAVORITES

Inge Wegge and Jørn Ranum spent nine months on a remote, Arctic island off the coast of Norway, through the heart of winter. Living "off of leftovers," they built their own cabin out of debris and trash that had washed up on shore, ate expired food the stores would otherwise have thrown away and surfed through the dark of a northern winter.



O'DONOVAN BROTHERS: FROM THE BACK OF BEYOND

Jonny Madderson and Jono Stevens (USA, 13 min)

Brothers Gary and Paul O'Donovan grew up in rural Ireland in a small town of 2,000 people. Without resources for sophisticated training equipment, the brothers made and put together their own. Using an old set of weights and simple equipment, their drive, determination and love of rowing, not to mention the community behind them, were enough to take them all the way to the Olympic Games.



OF ANTS AND MEN
Shelley Schulze (USA, 91 min)
FESTIVAL FAVORITES

The world's foremost authority on ants, E.O. Wilson, was also one of the first people to start thinking in term of ecosystems, coining the term "biodiversity." Wilson sparked a torrent of criticism from even his fellow colleagues at Harvard for his 1975 book *Sociobiology*; now a standard course of study. *Of Ants and Men* explores the tendency of humans to employ "us" versus "them" thinking.



PANIOLO O HAWAI'I Edgy Lee (USA, 79 min) FESTIVAL FAVORITES

Before the cowboys of the Wild West began to rope cattle on the frontier, the paniolo were busy wrangling herds in Hawai'i. *Paniolo O Hawai'i* provides the history and backdrop to the paniolo town of Waimea, tracing paniolo heritage back to the 1790s—when British explorer Captain George Vancouver arrived with a few Mexican longhorns.



PAPA MAU: THE WAYFINDER

Na'alehu Anthony (USA, 57 min) In person: Chadd Paishon

FESTIVAL FAVORITES

Hōkūle'a made her historic maiden voyage in 1976 using traditional wayfinding—the art of navigating by the stars and through knowledge of how to read the skies, sea and surroundings. While Hōkūle'a took form from the belief and determined effort initially of three people, it was Mau Piailug, a navigator from the island of Satawal, who brought the knowledge and art of wayfinding back to Hawai'i.



A PLASTIC OCEAN

Craig Leeson (USA, UK and Hong Kong, 99 min)
FESTIVAL FAVORITES

When journalist Craig Leeson encounters plastic waste while filming in what should be pristine ocean, he decided to learn more about what was happening. Leeson goes on to work with free diver Tanya Streeter and an international team of scientists and researchers to explore the fragile state of the ocean, understand plastic pollution and seek solutions.



SEA OF ROCK Sebastian Doerk (Germany, 12 min) FESTIVAL FAVORITES

In 1972 two Austrian guys almost invented the mountain bike when they tried to ride the Sea of Rock on a military bicycle they had taken from one of their grandfathers. The bicycle remains today where it was abandoned. It took another 40 years for professional cyclists Harald Philipp and Tom Oehler to follow in their footsteps, embarking on this jawdropping ride.



THE SERENGETI RULES
Nicolas Brown (UK, USA, 84 min)
2019 AUDIENCE CHOICE WINNER

In the 1960s, a small group of scientists, working in various parts of the world, independently come to understand that some species, or "keystones", maintain the conditions and environment necessary to support the whole web of life around them; and that this holds for any ecosystem, in any location. When keystones are removed, other species and, at times, whole ecosystems, disappear.



SURFACE

John Rodosky (USA, 7 min)
Award-winning photographer Ben Thouard's love of the ocean, surfing and windsurfing brought him to the small village of Teahupoo, Tahiti. From the crystal-clear waters of the legendary surf break—and after 15 years of trial and error, failure and success—Thouard discovers his own photographic style: a vision of the world and landscape as seen underwater from inside a wave.



SEVEN WORLDS, ONE PLANET: ANTARCTICA

HAWAI'I PREMIERE

Fredi Devas, Jonny Keeling (UK, USA, 60 min) In person: Jonny Keeling

Presented by David Attenborough, BBC's Seven Worlds, One Planet: Antarctica shares never before seen stories about life on this continent. From huge colonies of king penguins, working tirelessly and in tandem to feed their chicks, to the large and stately emperor penguins, to fledgling albatross weathering a storm, the film brings the world of Antarctica to life.



TALES BY LIGHT - ANTARCTIC PANORAMA

Abraham Joffe (Australia, 23 min)

FESTIVAL FAVORITES

In the footsteps of Frank Hurley, the pioneering Australian photographer on board Ernest Shackleton's expedition, landscape photographer Peter Eastway travels to Antarctica to re-create the same scenes and locations Hurley photographed a century ago. There, he captures stunning images of the Adélie penguin and the Antarctic landscape.



SHOREBREAK: THE CLARK LITTLE STORY Peter King (USA, 59 min)

FESTIVAL FAVORITES

Clark Little's photographs of shorebreaks on O'ahu's North Shore delight audiences worldwide. His work has been exhibited in Japan, Canada, Brazil, Spain and the U.S., and has been featured on CBS Evening News, Good Morning America and The Today Show. Shorebreak shares Clark Little's passion for photography, his enthusiasm for capturing the beauty of a wave and his story.



TIDAL

Trygve Heide (South Africa, 28 min)
USA PREMIERE

Tidal follows the story of Lisa Beasley, whose lifethreatening accident while base jumping brings her back to the ocean. During her recovery, Beasley discovers the beauty of Cape Town's tidal pools. As she comes to understand that harmful, longstanding cleaning protocols kill the marine life in the pools every few weeks, she works with the city to protect them.



TRANSITION
Nate Laverty (Canada, 42 min)
USA PREMIERE

Set in the rugged rainforest of the west coast of Vancouver Island, and with stunning cinematography and poetic surf sequences throughout, this quiet film tells the story of professional surfers Pete Devries and Noah Cohen. Now a father, Devries' fulfilment as a surfer starts to revolve around mentorship while Cohen quests for a spot on the Canadian National Surf Team.



UNBRANDED
Phillip Baribeau (USA, 105 min)
FESTIVAL FAVORITES

Setting out to inspire adoptions of 50,000 wild horses and burros living in government pens, Ben Masters recruits three friends and develops a plan to adopt, train and ride a string of wild mustangs 3,000 miles from Mexico to Canada, through the heart of the American West. The journey is as challenging as it is beautiful, complete with unexpected trials and a rodeo.



UNDERCOVER IN THE JUNGLE Will Benson (UK, 52 min)

HAWAI'I PREMIERE

Undercover in the Jungle follows a team of naturalists and wildlife filmmakers on an expedition into one of the most biodiverse regions of the Amazon rainforest. Their mission is to install a network of remotely operated cameras and minicams—fixed across all levels of the rainforest canopy and running round-the-clock—to capture a complete picture of the lives of wildlife there.



THE WEEKEND SAILOR

Bernardo Arsuaga (Mexico, 74 min)

FESTIVAL FAVORITES

In 1973, the United Kingdom organized the first head-to-head sailing race around the world. The Whitbread Round the World Yacht Race, now the Volvo Ocean Race, took the sport to its limits. The British Royal Navy purchased six yachts to train 800 men, expert crews represented most sailing nations and then a gentleman sailor from Mexico, self-made businessman Ramon Carlín, entered the race. With subtitles.



WILD AUSTRIA: THE FLOW OF TIME

Rita & Michael Schlamberger (Austria, 50 min)

Water is constantly shaping the landscape. In Austria, carved by Alpine glaciers, ancient seas and mighty rivers, water created a great work of art. With stunning imagery, *Wild Austria* shares the scenery and stories about the wildlife and habitat fed by rivers; such as the goldeneye duck hatchlings who leap after their mother into the distant water below.



THE WILD
Mark Titus (USA, 64 min)
HAWAI'I PREMIERE

Once so abundant, salmon was considered affordable during the Great Depression. The Wild looks at the potential loss of North America's last great wild salmon run, should the proposed Pebble Mine—what would be North America's largest open-pit copper mine—be built. The question that emerges is one of logic in whether to allow Bristol Bay, and all who make their livlihood there, to be put at risk. And, in why we wouldn't bring our other salmon runs back.

The Films



THE WILDEST DREAM: CONQUEST OF EVEREST

Anthony Geffen (UK, 88 min)

HAWAI'I PREMIERE

In person: Anthony Geffen

Told through George Mallory's correspondence with his wife and using previously unseen photos and archival footage, *The Wildest Dream: Conquest of Everest* seeks to answer whether Mallory reached the summit. Donning the equipment and gear of the day, climbers Conrad Anker and Leo Houlding follow the original route taken by Mallory and Irvine in 1924 to determine if it were possible.



WITHIN REACH

Michael Cochran (USA, 23 min)

HAWAI'I PREMIERE

Josh Mulcoy's first trip to Alaska in 1992 resulted in his first *Surfer Magazine* cover; it also sparked a lifelong pursuit of perfect waves and surreal beauty on the Alaskan shoreline. *Within Reach* shares Josh Mulcoy's story, his love of the area, the sacrifices and rewards that come with surfing, and the way current fads and trends have of coming full circle.



Within Reach. Surfer Aaron Bierman prepares for a session in Alaska. Photo © Mike Cochran

WEDNESDAY, JAN 1

. Waimea Schedule

	Parker	Kahilu	HPA Gates	Fairmont	Fairmont 2
3:00					
3:30					
9:00					
9:30					
0:00	10 00a-11:00a	10:00a-11:30a	10:00a-11:30a	10:00a-11:30a	10.00a-5.00p
0:30	Jungle Book Bear	Maiden	Of Ants	Sea of Rock North of Sun	NOAA Exhibits
1:00			and Men	Ice & Palms	10:00a-6:00p
1:30	Undercover in				
	the Jungle	11:45a-1:15p Seven	11/45a-1:15p	11:45a-1:30p Wee Day Out	noon-3:00p
noon		Worlds:	Going		noon-a.cop
2:30	12:30p-1:45p Bat Man	Antarctica	Vertical	Big Wave Project	
1:00	of Mexico	Q&A		Project	Bonnie Chem
1:30	Q&A	1:30p-3:45p	1:30p-2:45p		
2:00	2.00p-3.00p	Höküle'a	Beaumont 240 Great Bear	1:45p-3:30p Beaumont 240	
2:30	Andy's Adventures	Q&A	Rainforest Q & A	Around the	
	Q & A	Papa Mau:		World in	
3:00	3.15p-5.00p	Wayfinder	3:00p-5:00p Surface	80 Days	
3:30	Ocean Sunfish Attenborough's	Q & A	Shorebreak	3:45p-5:00p	
4:00	Great Barrier	4:00p-5:00p	Tales by	Danny Daycare	
4:30	Reef	Voyager Exhibit	Light E2-Portland	Distance Between	
		CAINDIL	CE-1 Ordano	Dreams	
5:00					
5:30					
5:00	6:00p-7:45p Doug Tompkins	6.00p-7.15p Humpback	6:00p-7:15p	6:00p-7:15p	
5:30	O'Donovan Follow Through	Whales:	Generation Zapped	Apollo 11	
7:00	John McAvoy	Q & A	Zapped	Q&A	
7:30	Ice & Palms	7:30p-9:15p	7:30p-9:45p	7:30p-9:00p	
3:00	8:00p-9:30p	N. Coast 500 Danny Daycare	The	Birth of	
3:30	Beaumont 240	The Endless	Great Hack	Saké	
Table 1	into the	Winter II			
00:0	Canyon				

THURSDAY, JAN 2

Kahilu	HPA Gates	Fairmont	Fairmont 2
	8.15a-9.15a		
BREA	AKFAST TA	ALKS	
9:30a-11:15a	9:30a-11:15a	- Wrestown	
BOO & Manon		9 458-11 008	10:00a-6:00p
Just One	Trinoping Craire	Penguins	NOAA
Step	Mind of Giant	7.2	Exhibits
			10:00a-6:00p
A&D			
11.20-1.20-	11.10- 11.20-		
		3.777725	
	North of Sun		noon-3.00p
Q&A	100000000000000000000000000000000000000	Q&A	
Great Bear			
Rainforest	12:45p-1:45p	12:45p-1:45p	
			Bonnie Chemi
Q&A	Contract Con		
1.45- 2.20-	Q&A	Q&A	
	2.00n-3.30n	2:00n.3:30n	
October 10	2.000.000		
Around the	Audubon	Entre Lignes	
World in			
80 Days			
		Lines	
2 45- 5 45-	2.45-2.45-	2 454 5 004	
1100 000 000		Transition	
Into the	Epic Yellowstone	Within Reach	
Canyon	Eclipse		
	Q&A		
6.00p-7.45p		6:00p-7:15p	
		Th. 146.	
The second secon	Chasing Sublime		
	Maiden	Saliul	
Time decity	(Manager)		
Q&A		7.30p-9.15p	
		Marketon	
	0.15-0.15-		
	8.15p-9:45p	Dream	
74 W. Fried Co. Co. C.	Finding		
Q & A	Joe	Q&A	
E2-London	10070	2.014	
	9:30a-11:15a Bob & Marion Just One Step Q & A 11:30a-1:30p Humpback Whales Q & A Great Bear Rainforest Q & A 1:45p-3:30p Beaumont 240 Around the World in 80 Days 3:45p-5:15p Wee Day Out Into the Canyon 6:00p-7:45p Diving Deep: Life and Times of Mike deGruy Q & A 8:00p-9:45p Humpback Whales: Detective Q & A	9:30a-11:15a Bob & Marion Just One Step Just One Step Mind of Giant 0 & A 11:30a-1:30p Humpback Whales Q & A Great Bear Rainforest 0 & A 1:45p-3:30p Beaumont 240 Around the World in 80 Days 3:45p-5:15p Wee Day Out Caryon 6:00p-7:45p Diving Deep: Life and Times of Mike deGruy 0 & A 8:00p-9:45p Humpback Whales: Detective Q & A 8:15p-9:45p Humpback Whales: Detective Q & A Binding Binding 9:30a-11:15a Journey of Whooping Crane 11:30a-12:30p Sea of Rock North of Sun Q & A 11:30a-12:30p Sea of Rock North of Sun Q & A 12:45p-1:45p CA High Speed Rail Q & A 2:00p-3:30p Audubon 4:45p-5:15p Cowboys Q & A Epic Yellowstone Eclipse Q & A 8:15p-8:00p Chasing Sublime Times of Mike deGruy Maiden 9:30a-11:15a Journey of Whooping Crane Mind of Giant	### BREAKFAST TALKS ### BROAKFAST TALKS ### BROAK

10:00

FRIDAY, JAN 3

. Waimea Schedule

Parker Kahilu **HPA Gates** Fairmont Fairmont 2 8:00 8:15a-9:15a 8:30 **BREAKFAST TALKS** 9:00 9:30a-11:00a 9:30a-10:45a 9:30a-11:00a 9:30a-10:30a 9:30 Doug Tompkins Frosty Jungle Book Penguins Myrtle Bear 10:00a-5:00p 10:00 The Wild Simpson NOAA Exhibits QSA 10:30 Tidal 10:45a-noon 10:00a-6:00p 11.00a-12.30p Seven 11:00 11:15a-1:00p Sea of Rock Worlds: 11:15a-12:30p North of Sun Marc Lammers Antarctica 11:30 A Plastic Adam Pack Q&A Ocean Ice & Palms noon-3:00p пооп Q&A 12:15p-1:15p Duke 12:30 12:45p-2:15p 12:45p-2:00p Kahanamoku 1:00 Great Route Seven Q&A Bonnie Chemi 1:15p-2:15p Entre Lignes Worlds: Edith Antarctica 1:30p-3.00p 1:30 Kanaka'ole Behind the Q&A Foundation Going Lines 2:00 Vertical 2:15p-3:45p Chad Wiggins 2:30 2 30p-3 30p 2.30p-3.45p Jungle Book Le Chèile Q&A Bear Transition Alan 3:00 Within Reach Friedlander 3:15p-5:00p OSA N. Coast 500 3:30 3 45p 5 15p Frosty The Endless 4:00p-5:00p 4:00p-5:15p 4:00 Andy Collins Winter II Myrtle Hula Within NOAA Turtles 4:30 Simpson Solomon Beamer Q&A Q&A QSA Tidal KMLAC 5:00 5:30 6:00 6:00p-7:15p 6.00p-7.15p 6:00p-7:45p 6 00p-7:45p Bob & Marion Transcending Generation Maiden 6:30 Waves Just One Zapped Step 7:00 7.30p-9.45p Q&A 7:30 7:30p-9:30p

SATURDAY, JAN 4

Parker	Kahilu	HPA Gates	Fairmont	Fairmont 2
	BREA	8 15a-9 15a KFAST T	ALKS	
9k0as10k0a Andy's Adventures Q & A	9:30a-10:45a TBA	9:30a-11:00a The Serengeti Rules	9:30a-11:00a Ocean Sunfish Attenborough's Great Barrier Reef	10:00a-4:00p NOAA Exhibits 10:00a-6:00p
TBA noon-1:15p	11:00a-12:30p TBA	11:15a-12:30p TBA	11:153:12:15p Chasing Sublime Wild Austria	ncon-3.00p
TBA 1:30p-3:00p	12:45p-2:30p TBA	12:45p-2:15p TBA	12:30p-2:15p Surface Shorebreak Tales by Light	Bonnie Chem
TBA 3:15p-5.00p	2:45p-5:00p	2:30p-4:15p	2:30p-4:00p Audubon	
TBA: Finite Water Q & A TBA	TBA		4:15p-5:30p	
Q & A			TBA	
The Last Ocean			6:15p-8:00p	
7:45p-9:15p TBA				

8:00

8:30

9:00

9:30

Danny Daycare Distance

Between Dreams

Nazaré

Calling

The

Great

Hack

8.00p-9:45p

Doug Tompkins

O'Donovan

Follow Through

John McAvoy

Ice & Palms

8:00p-9:30p

Paniolo

O Hawai'i



Bird of Paradise. Artwork by Marcia Ray

Breakfast Talks

Start your day with coffee and conversation. Breakfast Talks are from 8:15-9:15 am in the Garden Room at the Mauna Kea Beach Hotel and at Anna Ranch Heritage Center in Waimea.

THU JAN 2

Mauna Kea Beach Hotel

Anthony Geffen

Geffen has garnered over 50 international awards, including multiple British Academy Film Awards (BAFTAs), multiple Emmy Awards and the Sir Charles Wheatstone Award for outstanding contribution to film and television. His current productions include *Mission Titanic*, which follows the first dive to the Titanic in 14 years and a Discovery Channel five-part series charting dives to the deepest points of all five oceans. Join Anthony Geffen as he shares behind-the-scenes stories from recent productions and projects underway.

Anna Ranch Heritage Center

Attendee Talk Story

Bring your mug, your Festival Program, grab a cup of coffee and hear the buzz from other attendees as you plan your day.

FRI JAN 3

Anna Ranch Heritage Center

Attendee Talk Story

Bring your mug, your running shoes, your Festival Program and join Benjamin Keller to share your best running, marathon or ultrathon stories.

Mauna Kea Beach Hotel

Jonny Keeling

Jonny Keeling has 23 years filmmaking experience in BBC's Natural History Unit. His work includes a range of material, including blue chip and global landmarks—BBC's top-of-the-line, standout productions, such as *Planet* Earth II—live broadcasts, observational documentaries and presenter-led pieces. Keeling was series producer of Lost Land of the Volcano and, most recently, the executive producer for the BBC landmark series Seven Worlds, One Planet. Join Jonny Keeling as he answers questions about Lost Land of the Volcano, shown last year, and shares behind-the-scenes stories from the filming of Seven Worlds, One Planet.

SAT JAN 4

Mauna Kea Beach Hotel

Tom Mustill and Eric Bendick
Tom Mustill is an Emmy-nominated
wildlife and science filmmaker. Eric
Bendick is an Emmy award-winning
storyteller, director and producer. They
both spend countless hours tracking,
anticipating and filming wildlife. Join
Tom Mustill and Eric Bendick as they
share stories from filming in the wild:
the rewards and travails; the challenges
in tracking and finding wildlife; and the
wildlife they film and encounter.

Paniolo Line Up. Artwork by Marcia Ray



THU JAN 2 - SAT JAN 4

Mauna Kea Beach Hotel

Yoga on the Beach 7-8 am

Join fellow festival attendees 7-8 am Jan 2-4 for sunrise yoga with instructor Chelsea Morriss of Waimea Yoga. Classes meet at the upper lawn by the lu'au grounds, and if conditions permit, will move to the beach. Come enjoy first light on the ocean and an invigorating start to the day. Bring your own mat or towel, and a water bottle.



Paddle an Outrigger Canoe 6:15-7:45 am

Waimea Ocean Film Festival attendees are invited to join Kawaihae Canoe Club in Kawaihae Harbor to learn how to paddle an outrigger canoe.

Participants must sign up in advance, know how to swim and sign a waiver, recognizing that they understand there is some risk to any ocean-based activity. Participation is limited. Please sign up at the Festival Hospitality Desk at Kahilu Theatre by 5 pm the evening prior, or contact the Festival Office at 808-854-6095. Participants should arrive 15 minutes early.



Photo credit: Josh Fletcher

Kawaihae Canoe Club in Kawaihae Harbor

The Kawaihae Canoe Club was formed in 1972 by a group of athletic and civic-minded individuals from Waimea and has been instrumental to the revival of the ancient Hawaiian tradition of outrigger canoe racing on the Big Island.

The club's dedication to promoting and perpetuating outrigger canoe paddling brings participants ranging in age from 10 to 80. Hawai'i's official team sport challenges kids by giving them a sense of direction and discipline.





Kona Coffee & Tea

Kona Coffee & Tea is a family ownedand-operated business serving 100% single-estate Kona coffee; grown on the slopes of Hualālai, then milled, roasted, brewed and served at the Kona Coffee & Tea Cafe, all within a 10-mile radius. The quality of every bean is carefully tended to from farm to cup; and the cafe comes complete with lovely mango wood tables.

SUSTAINABLE FARMING

The philosophy behind the Kona Coffee then the & Tea farm is to return to the land what is taken, so the land is replenished rather than depleted. Pesticides are not used to grow the coffee. The soil in Hawai'i still contains the essential nutrients the coffee plants need and there is little

or no need for use of added fertilizers. As Kona Coffee & Tea notes, the coffee rarely requires pesticides as caffeine is a natural deterrent to most pests while simultaneously attracting many pollinators.

HAND PICKING

Three years after planting, delicate, white flowers emerge between January and May. These sweet-smelling blossoms are affectionately known as "Kona snow." As the "Kona snow" melts, a bright green cherry develops. Once the summer sun ripens the cherry to red, coffee pickers meticulously look for only the perfectly ripe fruit to pick by hand.

ARTFUL MILLING AND ROASTING From the field to the family mill, the bright coffee cherry travels 10 minutes down a windy country road. The ripe cherry is then hulled, polished, cleaned



and graded by a wet and dry mill. The Kona Coffee & Tea Master Roaster then transforms the different grades

> of green beans into coffee beans by roasting in small batches. While crafting light, medium, full city, or dark roasts, she tests each batch to ensure the perfect taste, smell and color. The roasted Kona Coffee & Tea beans are

exclusively brewed and served in the café, making for a rare "From Our Farm to Your Cup" coffee experience.

Kona Coffee & Tea encourages the use of bring-your-own mug and straw with 25- and 10-cent discounts, respectively, when you provide your own.

Kona Coffee & Tea will offer coffee and light refreshments for sale 11 am-4 pm Jan 1 and 11 am-6 pm Jan 2-4 by the Festival Hospitality Desk at Kahilu Theatre.

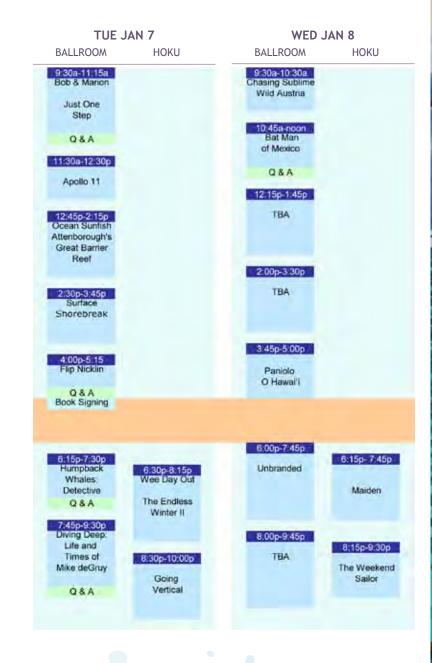
Also join Kona Coffee & Tea for a special coffee tasting 11 am Tuesday, Jan 7 in the foyer of the ballroom at Four Seasons.



Four Seasons Schedule *

FOUR SEASONS SCHEDULE January 4-8, 2020

	SAT JAN 4	SUN JAN 5		MON JAN 6	
	BALLROOM	BALLROOM	HOKU	BALLROOM	HOKU
30		9:30a-10:45a		9:30a-11:15a Tales by	
:00		Penguins		Light	
30				Myrtle Simpson	
				Q&A	
:00		11.00a-noon		Ice & Palms	
:30		Dench Borneo		11:30a-1:15p Cowboys	
on		Comeo		Q&A	
20		12:15p-1:30p Seven		Epic Yellowstone	
:30		Worlds		Eclipse	
00		Antarctica		Q&A	
30		Q&A		1:30p-2:45p	
~		1:45p-3:30p		Great	
X)		Beaumont 240		Bear	
30		Around the		Rainforest Q & A	
30		World in		wan	
00		80 Days		3:00p-5:00p Humpback	
30				Whales	
		3.45p-4.45p		Q&A	
00		CA High Speed Rail		Michele and Howard Hall	
30		Q & A		Howard Hall	
Jul.		Qun		Q&A	
00					
30					
00		5:00p 7:30p			
30	6:30p-7:30p	Audubon		6:15p -7:45p	6:30p-7:45p
~	Anthony	nouseon		Of Ants	NC500
ю	Geffen		7:00p-8:45p Wee Day Out	and Men	Sea of Rock North of
30	Q & A	Contraction of the last of the			Sun
	7:45p-9:00p Jonny	7:45p-9:30p Journey of	Big Wave Project	0.00 0.00	0.00 0.00
-		Whooping	Project	8:00p-9:30p	8:00p-9:30p Great Route
00	Keeling	Crane		Into the	Entre Lignes
	Seven Worlds	*****			
30		Mind of Giant	9-00e-10-00e	Canyon	Behind the
30	Seven Worlds	Mind of Giant	9:00p-10:00p Nazare	Canyon	Behind the Lines



Four Seasons Breakfast Talks

Start your day with coffee, pastries and compelling conversation. Breakfast Talks are 8:45-9:45 am in Moana Terrace above 'Ulu Ocean Grill.

SUN JAN 5

Jonny Keeling

Jonny Keeling has 23 years filmmaking experience in BBC's Natural History Unit. Among other projects he was producer on *Planet Earth* and an executive producer on *Planet Earth II*. Most recently, Keeling was the executive producer for most for the BBC landmark series *Seven Worlds, One Planet*. Join Jonny Keeling as he shares stories behind-the-scenes from the filming of *Seven Worlds, One Planet*.

MON JAN 6

lan McAllister and Eric Bendick
lan McAllister is a filmmaker, awardwinning photographer, and author and
co-author of 15 books. Eric Bendick is
an Emmy award-winning storyteller,
director and producer. They both
spend countless hours out in the field
photographing and filming wildlife,
particularly wolves and bears. Join
lan McAllister and Eric Bendick as they
share behind-the-scenes stories about
what it takes to film in the wild.



Beach House. Artwork by Becky Holman

TUE JAN 7

Flip Nicklin

Flip Nicklin has spent his 46-year career specializing in the photography of marine mammals, and in particular whales and dolphins. Join Flip Nicklin as he shares behind-the-scenes stories from the making of his most recent book, *Among Whales*.

WED JAN 8

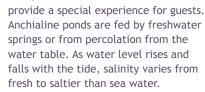
Tom Mustill

Tom Mustill is an Emmy-nominated wildlife and science filmmaker. Mustill's credits include *The Bat Man of Mexico and Giraffes: Gentle Giants*, both favorites at the festival. Join Tom Mustill as he shares behind-the-scenes stories from these as well as his most recent production, *Humpback Whales: A Detective Story*.

Four Seasons Fish Ponds

Perpetuating the Hawaiian principle Malama Ka Honua, or "protecting the land and ocean," David Chai and his team of natural resource specialists manage and maintain the health and

integrity of all natural, anchialine and manmade ponds at Four Seasons Resort Hualālai, including Waiakauhi Fishpond and Lake Pūnāwai. Anchialine ponds exist in inland lava depressions near the ocean. Ten of the anchialine ponds on property are natural while one, King's Pond, is man-made to



The resort uses an on-site aquaculture farm. A wide variety of herbs and vegetables are also grown for restaurants at the resort.

LAKE PŪNĀWAI

A synergy of ancient and modern aquaculture practices, Lake Pūnāwai is a man-made (lined) lake built in 2001 as an aesthetic water feature to be used for aquaculture production utilizing a sustainable "living" filter system which has won awards for its design. The lake is stocked with several different species of fish: awa (milkfish), 'ama'ama (mullet), kāhala (amberjack), 'ōpae (shrimp) and 'ōlepe (oysters.) All of the fish are edible and around 500 oysters,

plus shrimp, are harvested each week to deliver fresh and locally-grown sea food to the restaurants on property.

WAIAKAUHI FISHPOND

This two-and-a-half-acre pond was formerly a working Hawaiian fishpond and one of the largest to be found on the Kaʻūpūlehu coast. It is said to have

been even larger before being covered by the lava flow of 1801. This fishpond attracts numerous native birds such as the threatened Hawaiian stilt (ae'o), black-crowned night heron (auku'u) and many differed species of shorebirds.



that were typical of early Hawaiian fishponds, including *awa* (milkfish) *ama'ama* (mullet), *aholehole* (Flagtail) and *papio* (trevally). These are not for consumption, but to keep the pond ecosystem stable. The Resorts Natural Resources team has been restoring and maintaining the natural ponds at Ka'ūpūlehu since 1990. They continue with a commitment to preserving the ocean and its natural resources and work with students from around the island in the field of marine science and aquatic resource management.

Join natural resource team biologists for a tour of the anchialine ponds and natural resource features on property at Four Seasons 10 am Tuesday, Jan 7. Meet at 9:45 am at Moana Terrace above 'Ulu Ocean Grill for a cup of coffee prior to departure. The tour will leave from here.



David's Pond. Artwork by Becky Holman



Anthony Geffen

Anthony Geffen, CEO and filmmaker at Atlantic Productions, worked 10 years for the British broadcasting corporation (BBC) before establishing Atlantic Productions in 1992. Geffen has garnered over 50 international awards for his work, including three British academy film awards (BAFTAs), eight Emmy awards and the Sir Charles Wheatstone award—one of the highest honors in filmmaking—for outstanding contribution to film and television.

Screened worldwide, Geffen's films comprise a fascinating mix of documentaries, theatrical films and IMAX productions. His work encompasses 11 projects with David Attenborough, including the award-winning *Great Barrier Reef Series*, Conquest of the Skies and Natural History Museum Alive. Geffen also produced the

highly regarded BBC series *Inside the Commons*, and the award-winning, theatrical film *The Wildest Dream: Conquest of Everest*.

Recent productions include The Coronation with the Queen of England, Undercover in the Jungle and the twopart series Judi Dench's Wild Borneo Adventure. Current productions include Mission Titanic, which follows the first dive to the Titanic in 14 years, and a Discovery Channel five-part series charting dives to the deepest points of all five oceans, including the deepest dive in history of the Mariana Trench. He is also working on a feature documentary about Stephen Hawking and a VR (virtual reality) experience based around Hawking's vision of black holes. Atlantic Productions is one of the most highly regarded, high-end, factual production companies in the world.

Considered a pioneer in multiplatform storytelling, Geffen is well A recent article in *Wired* Magazine, which features Geffen's work with the late Stephen Hawking, called Atlantic Productions "the pioneering company behind some of the most exciting advancements in VR, 3D and AR (augmented reality) storytelling outside of Hollywood."

known for his work on multiple digital platforms, including projects in 3D, interactive apps and now immersive experiences. Under its umbrella, Atlantic Productions incorporates a group of companies including Zoo (computer graphics) and Colossus (3D). Geffen was also responsible for setting up cross-platform content creator Alchemy Immersive.

Geffen received the first BAFTA awarded for VR storytelling. He speaks regularly at key media and technology forums, including TEDX and Google Zeitgeist. Geffen is a fellow of St Cross College, Oxford and is a professor at NYUAD.

Join Anthony Geffen for discussion following the showing of Apollo 11: The Untold Story 6 pm Wednesday, Jan 1 at Fairmont Orchid. Join Anthony Geffen for discussion following the showing of Judi Dench's Wild Borneo Adventure 11:15 am Thursday, Jan 2 at Fairmont Orchid. Also join Anthony Geffen for discussion following the showing of The Wildest Dream: Conquest of Everest 7:30 pm Thursday, Jan 2 at Fairmont Orchid.

Join Anthony Geffen for a Breakfast Talk Thursday, Jan 2 at Mauna Kea.

Join Anthony Geffen for a special presentation as he shares footage not yet seen from Mission Titanic and Deep Dive, a five-part series charting dives to the deepest points of all five oceans, 6:30 pm Saturday, Jan 4 at Four Seasons.



Deep Planet. Photo © Atlantic Productions





Keeling's work includes a range of material, including blue chip and global landmarks, live broadcasts, observational documentaries and presenter-led pieces. Recently, Keeling was the executive producer for the BBC landmark series Seven Worlds, One Planet, a project four years in the making.

Join Jonny Keeling for discussion following the showing of Seven Worlds, One Planet: Antarctica 11:45 am Wednesday, Jan 1 at Kahilu Theatre; 10:45 am Friday, Jan 3 at Fairmont Orchid; 12:45 pm at HPA Gates; and 12:15 pm Sunday, Jan 5. Join Jonny Keeling for discussion following the showing of Andy's Prehistoric Adventures and Andy's Safari Adventures 2 pm Wednesday, Jan 1 at Parker Theatre; and 9:30 am Saturday, Jan 4 at Parker Theatre.

Join Jonny Keeling for a Breakfast Talk Friday Jan 3 at Mauna Kea and Sunday, Jan 5 at Four Seasons.

Jonny Keeling

Having completed a degree in zoology from Cambridge University and Ph.D. from the University of Bristol, Jonny Keeling went on to pursue a career with the British Broadcasting Corporation (BBC), where he has been able to share his passion for the natural world with audiences worldwide. Keeling has 23 years filmmaking experience in BBC's Natural History Unit. His work includes a range of material, including blue chip and global landmarks—BBC's top-ofthe-line, standout productions, such as Planet Earth II—live broadcasts, observational documentaries and presenter-led pieces.

Keeling was researcher on the longest running wildlife series, the Natural World, assistant producer on David Attenborough's Life of Mammals, producer on Planet Earth and series producer on the Expedition series—productions that documented scientists and explorers as they travelled to uncharted corners of the planet—

including Lost Land of the Volcano and Lost Land of the Tiger. More recently, Keeling was an executive producer on the BBC landmark series Planet Earth II and the executive producer for the BBC landmark series Seven Worlds, One Planet, set to premiere January 18, 2020.

Keeling also heads the Children's Natural History Unit at the BBC, creating wildlife content for all ages, across all platforms, featuring drama, comedy, adventure and the latest in visual effects. As part of this unit, Keeling is executive producer on the popular children's series, Andy's Prehistoric Adventures, in which Natural History Museum employee "Andy" travels back in time and meets dinosaurs and other prehistoric animals.

Join Jonny Keeling for a special presentation and behind-the-scenes look at the making of Seven Worlds, One Planet 7:45 pm Saturday, Jan 4 at Four Seasons.





ANDY'S PREHISTORIC ADVENTURES AND ANDY'S SAFARI ADVENTURES In this popular children's series, *Andy's Prehistoric Adventures*, Natural History Museum employee "Andy" travels back in time and meets dinosaurs and other prehistoric animals.

When Andy starts to work at Safari World, he goes on to travel the planet in a series of eye-popping adventures getting closer to wildlife than he had ever imagined.







Two humpback whales seem to dance underwater in Hawai'i. Photo © Flip Nicklin / Minden Pictures

Humpback whale tail slap. Photo © Flip Nicklin / Minden Pictures

Flip Nicklin

Flip Nicklin is a world-renowned underwater photographer. He has spent his 46-year career specializing

in the photography of marine mammals, and in particular whales and dolphins. Nicklin photographed his first humpback whale off the coast of the Hawaiian Islands in 1979 while working for the IMAX film Nomads of the Deep.

It was at this point his career filming whales emerged. "I thought it was a two-month job. I never expected to spend my life working with whales," said Nicklin.

Now a world premier whale

photographer, author and co-founder of the Whale Trust organization, Nicklin is credited with 20 *National Geographic* feature stories and several books. For the past 30-plus years, he has dived over 6,000 times, often free-diving

remarkable depths of up to 90 feet.

Since 1996, Flip Nicklin has spent his winters researching humpback whales with Dr. Jim Darling and Dr. Meagan Jones off the coast of Maui, Hawai'i. Together they founded Whale Trust, a nonprofit research and

education organization promoting the protection and conservation of the marine environment.

In his most recent book, *Among Giants*, Nicklin is equal parts

photographer, adventurer, self-trained scientist and raconteur. The book combines breathtaking images of whales with behind-the-scenes stories in the making of these images. It highlights throughout the importance of conservation and new advances in our understanding of whale behavior.

In 2012, Flip Nicklin was bestowed one of the highest honors by The North American Nature Photography Association by being named Outstanding Photographer of the Year.

Join Flip Nicklin for a special presentation 4 pm Tuesday, Jan 7 at Four Seasons. Four Seasons. Book signing to follow.

Join Flip Nicklin for a Breakfast Talk Tuesday, Jan 7 at Four Seasons.



Two humpback whales spy hop, Hawai'i.
Photo © Flip Nicklin / Minden Pictures

AMONG GIANTS ALD MANIE



Photo credit: Deirdre Leowinata

Ian McAllister

Ian McAllister is a filmmaker, awardwinning photographer, and author and co-author of 15 books, including Great Bear Wild, The Wild in You, The Great Bear Sea and The Sea Wolves, The Seal Garden and Babies of the Great Bear Rainforest. His images have appeared in publications around the world, including the cover of *National* Geographic Magazine. His images are represented by the National Geographic Image Collection. He is a fellow of the International League of Conservation Photographers and a recipient of the North America Nature Photography Association (NANPA)'s Vision Award.

In 2007, McAllister and wife Karen co-founded Pacific Wild, with a mission to bring awareness and change to conservation issues in the Great Bear through powerful and accessible visual storytelling. Comprising a team of dedicated and talented communication experts, filmmakers, photographers, writers, researchers, scientists and

support staff, Pacific Wild has been at the forefront of pioneering innovative technology for remote wildlife monitoring that enables the capture of never-before observed or documented wildlife behavior.

Ian McAllister and wife Karen were named by *Time* magazine among "Leaders of the 21st Century" for their efforts to protect British Columbia's endangered rainforest and McAllister was awarded the Rainforest Action Network's Rainforest Hero award. He lives with his family on an island in the heart of the Great Bear Rainforest.

Join Ian McAllister for discussion following the showing of Great Bear Rainforest: Land of the Spirit Bear 1:30 pm Wednesday, Jan 1 at HPA Gates; 11:30 am Thursday, Jan 2 at Kahilu Theatre; and 1:30 pm Monday, Jan 6 at Four Seasons.

Join Ian McAllister for a Breakfast Talk Monday, Jan 6 at Four Seasons.

Eric Bendick

Eric Bendick is an Emmy award-winning storyteller, director and producer for Montana-based Grizzly Creek Films. His writing and producing credits include broadcast specials and series for National Geographic, Smithsonian, PBS, The History Channel, Animal Planet, Harvard University, Turner Endangered Species Fund, Microsoft, ABC and the U.S. Department of Defense. Recent productions include Epic Yellowstone, America Wild and The Forgotten Coast: The Return to Wild Florida.

Bendick has led film expeditions to the Florida Everglades, the Grand Canyon, the Great Bear Rainforest, the Alaska Range and to the farthest point from any road in Yellowstone National Park. He holds a bachelor's degree from Brown University and a Master of Fine Arts in Science and Natural History Filmmaking from Montana State University.



Join Eric Bendick for discussion following the showings of Epic Yellowstone: Return of the Predators and Cowboys and Scientists 3:45 pm Thursday, Jan 2 at HPA Gates; and 11:30 am Monday, Jan 6 at Four Seasons. Bendick will share images from the solar eclipse of August 21, 2017 as part of the discussion.

Join Eric Bendick for a Breakfast Talk Saturday, Jan 4 at Mauna Kea and Monday, Jan 6 at Four Seasons.



Photo © Carlton Ward J

Michele and Howard Hall

Michele and Howard Hall are wildlife filmmakers specializing in marine wildlife films and underwater giant format film production. Working as a team, Howard and Michele have produced and directed many television films including productions for National Geographic, PBS and BBC. They are the recipients of seven Emmy Awards and numerous other industry awards and recognitions.

Together the Halls have directed and produced several underwater IMAX films, including Into the Deep, Island of the Sharks, Deep Sea 3D, Coral Reef Adventure and Under the Sea 3D. Their IMAX features have won numerous awards, including Best Picture and Best Cinematography at the Giant Screen Cinema Association Conference.

Howard served as director of underwater cinematography for the Primesco Productions film Lost Worlds, the MacGillivray Freeman film The Living Sea, the IMAX 3D feature Return to Hubble and was underwater cinematographer for MacGillivray Freeman's Journey Into Amazing Caves. Howard was director of underwater cinematography and Michele served as location manager and underwater



Howard Hall films Mother and Calf Humpback Whale in Moorea. Photo © Michele Hall

still photographer for MacGillivray's 3D feature *Journey to the South Pacific* and *Humpback Whales*.

Howard is a member of the Directors Guild and Academy of Motion Picture Arts and Sciences and holds a bachelor's degree in zoology from San Diego State University. Michele is a member of the Woman Diver's Hall of Fame and the Academy of Television Arts and Sciences, is a registered nurse and holds a bachelor's degree in health sciences.

Join Michele and Howard Hall for discussion following a showing of Humpback Whales 11:30 am Thursday, Jan 2 at Kahilu Theatre; 12:45 pm Thursday, Jan 2 at Fairmont Orchid; and 3 pm Monday, Jan 6 at Four Seasons.

Join Michele and Howard Hall for a special presentation sharing imagery and stories from their IMAX productions 3:00 pm Monday, Jan 6 at Four Seasons.

Michele with the IMAX 2D underwater camera system in Misool, Raja Ampat, Indonesia. Photo © Howard Hall



Tom Mustill

Tom Mustill is an Emmy-nominated wildlife and science filmmaker. Mustill has directed numerous award-winning films including the Emmy-nominated Giraffes: Africa's Gentle Giants, which played to the European Parliament; The Bat Man of Mexico; the RTS-nominated How To Win The Grand National for Oxford Scientific Films; the multi, award-winning and Grierson-nominated Natural World Special: Kangaroo Dundee; and two episodes of the award-winning series Inside Nature's Giants for Windfall Films.

Through his production company Gripping Films, Mustill strives to create innovative and entertaining films, seeking to tell relevant and important stories about a complex world. He was selected as a *Broadcast* magazine "Hot Shot" for his quick rise to director of high profile, innovative and landmark television programs and was shortlisted as a TED fellow for pushing the boundaries of documentary television.

In 2015, a humpback whale breached and landed on Mustill and a friend while they were in a kayak. The experience inspired in Mustill a curiosity to learn more about humpback whales in general and to track down this whale in particular; in part to understand whether the

action had been intentional or accident, leading to his most recent production, *Humpback Whales: A Detective Story.*

Tom Mustill holds a Bachelor of Science in Biology from Cambridge University.

Join Tom Mustill for discussion following the showing of the film Bat Man of Mexico 12:30 pm Wednesday, Jan 1 at Parker Theatre; and 10:45 am Wednesday, Jan 8 at Four Seasons. Also join Tom Mustill for discussion following the showing of the film Humpback Whales: A Detective Story 6 pm Wednesday, Jan 1 at Kahilu Theatre; 8 pm Thursday, Jan 2 at Kahilu Theatre; and 6:15 pm Tuesday, Jan 7 at Four Seasons.

Join Tom Mustill for a Breakfast Talk Saturday, Jan 4 at Mauna Kea and Wednesday, Jan 8 at Four Seasons.

Benjamin Keller

Benjamin Keller is an award-winning filmmaker based out of Portland, Maine. Keller started a production company in 1994 and more recently formed Keller Media Works, a full-service media and marketing company working across all formats, including corporate productions, broadcast, commercial and social media. His clients include the Marine Retailers Association of

the Americas (MRAA), The Maine Windjammers Association, *Outside Magazine* and *Outside Television*.

Keller holds a bachelor's degree in Medieval and Renaissance Studies from New York University.

Join Benjamin Keller for discussion following the showing of the film Just One Step 9:30 am Thursday, Jan 2 at Kahilu Theatre; 6 pm Friday, Jan 3 at HPA Gates; and 9:30 am Tuesday, Jan 7 at Four Seasons.



Mimi deGruy

Mimi Armstrong deGruy is a Santa Barbara-based documentary filmmaker. In her early career, deGruy worked for CNN, Turner Broadcasting's series Portrait of American and the PBS series The Infinite Voyage. Later, in collaboration with her late husband, Mike deGruy, she produced awardwinning television programs for PBS, BBC, National Geographic, Discovery Channel and other broadcaster media.

Armstrong deGruy holds a Bachelor of Arts from Yale University. The mother of two children, deGruy is also an enthusiastic supporter of and volunteer for nonprofits that support environmental causes and children's education.

Please join Mimi deGruy for discussion following the showing of Diving Deep: The Life and Times of Mike deGruy 6 pm Thursday, Jan 2 at Kahilu Theatre; and 7:45 pm Tuesday, Jan 7 at Four Seasons.

Phil Arnone

Phil Arnone established himself early in his career as a producer and director of high-quality television programming while working for KGMB in Honolulu. More recently, he directed and produced a series of exceptional, madefor-TV documentaries, in conjunction with KGMB, and written by Robert Pennybacker.

These films feature the history and culture of the islands along with people and heroes whose names have become household words in Hawai'i. They include: Hōkūle'a: Passing the Torch; Eddie Aikau - A Hawaian Hero; Brothers Cazimero; Duke Kahanamoku - Hawai'i's Soul; IZ - The Man Behind The Music; and Jim Nabors' Impossible Dream.

Please join Phil Arnone for discussion following the showing of Hōkūle'a:
Passing the Torch 1:30 pm Wednesday,
Jan 1 at Kahilu Theatre. Also join
Phil Arnone for discussion following
the showing of Duke Kahanamoku:
Hawai'i's Soul 12:15 pm Friday, Jan 3 at
Fairmont Orchid.





Beamer Solomon Hālau O Po'ohala. Photo credit: Beverly Warns

Beamer Solomon Hālau O Po'ohala

Leiomalama Tamasese Solomon is the sixth-generation cultural practitioner of the Beamer Solomon's 158-year hula legacy. Leiomalama is the hula mua, or lead dancer and soloist of Hālau O Poʻohala. The Hālau O Poʻohala dates its birth to the reign of King David Kalakaua.

The hālau's hula master (loea) and cultural keeper of the Beamer Solomon method of dance is Leiomalama's Aunt,

Hulali Solomon Covington. Hula Loea Covington's sister, Malama Solomon, is the hālau's kakau 'olelo (historian). Their colleague and hālau assistant, Kumu Keala Ching, is the founder of the Nā Wai Iwi Ola Foundation, whose mission is dedicated to the preservation and perpetuation of hula.

Please join the Beamer Solomon Hālau O Poʻohala as they share hula following showing of the film The Hula Within 4 pm Friday, Jan 3 at Kahilu Theatre.

Ari Bernstein

Ari Bernstein is a Hawai'i-based filmmaker, founder of Lalamilo Productions and director of the Digital Media program at Hawai'i Preparatory Academy (HPA).

Bernstein began working with Hālau O Poʻohala on a series of videos documenting the 155-year cultural legacy of the Beamer-Solomon halau. It was through this work that the idea for *Līhau's Journey* was born and, after that, *The Hula Within*.

Bernstein received his Master of Fine Arts in filmmaking from the University of California (USC).



Join Ari Bernstein and Leiomalama Tamasese Solomon for discussion following the showing of The Hula Within 4 pm Friday, Jan 3 at Kahilu Theatre.



California's bold plan in creating an integrated network plan based around the first, high-speed rail line in the country will make fast, frequent and reliable trains an everyday reality for people all over the state.

The centerpiece of California's plan is the first true 220-mph, high-speed line in the United States. The initial, 170-mile segment through the Central Valley will act like a high-speed backbone, allowing for faster trips between many destinations. Once the full system is built, San Francisco and Los Angeles will be less than three hours apart on a comfortable and spacious train.

California's high-speed line will provide multiple benefits to the state:

- It will provide an economic boost, creating an estimated 31,300 fulland part-time jobs by 2029 with an estimated \$6 billion already injected into the economy.
- It will provide significant environmental benefit: direct reduction of carbon emissions; indirect reduction of carbon emissions through the reduction in the amount of concrete required for additional roadway capacity, expansion and maintenance over time; reduction of runoff from roadways; and reduction

of the land-use cost of an automobileonly focused system, freeing future land use for needs other than roadway expansion and parking space.

- The line will be powered entirely by renewable energy—solar, wind, geothermal and bioenergy—and is conservatively projected to reduce greenhouse gas emissions by about 1.5 million metric tons each year.
- The high-speed line will connect UC Merced, Fresno State and California State University-Bakersfield—and more than 325,000 students—to each other and to the Bay Area, opening up new opportunities for collaboration.
- Los Angeles, San Francisco and San Jose rank among the top five most gridlocked cities in the nation. The new line will cut through these delays and offer fast, frequent and reliable service between popular destinations across the state.
- The line will not only provide faster and less stressful travel—connecting people into the heart of each city—but will also be much safer. While there were more than 35,000 deaths on U.S. highways in 2015; over the Japanese Shinkansen's (bullet train) 50-plus year history—carrying over 10 billion passengers—there have

been no passenger fatalities due to train accidents such as derailments or collisions, despite frequent earthquakes and typhoons.

Like any massive infrastructure project, the line requires substantial, up-front investment. But rail projects all over the world have shown, again and again, that the money is wisely invested. High-speed lines deliver big, near-term returns across a wide range of metrics. And they keep delivering for the long term.

While it's true that California highspeed rail faces significant challenges, this difficulty does not indicate that the project itself is unworthy or a poor investment. As the first state in the nation to attempt high-speed rail, California should not be surprised to encounter unforeseen situations that increase budget or construction time.

Our nation's Interstate Highway System was projected to cost \$25 billion and take 12 years to build; it took 35 years and \$114 billion (in 1956 dollars). Spain's AVE high-speed system was popularly declared a boondoggle and an assured failure, but today it's wildly popular and an asset the country could not imagine itself without.

AN INTEGRATED, STATEWIDE VISION California began investing heavily in rail and public transit in the early 1990s. It now has the most advanced, forwardthinking transportation system in the nation, which is coordinated and tied together by a statewide rail plan.

A key takeaway from California's experience is having a big-picture plan is vital, because it supplies a tool for creating synergies throughout the system.

For example, the Bay Area's commuter rail service, Caltrain, is now being upgraded between San Francisco and San Jose. As part of the upgrade, European-designed, electrified trains will replace diesel-hauled trains. That will mean faster trips and more frequent departures. High-speed trains will share the tracks once a new tunnel from Gilroy to the Central Valley is completed.

Similar work is underway in Los Angeles, where a 45-mile rail corridor from Burbank to Anaheim will be upgraded to improve Amtrak and Metrolink service and prepare for highspeed trains.

In other words, the benefits ripple out. Building a high-speed line incentivizes upgrades to older tracks, and the upgrades aren't limited to the line itself. High-speed rail depends on and improves every other form of transportation across a state, especially commuter rail and local transit systems. And recent research shows that improving transit service is a big boost to local economies.

There were more than 35,000 deaths on U.S. highways in 2015; over the Japanese Shinkansen's (bullet train) 50-plus year history—carrying over 10 billion passengers—there have been no passenger fatalities due to train accidents such as derailments or collisions, despite frequent earthquakes and typhoons.



.Guest Speakers and Presentations

Seeing things from a big-picture perspective makes that possible. It's no longer about how the segments of a system work in isolation. It's about how they work as part of a broader plan—how each segment fits into and improves the whole.

The evidence from around the world is clear. For example, when high-speed trains began operating between Madrid and Seville (330 miles), the percentage of trips by rail increased from 16 percent to 51 percent. For the trip from Paris to Lyon (290 miles), the percentage jumped from 40 to 72 percent.

BUILDING IN PHASES

California is taking the Phased Network Approach to its high-speed rail system, meaning it will be constructed in segments over time, in coordination with upgrades to other systems. Each new segment will integrate the highspeed line more fully with conventional lines and transit systems already in use.

The first, 170-mile segment of high-speed line—the backbone of the whole system—is now being built in the Central Valley. It is the keystone of the statewide plan and it will feature dedicated, grade-separated tracks designed for 220-mph operations.

Coordinated, simultaneous improvements to existing rail systems—including the Altamont Commuter Express, the Capitol Corridor and the San Joaquin service—will provide expanded and improved rail service throughout northern California, connecting the Central Valley highspeed line with the San Francisco Bay Area and Sacramento regions.

CALTRAIN ELECTRIFICATION— SAN JOSE TO SAN FRANCISCO Existing Caltrain service from San Jose to San Francisco will be electrified and upgraded, allowing high-speed trains to share tracks with new, high-performance commuter trains, which is key to linking San Francisco and Silicon Valley to the rest of the state's rail network.

Connecting the Central Valley directly to Silicon Valley and San Francisco will require tunneling through a mountain range. The northern point of this construction will be San Jose. Trains will continue from there, on the upgraded Caltrain corridor, to San Francisco.

LOS ANGELES AREA
AND SOUTHERN CALIFORNIA
CHSRA is coordinating with the
Los Angeles County Metropolitan
Transportation Authority (LACMTA) and
other agencies on several projects that
will improve service in the Los Angeles
and San Diego areas. Specifically,
LACMTA is working on an analysis of the
Metrolink Antelope Valley commuter line
that provides a path from Palmdale into
Los Angeles' Union Station. Upgrading
that will ensure sufficient Metrolink
commuter service to meet the needs of
the high-speed rail system as it reaches

CONNECTION TO DESERTXPRESS At Palmdale, the proposed 63-mile High Desert Corridor freeway will link Palmdale with Victorville, which is the southern terminus of another planned high-speed rail project—the DesertXpress to Las Vegas.

The expressway could include high-speed rail tracks linking the DesertXpress with California's main high-speed rail system.

CENTRAL VALLEY SPINE

The 170-mile Central Valley line is under construction and will be the spine of California's high-speed rail system. It, along with improvements to connecting

Massive infrastructure projects create a catch-22. It is difficult to build support for a long-term infrastructure project unless there are tangible benefits to taxpayers and there are usually few benefits until the project is complete. That isn't the case in California: ongoing upgrades to connecting Amtrak and commuter lines will slash travel times and deliver benefits long before the full, high-speed line is complete.

services, could be in service by 2028.

The Central Valley line, running from Bakersfield to Merced, has been mocked as a "train to nowhere" because of its distance from the coasts. But mountain ranges make it the only place to demonstrate the power of 220-mph trains in California. There are excellent reasons for starting there.

Massive infrastructure projects create a catch-22. It is difficult to build support for a long-term infrastructure project unless there are tangible benefits to taxpayers and there are usually few benefits until the project is complete. That isn't the case in California: ongoing upgrades to connecting Amtrak and commuter lines will slash travel times and deliver benefits long before the full, high-speed line is complete.

Connecting the Central Valley to the Los Angeles and Bay areas with high-speed rail is a monumental engineering feat. It will require tunneling through the mountains of the California Coast and Transverse Ranges. But in the meantime, the Central Valley will demonstrate true high-speed rail in the U.S. and allow service to initiate via connections to existing transit options.

CALTRAIN

Caltrain—the commuter rail system that serves San Jose, the Silicon Valley and San Francisco—is being modernized. The

upgrades will not only improve service for commuters, but are an integral part of California's high-speed rail project.

Even without its impact on the highspeed rail system, Caltrain's innovations and upgrades make it one of the most important transportation projects now underway in the U.S. The innovations include:

- High-capacity, modern, electrified train sets that start and stop faster and reduce harmful emissions.
- Fifty-one miles of electrified tracks that accommodate high-speed trains, in addition to local and express commuter trains.
- A coordinated schedule that creates effortless connections between the systems and maximizes ridership.
- New platforms that allow level boarding, which is more convenient for all passengers and is critically important for the elderly and people with strollers and luggage.

These and other improvements will make Caltrain the first truly modern passenger rail line in the U.S. Ridership on Caltrain is expected to nearly double after the completion. Ridership has already nearly tripled since 2004.

Lessons for Other Projects

Caltrain's project offers lessons that are directly relevant to other transportation



Palmdale.

projects across the country.

First: The critical importance of investing in new, modern trainsets. Electric trains, which will replace Caltrain's current diesel trains, can accelerate and decelerate faster than existing diesel locomotives to provide faster, more frequent service. Electric trainsets also produce less noise and air pollution than diesel locomotives and they will lower Caltrain's fuel costs while increasing revenue (due to an increase capacity in ridership). Caltrain expects electrification to reduce carbon dioxide emissions by 176,000 metric tons annually by 2040.

Second: The importance of leadership, collaboration and resourcefulness can not be underestimated.

For example, Caltrain nearly scaled back its service in 2011 due to a budget crisis. At that point, it also hadn't yet identified funding for electrification. Simultaneously, the California High-Speed Rail Authority (CHSRA) faced opposition in planning a route from San Jose to San Francisco.

In response, U.S. Representative Anna Eshoo, State Senator Joe Simitian and Assembly member Rich Gordon crafted a compromise proposal: Caltrain electrification would be partially funded with money for high-speed rail; in return, high-speed trains could share the tracks.

LOS ANGELES AREA

L.A.'s Metrolink commuter rail service will upgrade tracks to become part of California's high-speed rail system.

The Los Angeles Urban Mobility Corridor—which connects Burbank, Los Angeles and Anaheim—has a segment of railroad tracks that is among the most important and heavily used in the U.S. It facilitates shipments through two of the nation's busiest cargo ports (Los Angeles and Long Beach) and it is part of the nation's second busiest Amtrak line. Metrolink, the region's commuter rail service, also uses it, and it's set to become a vital segment of the state's high-speed rail system.

A variety of trains—freight, passenger, commuter and high-speed—will share the narrow stretch of land through a dense urban area. Recent planning by local, state and federal agencies has focused on upgrading the infrastructure to accommodate these needs.

One result is that the Metrolink tracks are being electrified. That will allow commuter trains to start and stop faster, meaning they'll run more frequently while cutting carbon emissions. High-speed trains will also use these new electrified tracks, making it possible to take a single-seat ride on a high-speed train all the way from the Bay Area into LA.

LOS ANGELES UNION STATION
Los Angeles Union Station will be
upgraded to allow trains to pass through
from north to south. Another focus of
city- and state-level planning is the
Link Union Station (Link US) project
in downtown LA. Link US will improve
transportation options in the region in
some important ways.

Link US will upgrade Union Station's passenger concourse into a world-class facility, with inviting waiting areas and retail amenities. It will also significantly increase its rail service capacity, shorten train wait times and cut greenhouse gas emissions.

Los Angeles Union Station is currently a "stub"—there's only one way in and out. Link US will give the station "through" tracks, allowing trains to pass through the station without reversing.

The integration of high-speed rail at Union Station is vital to the region's transportation economy, given that it's the connection point for Metrolink, Amtrak and local transit.

The exciting and innovative upgrades to LA's transportation system offer at least four takeaways:

First: Deep planning—like California's 2018
State Rail Plan—is key to creating a solid transportation system. Coordination and planning make the difference between having an adequate system and one that

helps build a vibrant, sustainable economy.

Second: High-speed rail drives upgrades, innovations and investments across a whole transportation system. It's never about high-speed rail alone but integration with the whole; making every element—trains, tracks, stations, local transit systems—work better.

Third: Chicago's own Union Station has the same role and potential as the facility in Los Angeles. It is critical to the whole region's transportation needs— including the future of high-speed rail—and it equally needs to be modernized. Doing so will help give the Midwest a competitive advantage and distinguish the region on the global stage, as California is now doing.

Fourth: Nothing happens without leadership and a strong commitment to forward-thinking investments. That has been the story in California. It will be the same for any substantial transportation project anywhere.

Rick Harnish

Rick Harnish is co-founder and executive director of the Midwest High-Speed Rail Association (MHSRA), now known as the High-Speed Rail Association, a member-

supported non-profit organization advocating for fast, frequent and dependable trains linking the entire Midwest. The association is the oldest and largest high-speed rail advocacy organization in the U.S.

Harnish's perspective on trains and transportation policy has appeared in

Bloomberg, The Wall Street Journal, USA Today, Politico, Governing, the Chicago Tribune, Chicago Magazine and other publications.

Harnish is a leading force in the transportation policy reform movement. Through the MHSRA, Harnish has educated thousands of government and business leaders as to the tangible economic and other benefits of rail and helped elevate the discussion of high-speed rail and intercity passenger rail on the national stage. He speaks regularly to community and business groups across the Midwest, has been an expert witness before Congress and the Illinois General Assembly, and consults with decision makers at all levels of government.

Join Rick Harnish for a presentation titled California High Speed Rail: Benefits to California and Beyond 12:45 pm Thursday, Jan 2 at HPA Gates; and 3:45 pm Sunday, Jan 5 at Four Seasons.



. Guest Speakers and Presentations

Marc Lammers, Ph.D.

Dr. Marc Lammers is the research coordinator for the Hawaiian Islands Humpback Whale National Marine Sanctuary. He has studied marine mammal behavior and ecology for the past 22 years and specializes in marine bioacoustics.

Dr. Lammers previously worked as a principal investigator for the National Oceanic and Atmospheric Administration (NOAA) at the Pacific Islands Fisheries Science Center in the Coral Reef Ecosystem Program and served on the Sanctuary Advisory Council as the research seat.

Dr. Lammers has authored more than 60 scientific papers and book chapters, and co-edited the book *Listening in the Ocean*. He actively collaborates with other researchers, both in Hawai'i and around the world, and sits on a number of professional working groups.

Lammers received his bachelor's degree and doctorate from the University of Hawai'i at Manoa.

Join Drs. Lammers and Pack for a presentation titled Humpback Whale Mysteries and the Science Being Used to Solve Them 11:15 am Friday, Jan 3 at HPA Gates.

"HOW BIG IS A
HUMPBACK WHALE?"
Walk inside NOAA's 44-foot,
life-size inflatable whale. NOAA
naturalists are available to present
and answer questions as you tour
inside the whale and learn about
whale anatomy and behavior. Due
to the educational content level,
parental guidance is suggested.

Please join NOAA for an inflatable whale exhibit 10 am-6 pm Jan 2-4 in the Fairmont Orchid - Festival Presentation Room 1. The Festival Presentation Room 1 is located across the hall from film screenings.

HUMPBACK WHALE MYSTERIES AND THE SCIENCE BEING USED TO SOLVE THEM

In January, 2016 many of Hawai'i's ocean users began to notice there were fewer whales than in previous years during the same time. This marked the start of an unusual period in the annual occurrence of whales in Hawai'i. Scientists have been working to better understand the observed trends as well as the underlying causes.

What the function of the iconic song produced by humpback males might be is the subject of on-going research by Drs. Marc Lammers and Adam Pack. This question will be explored during the presentation through a showing of the South Florida PBS production *Changing Seas - Mystery of the Humpback Whale Song*. This film features the research of Dr. Marc Lammers from the Hawaiian Islands Humpback Whale National Marine Sanctuary and Dr. Adam Pack from the University of Hawaiii at Hilo and will be followed by a question and answer session.

Adam A. Pack, Ph.D.

Dr. Adam A. Pack is a professor at University of Hawai'i (UH) at Hilo with a joint appointment in the Departments of Psychology and Biology. In this capacity, Dr. Pack serves as chair of the Psychology Department; a cooperating faculty member of UH Hilo's Master of Science Degree Program in Tropical Conservation Biology and Environmental Science; and as an affiliate and cooperating faculty member of UH Manoa's Psychology and Biology Departments and Marine Science Graduate Program.

In 2008, Dr. Pack developed the UH Hilo Pack Marine Mammal Research Laboratory. His research program focuses on scientific studies of marine mammal behavioral ecology and cognition. Dr. Pack is co-founder and current president and director of The Dolphin Institute, a not-for-profit, Hawai'i-based organization dedicated to dolphins and whales through education, research and conservation. He is also the co-creator of the UH Hilo's Listening Observatory for Hawaiian Ecosystems (LOHE) Bioacoustics Laboratory; former chair of the Hawaiian Islands Humpback Whale National Marine Sanctuary Advisory Council and serves as associate editor of the journal Marine

Mammal Science.

For more than 30 years, Dr. Pack has been conducting research on dolphin sensory perception, cognition and communication abilities as well as humpback whale social organization and habitat use, migratory and residency patterns, social behavior and communication systems in the Hawaiian breeding grounds and Alaskan feeding grounds.

Over the course of his research career, Dr. Pack has published over 60 papers, book chapters and reports and is frequently invited to present his work. Dr. Pack's research has been featured in *The New York Times, The Economist* and *National Wildlife*, as well as in television documentaries including National Geographic's *Humpbacks: Inside the Pod* and South Florida PBS's *Mystery of the Humpback Whale Song*.

In 2017, Dr. Pack was the UH Hilo Award Recipient of the University of Hawai'i Board of Regents Award for Excellence in Teaching. Dr. Pack holds a bachelor's degree in botany from Brandeis University; and a master's degree and doctorate in psychology, human and animal cognition, from UH Manoa.



Adam Pack preparing for videogrammetry of female humpback whale. NMFS Permit 1071.



The Palmyra Program

Isolated and wild, Palmyra Atoll lies just north of the equator, 1,000 miles south of Hawai'i. Comprising 25 islets covering 580 acres, the atoll is fringed by lagoons and 15,000 acres of sprawling reefs that support 176 species of coral and a complex web of marine life.

The Nature Conservancy (TNC) purchased Palmyra in 2000 to protect the marine wilderness found there and establish a platform for applied science. After retaining the atoll's largest islet as the base for a research facility, it transferred the remainder of the land to

the U.S. Fish and Wildlife Service (USFWS), which in 2001 established Palmyra and its surrounding waters as National Wildlife Refuge. A final layer of protection was added in 2009 when Palmyra was included in the 13-million-acre Pacific Remote Islands Marine National Monument, one of

the world's largest marine protected areas (MPAs).

The goals of TNC's Palmyra Program is to protect and restore Palmyra while also conducting science that can be used to help understand, protect and restore other tropical and marine environments around the world.

While still degraded to some degree from the lingering impacts of use during World War II, Palmyra presents an opportunity to understand how coral reefs respond to current levels of climate stress in the absence of other stressors. Compared to tropical island ecosystems that are inhabited and heavily used, plus given the comprehensive restoration efforts underway, the coral reef ecosystem

on Palmyra is relatively pristine and unchallenged. Facing less stressors to begin with, these coral reefs have been able to better weather recent warming events than reefs elsewhere and appear to be more resilient to the degree of climate pressure faced thus far.

What this means is that Palmyra provides a baseline in terms of how tropical coral reefs and a tropical, low-lying island response to climate impacts when not also faced with added external stressors. In heavily populated areas, reefs are already under

stress due to impacts from sedimentation (resulting from land disturbed during development); from heavy fishing practices, both commercial and recreational; and from impacts associated with nutrients and pollutants going into the water.

Reefs already under these external stressors appear to be more vulnerable to current levels of climate impact. But, it becomes difficult to determine and isolate which of these

factors contribute most to reef decline, relative to warming, as they collectively

weaken coral reef ecosystems.

While scientific research at Palmyra has been ongoing since 2005, producing 170 scientific studies, a new, three-pillar research and conservation agenda is underway. This three-pillar approach focuses on: rainforest restoration and the conservation of the island ecosystem; coral reef resilience; and sustainable fisheries and open-ocean MPAs.

RAINFOREST RESTORATION
Conservation efforts on the island itself



Penguin Spit at Palmyra atoll. In healthy reefs, fish use every habitat type, including places waves are crashing close to shore. All photos this page © Kydd Pollock / The Nature Conservancy

are focused on rainforest restoration ('realignment'). Rats were eradicated from Palmyra in 2011, igniting a resurgence of bird, crab and plant life. As a next step, the coconut palms are being removed and the rainforest replanted—actions that will increase seabird habitat and maximize the

nutrient cycle that fuels coral growth and, scientists hope, its resilience to current and future climate-related impacts.

As part of the restoration effort, scientists are studying a means to eliminate Palmyra's *Culex*

quinquefasciatus, or southern house mosquito with the larger goal of developing a similar suppression technique for Hawai'i, where *Culex* are transmitting lethal diseases to endangered native forest birds. A population of Asian tiger mosquitoes unexpectedly disappeared after the

rats were eradicated, an outcome that could also open avenues for controlling mosquitoes and mosquito-borne diseases elsewhere.

In more detail, the Palmyra Atoll Rainforest Reef Resilience Project (PARP) is underway to restore the native rainforest canopy as a means

to protect the atoll's reef and increase its resilience to the impacts of climate change. Through this, the project is also working to protect habitat for seabirds, as it appears the nutrients seabirds bring from the ocean, and deposit as guano on the island.



support plant growth. This appears to benefit the ecosystem in a number of ways, including increased biodiversity; increased plant growth on the island; and increased biomass of phytoplankton in the nearshore waters off the island, which has been shown to lead to greater biodiversity within the coral reef



Fairy (or white) terns are small seabirds

found throughout the Pacific.



School of manini fish in staghorn coral, Palmyra Atoll. Photo © Kydd Pollock / The Nature Conservancy

ecosystem and greater overall coral coverage.

With this project, TNC is also working to replace the non-native coconut palm dominance with native species, primarily because very few seabirds roost in coconut palms.

CORAL REEFS

The Palmyra Project is working to identify what factors are keeping the reef on Palmyra healthy with the object of sharing those lessons to help restore reefs in other regions.

Palmyra Atoll is one of the world's only places that has both a healthy coral reef ecosystem plus the facilities and capacity to support experimental research. Other locations have research facilities, but not healthy reefs free from other man-made stressors. Palmyra provides a rare and important opportunity to effectively act as a living laboratory and control environment for scientists to ask and answer some of the most urgent questions in coral reef conservation today.

SUSTAINABLE FISHERIES AND OPEN OCEAN MPAS

The third pillar of the Palmyra Project's science agenda—sustainable fisheries and open-ocean MPAs—focuses on the surrounding marine national monument. "We want to explore what we can learn from having a laboratory in the

middle of a marine monument and how we can increase our understanding of open ocean MPAs and their value to the world," notes TNC's Director of Science Dr. Alex Wegmann.

The marine national monument around Palmyra extends for 50 nautical miles from the shoreline. Because Palmyra's waters are rarely fished, Palmyra provides a baseline in the study of fish species commercially harvested; fish species harvested for subsistence; and fish species typically fished recreationally in association with tourism throughout the Indo-Pacific region. The program also hopes to understand the degree to which commercial fishermen—which often hover at the border of the reserve to take advantage of increased fish stocksillegally fish within the boundaries of the MPA.

"Palmyra's mission is evolving," notes Palmyra Program Director Chad Wiggins. "We want to make sure the science is aligned and that we are probing issues of significance—not just for Palmyra, but for the world's tropical oceans."

Outside of Palmyra, areas that have established MPAs—such as the island of Palau and Apo Island in the Philippines—have seen significant economic benefit in terms of increased fish stocks and tourism revenue as a result. Palmyra provides a living laboratory to study exactly how MPAs allow fish stocks to rebound and thrive.

Chad Wiggins

Chad Wiggins serves as The Nature Conservancy's Palmyra Program Director. The program goal is to continue to restore and protect Palmyra while also conducting science that can also be used to better understand, protect and restore tropical and marine environments around the world.

Palmyra provides a rare and important opportunity to act as living laboratory and control environment for scientists to study how tropical coral reefs and a tropical, low-lying island respond to climate impacts without the added external stressors experienced in populated areas. Wiggins' focus is on identifying the factors that contribute to the healthy coral reef ecosystem in Palmyra in order to share this baseline knowledge and understanding with other islands in the Pacific. Wiggins previously served as the director of The Nature Conservancy's Hawai'i Island Marine Program.

As part of that role, Wiggins worked with Kona's Ka'ūpūlehu community for 10 years to help understand changes in fish abundance and coral health. In 2016, the community requested, and the state approved, a 10-year marine

reserve, or rest area, along a 3.6-mile stretch of coastline. Early studies show the reserve to be effective in the regeneration of fish populations.

At Kiholo, Wiggins and his team managed 6.5 acres of Kona fishpond estuarine habitat. In partnership with local, non-profit Hui Aloha Kiholo, the Hawai'i State Parks, the Ala Kahakai National Historic Trail and thousands of volunteers and students, the team removed more than 200 cubic yards of invasive vegetation and rebuilt 560 feet of traditional rock walls.

Wiggins also helped establish the South Kohala Coastal Partnership. He volunteers as a scientific member of the West Hawai'i Fishery Council, which in collaboration with agencies, universities and local communities, has prohibited spearfishing while using SCUBA equipment and established protections for sharks. Wiggins also serves on the board of Hui Aloha Kiholo.

Chad Wiggins holds a Bachelor of Marine Science from the University of Hawai'i.

Join Chad Wiggins for a presentation about coral reefs and the Palmyra Program 2:15 pm Friday, Jan 3 at HPA Gates.

Andrew Cahill

Andrew Cahill is a Peabody Award-winning editor and producer. A principal at Cahill Bros., a New York and LA-based production company, Cahill brings 20 years of production and post-production experience to his work as well as 25 years of management experience within the field. His clients include CNN, ABC, Disney, Time, UBS and McKinsey.

Current productions include the

anthology *Welcome to My Dream*, a WWII drama *Fighting Mad*, an off-broadway musical and a short film about Polar Medal recipient Myrtle Simpson.

Please join Andrew Cahill for discussion following the showing of the film Myrtle Simpson 9:45 am Friday, Jan 3 at HPA Gates; 3:45 pm Friday, Jan 3 at Parker Theatre; and 9:30 am Monday, Jan 6 at Four Seasons.



The sea cliffs of Molokai are bathed in the golden light of the late afternoon sun as Makali'i sails on her way to Honolulu and then on to Mokumanamana. Photo credit: Atsushi Sawada

2020 Voyager Exhibit: Makali'i to Mokumanamana June, 2019

The Voyager Exhibit forms the basis for talks and discussions about voyaging each year during the festival. It is an

interactive tool and basis for the discussions that take place during the festival as well as for the school visits that occur before and after the event. Films and programs weave together with the exhibit, as does the exhibit with the films and programs in the festival.

The 2020 Voyager Exhibit Photo credit: Chelsey Dickson focuses on the June, 2019 voyage of Makali'i to Mokumanamana. with the Makali'i is the voyaging canoe based allowing on Hawai'i Island and run by the particity organization Nā Kālai Wa'a. Members of Mokum Nā Kālai Wa'a have been integral to the Mok Voyager Exhibit from the beginning, and Northways of Mokum Northways of Northways of Mokum Northways of Mokum Northways of Northways of Mokum Northways of N

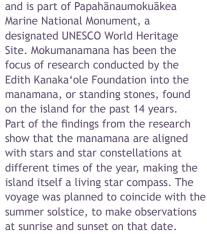
so it is fitting that the exhibit should focus on this defining voyage of Makali'i as part of our 10th year.

This voyage is significant to Makali'i for a number of reasons. It marked the culmination of the three-year Honauna Ola project, initiated by Nā Kālai Wa'a to train and instruct a new generation of voyagers. It was provisioned entirely by food grown on island and by school gardens.

And, the voyage itself was undertaken in partnership

with the Edith Kanaka'ole Foundation, allowing crew to observe and participate in the research underway on Mokumanamana.

Mokumanamana lies within the Northwestern Hawaiian Islands



After an extensive dry dock in preparation for the voyage, Makali'i was launched back into the water June 1, 2019. Departing June 7, 2019, the first leg of the voyage was from Kawaihae, Big Island to Hāna, Maui. The second from Hāna, Maui to Honolulu (Sand Island), O'ahu. And, the final leg from Honolulu to Mokumanamana. In conjunction with the Hoea Moku project instituted by Nā Kālai Wa'a, and in collaboration with school gardens on the

island, Makali'i was provisioned entirely with food grown and harvested on the island.

The exhibit shares imagery from the voyage itself, the preparation that went into the voyage, the time spent on the island and the island of Mokumanamana itself. The exhibit also focuses on the effort by school gardens and community in growing food and material to provision the canoe and on the understanding of non-instrument weather forecasting and navigation. A Star Compass will be on display and attendees will have the opportunity to learn about its use as a tool for navigators during scheduled morning talks, as well as the connection between the star compass and the manamana or standing stones found on Mokumanamana.

The exhibit formally opens with a ceremony 4 pm Jan 1 and will be on display at Kahilu Theatre from Dec 12 through Jan 27. Exhibit talks are 10 am Jan 2. 3 and 4.







Chadd 'Onohi Paishon, Nā Kālai Wa'a and Makali'i

Photo © Na'alehu Anthony

Chadd 'Onohi Paishon, along with Shorty Bertelmann, is one of the five Hawaiian Master (Pwo) Navigators who were inducted by Master (Pwo) Navigator Mao Piailug, the Micronesian navigator who brought the knowledge of wayfinding back to Hawai'i. He is also senior captain of Makali'i and helps to run Nā Kālai

Wa'a, the organization that built and manages the voyaging canoe Makali'i on Hawai'i Island. In this capacity, he participates in the wa'a leadership, meeting regularly with the other Pwo captains.

Paishon first sailed on Hōkūle'a in 1984, was a crewmember on the 1992 voyage of Hōkūle'a to Tahiti and subsequently joined Clay

and Shorty Bertelmann's efforts in the construction of the 54-foot voyaging canoe Makali'i, sailing on her maiden voyage in 1995. Since then, Paishon has continued to captain Makali'i, overseeing the operation of the canoe and helping to run the educational programs organized on Makali'i by Nā Kālai Wa'a. Paishon helped to captain Hōkūle'a on several of the Worldwide Voyage (WWV) legs in 2015, before returning to the Big Island, where he helps to run the other programs maintained by Nā Kālai Wa'a. These include Hoea Moku, Project Holokai and Honauna Ola. Paishon is joined by his wife and navigator Pomai Bertelmann, by Master (Pwo) Navigator Shorty Bertelmann and other members of Nā

Kālai Wa'a in these efforts.

Hoea Moku is the canoe sustainability project currently housed at Nā Kālai Wa'a's 10-acre parcel in Hawi. The project was established to explore how modern-day voyagers could use the canoe plants (kanu wa'a) found on Hawai'i Island to enhance and

perpetuate the practice of canoe (wa'a) construction and voyaging. The project's goals are to educate crew, ohana, and community on the use and cultivation of canoe plants on a small scale at the Hoea Moku property in Hawi and then on a larger scale within the natural forest. The project offers crew, ohana, and community the

opportunity to learn about the use and care of these plants.

Project Holokai provides opportunities for Hawai'i Island students to experience the canoe and attain an understanding of open-ocean voyaging and non-instrument navigation through all seasons. The captains and crew of Makali'i meet through the year with a cohort of 30 students, providing youth with hands-on canoe activities to connect them with the wa'a and prepare for a coastal sail at the culmination of the course.

The Honauna Ola project focused on the goal of sustaining Hawaiian cultural practices and sense of well-being through voyaging, with the objective of training a new generation of voyagers. The project culminated with the 2019



HONAUNA OLA OBJECTIVES, CULMINATING IN THE 2019 VOYAGE OF MAKALI'I TO MOKUMANAMANA:

- Instruct and evaluate 24-to-30 potential crew in the knowledge, practices and advanced skills required in wayfinding (non-instrument navigation) and voyaging in order to fill the roles of captain, navigator, watch captain, quartermaster and crew.
- Train 300 support crew in the knowledge and practices instrumental to the onthe-ground support of a voyage. Instruct trainees to cultivate plants in canoe gardens, prepare food, braid cordage and learn chants and prayers for voyage ceremonies. Measure progress in learning and performance.
- Demonstrate the knowledge, practice and skills learned through this period by successfully applying them to the 2019 voyage of Makali'i to Mokumanamana—both on board the canoe, as well as in the support teams on the ground.

Master (Pwo) Navigator Shorty Bertelmann supervises the training captain, watch captains and crew as Makali'i sails past Molokai. Photo ©'Ōiwi TV. Photo credit: Jason Patterson

voyage of Makali'i to Mokumanamana in the Northwestern Hawaiian Islands.

Paishon reflects, "There is a saying that was started by Clay Bertelmann—the canoe is our island so the island is our canoe, he wa'a he moku he moku he wa'a; we need to care for our resources when on our canoe (wa'a) or on our island (moku). The canoe always brings those lessons home."

Join Chadd Paishon as he leads talks based around The Voyager Exhibit 10-11 am Jan 2-4 at Kahilu Theatre.



The Voyager Exhibit Talks

The Voyager Exhibit Talks are 10-11 am Jan 2, 3 and 4 in front of The Voyager Exhibit at Kahilu Theatre.

Join Master (Pwo) Navigator Chadd Paishon, other members of Nā Kālai Wa'a and the Makali'i crew to learn about voyaging and the 2019 voyage of Makali'i to Mokumanamana in Papahānaumokuākea Marine National Monument.

THU, JAN 2: THE VOYAGE The June, 2019 voyage of Makali'i to Mokumanamana marked the culmination of years of planning and effort. The logistics behind planning and preparation for the journey involved the determination of the sail plan: the management of dry dock and preparation of the canoe; and the development of an extensive crew training program as part of the Honauna Ola project.

Join Master (Pwo) Navigator Chadd Paishon around a map of the Northwestern Hawaiian Islands to learn about the logistics and planning involved with the voyage, including the considerations involved in determining the route taken; the sailing conditions encountered; and stories from the voyage and time spent on Mokumanamana.

FRI, JAN 3: NAVIGATION, CREW TRAINING AND MOKUMANAMANA The Star Compass forms the basic framework for wayfinding. While the navigator uses a physical Star Compass as a learning tool to start, the navigator will ultimately memorize the star charts-through years of study-and employ the Star Compass as a mental map to categorize the information needed for navigation.

Join Master (Pwo) Navigator Chadd Paishon to learn about the Star Compass and non-instrument navigation; the art of non-instrument weather forecasting; the Honauna Ola project and training program leading up to and culminating in the voyage; the steps undertaken by crew in training; and the connection between the Star Compass and Mokumanamana.

SAT, JAN 4: HOE'A MOKU, CANOE PLANTS, KAULA (CORDAGE), MALA'AI GARDEN AND PROVISIONING THE CANOE The logistics behind preparation for the journey involved a team of people working to ensure the canoe was properly stocked and provisioned. The goal for the 2019 voyage of Makali'i was to provision the canoe completely with food grown sustainably on Hawai'i Island, in collaboration with school gardens and community effort. Schools,

The view of the cliffs of Molokai from the escort vessel Alaka'i. Photo credit: Atsushi Sawada





The sea birds of Mokumanamana start their day as the sun rises on the summer solstice. Photo credit: Chelsey Dickson

farms and community groups worked together over a three-year period to develop recipes, grow, harvest, prepare and preserve food for the voyage. As part of this effort, schools and community also worked to provide ceremonial cordage (kaula) and other material required on the canoe and made from canoe plants grown on island as part of the Hoea Moku project.

Join Master (Pwo) Navigator Chadd Paishon and others to learn more about the effort and collaboration involved in provisioning the canoe and for a special tour, tea and talk story with Māla'ai: The Culinary Garden of Waimea Middle School. Participants will meet at the theatre for initial discussion and then take the short walk to the garden.

Photo credit: Atsushi Sawada

OF WAIMEA MIDDLE SCHOOL Māla'ai, The Culinary Garden of Waimea Middle School cultivates the relationship between students and the land through growing and sharing nourishing food in an outdoor living classroom. The project's work reaches beyond the boundaries of the garden connecting land stewardship, culture, health and

pleasure with lifelong learning. Māla'ai provided over 200 servings of food for

the voyage.

MĀLA'AI: THE CULINARY GARDEN





Ha'ena Kū, Ha'ena Ala and Ha'ena Mauhoalālā are peaks on Mokumanamana. Photo credit: Kalā Mossman

Edith Kanaka'ole Foundation and Voyage Research

As part of the 2019 Makali'i voyage to Mokumanamana, the crew was able to collaborate with the Edith Kanaka'ole Foundation on research conducted on the island regarding pahu manamana, the formations of standing stones found on Mokumanamana (Necker Island). Early Hawaiians placed these stones on every populated island, but the greatest density per square foot is found on Mokumanamana.

Mokumanamana lies within the Northwestern Hawaiian Islands and is part of Papahānaumokuākea Marine National Monument, a designated UNESCO World Heritage Site. The island is approximately 40 acres in size and hosts over 40 upright platforms or pahu manamana with three to 15 manamana or upright standing stones on each platform.

Over a period of two nights and three days, Makali'i crew landing team members worked alongside the Edith Kanaka'ole research team to gather data on the alignment of each standing stone relative to the rising and setting of particular stars and star constellations during the summer solstice. The team methodically photographed star settings and risings from specific points and observation angles from the upright stones. Other data collected included measurements of the distance and angle from observation points; measurements of the distance between individual upright stones on a structure; compass readings taken for each individual stone; and GPS recordings for each of the pahu manamana.

The data collected was catalogued and compiled into both data base and spreadsheet format.

Please join members of the Edith Kanaka'ole research team, alongside participating Makali'i landing team crew, as they speak about the preparation for this effort along with their experience and findings from the research conducted on the 2019 voyage to Mokumanamana: 1:15 pm Friday, Jan 3 at Parker Theatre.

Alan Friedlander, Ph.D.

Dr. Alan Friedlander is chief scientist for National Geographic's Pristine Seas Project where he leads research efforts to understand and conserve the last wild places in the ocean. Friedlander has spent more than 10,000 hours underwater—from coral reefs to the poles, and to depths of thousands of meters. The focus of his marine conservation work ranges from small-scale community-managed areas to some of the largest protected areas on the planet.

He is a trustee with The Nature

Conservancy in Hawai'i and is director of the Fisheries Ecology Research Lab at the University of Hawai'i.

Dr. Friedlander holds a Master of Science in Oceanography from Old Dominion University and a doctorate from the University of Hawai'i.

Join Alan Friedlander, Ph.D., for a presentation about coral reefs, global ocean health and the economic benefits of marine protected areas (MPAs) 2:15 pm Friday, Jan 3 at HPA Gates.

Ka'ūpūlehu Marine Life Advisory Committee (KMLAC)

The Kaʻūpūlehu community observed a decline in marine life and came together to address it by forming the Kaʻūpūlehu Marine Life Advisory Committee (KMLAC). KMLAC is a coalition of people whose family ties to the landscape go back for generations, joined by volunteers from a variety of constituencies.

Over a 17-year period, the KMLAC worked with The Nature Conservancy and others to understand the reasons for the decline, learn about the science of marine management and agree on a

balanced approach that incorporated Hawaiian culture and state regulations. The collective effort made history by instituting Hawai'i's first marine rest area: in July 2016, Governor David Ige signed into law a 10-year marine reserve along 3.6 miles of coastline.

Join Kaikea Nakachi, a member of KMLAC, as he shares a quick update about the Kaʻūpūlehu Marine Reserve and progress observed to date 4 pm Friday, Jan 3 at HPA Gates.

The Kaʻūpūlehu Marine Reserve was estabished in 2016. This 10-year rest area restricts fishing at Kaʻūpūlehu, so coral reefs have a chance to recover and can once again support abundant fisheries. After only two years, a survey conducted by The Nature Conservancy show the rest area is already having its intended effect, with populations of prized wrasse, parrotfish and surgeonfish species increasing at much higher rates inside the protected area than outside in adjacent open areas:

• Wrasses: 62% inside vs. 3% outside

• Parrotfish: 30% inside vs. 3% outside

• Surgeonfish: 46% inside vs. 21% outside

The Mokupāpapa Discovery Center

The Mokupāpapa Discovery Center (MDC) was established in 2003 to interpret the natural science, culture and history of the Northwestern Hawaiian Islands and surrounding marine environment. As most people will never have the opportunity to visit these remote islands, the facility, located in downtown Hilo on Hawai'i Island, serves to "bring the place to the people" and spur greater public awareness of the region and ocean conservation issues.

Housed in Hilo's historic, century-old Koehnen Building, Mokupāpapa features a 3,500-gallon saltwater aquarium, interactive educational exhibits, lifesize models of wildlife found in the Northwestern Hawaiian Islands, artwork inspired by those islands and Hawaiian culture, plus many interpretive panels in both Hawaiian and English. The grace of the historic Koehnen building has



been preserved and refinished to show off its majesty, including a koa wood staircase—sister to the one built for the Titanic—Hawaiian hardwood floors and high ceilings.

The nature and culture of the Northwestern Hawaiian Islands comes alive at the center. Visitors are transported to this remote ocean wilderness where marine life is protected, reefs thrive and the skies teem with seabirds. The Native Hawaiian chanting of the *Kumulipo* (the Hawaiian creation chant) sets the mood for exploration and learning.

The center is open 9 am-4 pm Tuesday through Saturday for visitors.

HIDDEN HAWAI'I:

THE REMOTE ISLANDS AND REEFS OF PAPAHĀNAUMOKUĀKEA Papahānaumokuākea Marine National Monument is the second largest protected area on Earth and encompasses the Northwestern Hawaiian Islands. These unpopulated islands and atolls provide a sanctuary for monk seals, sea turtles, sharks and reef fish. They also provide nesting area for more than 14 million seabirds and are the primary nesting site of the Hawaiian green sea turtle. Extensive coral reefs and deep-sea habitats harbor one the highest percentages of endemic species found nowhere else on the planet.

The area is also of great significance to native Hawaiian culture with the island of Mokumanamana having the highest density of sacred cultural sites in the archipelago, and the island of Nihoa acting as a wayfinding point for training the next generation of navigators in celestial navigation. Learn about Papahānaumokuākea Marine National Monument through video, art and interpretive content 10 am to 6 pm Jan 2-4 in the Fairmont Orchid - Festival Exhibit Room 2. The Festival Exhibit Room 2 is located across the hall from film screenings. When you are ready to explore further, visit Mokupāpapa Discovery Center in downtown Hilo.

Andy Collins

Andy Collins has worked for the National Oceanic and Atmospheric Administration (NOAA)'s Office of National Marine Sanctuaries since 2001. In this capacity, Collins is director of the Mokupāpapa Discovery Center for Papahānaumokuākea Marine National Monument and World Heritage Site.

Collins has led several expeditions and programs to the Northwestern Hawaiian Islands and Papahānamokuākea Marine National Monument. He works to develop educational and outreach material to share information and stories about, and contained within, these islands.

During his tenure at NOAA, Collins has been deeply involved in work to expand the protection and international recognition for the remote islands and reefs of the Hawaiian Archipelago, including three expansions in size of the protected area, the World Heritage designation and numerous campaigns to raise awareness of this unique place.

In May 2019, Andy Collins joined a NOAA expedition to deploy monk seal and sea turtle volunteers to their summer field camps in the Northwestern Hawaiian Islands. As part of this mission, sea turtle researchers observed how Hawaiian green sea turtles adapted to the disappearance of their primary nesting site, East Island in French Frigate shoals. The island was wiped off the map during an unseasonal 2018 hurricane event. Green sea turtles, endemic to Hawai'i, have survived for millions of years against repeated threats but now face their greatest threat in climate change and sea level rise. Collins is working within NOAA and with other management agencies to determine how best to protect and help the Hawaiian green sea turtle survive.

Collins received his dual bachelor's degree in forestry and ecology from SUNY College of Environmental Science and Forestry in Syracuse, New York. Collins lives with his wife Susan in Ahualoa on the Island of Hawai'i.

Please join Andy Collins for an exhibit titled Hidden Hawai'i:
The Remote Islands and Reefs of Papahānaumokuākea. Learn about Papahānaumokuākea Marine National Monument through video, art and interpretive content 10 am-6 pm Jan 2-4 in the Fairmont Orchid - Festival Exhibit Room 2. The Festival Exhibit Room 2 is located across the hall from film screenings.



Join Andy Collins for a presentation titled Hawaiian Green Sea Turtles and A Changing World to learn more about Hawaiian green sea turtles, their nesting cycles and observations from the NOAA 2019 research season in Papahānaumokuākea. The presentation will be 4:00 pm Friday, Jan 3 at HPA Gates.

Red Tail Tropicbirds. Photo © Andy Collins



Christian Enns

A two-time National Scholastic Surfing Association (NSSA) Champion and Hawai'i Amateur Surfing Association (HASA) Champion, Christian Enns spent 10 years traveling as a professional surfer before settling down on the Big Island. As an artist, Enns creates visually striking, Hawai'i-themed paintings that feature the beauty of the islands and local shoreline, as well as intimate scenes from modern-day and traditional Hawaiian life.

Enns studied figurative realism and classical painting techniques at Laguna College of Art and Design in California, where he graduated cum laude with a Bachelor of Fine Arts. He works primarily with oil paint on panel or canvas.

The experience as a big wave surfer, riding 50-foot waves, brings a unique, personal perspective and connection to the ocean that Enns carries to his work. Enns is represented by Tiffany's Art Agency and can also be viewed by appointment at his studio. He creates large-scale oil paintings, for inclusion in his own body of work, as well as by commission.

Enns often works en plein air, taking his paints and canvases to the shoreline, where he can feel and sense the ocean. Over the course of the festival, attendees have been given the opportunity to watch him paint onlocation. Enns has also provided artwork for the Waimea Ocean Film Festival for a number of years, including at the festival auction.

Please join Christian Enns to observe as he paints en plein air 8 am-11 am Jan 2-4 at the beach at Mauna Kea Beach Hotel.

Origami with Bonnie Cherni/Epic Origami

Epic Origami was founded by Bonnie Cherni, who was inspired to fold origami when she discovered John Montroll's collection of origami books at the age of 15. At Epic Origami, Cherni engages a team of accomplished origami artists and innovative engineers to create large-scale origami exhibitions, including a recent, full gallery installation at the Denver International Airport and Big Island exhibits at 'Imiloa Astronomy Center, Kahilu Theatre and Keck Observatory.

In addition to larger-than-life origami installations, Epic Origami is also known for innovative teaching workshops that attract and excite audiences to the potential of origami. Epic Origami sculptures vary from miniature to life-size and are often made of exotic mediums such as aluminum, copper and canvas, in addition to paper.

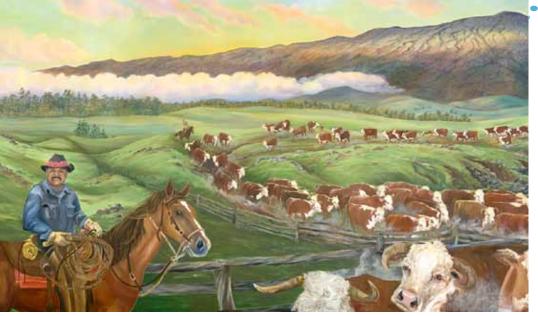
Epic Origami has been featured in several publications, including *Hawaiian Airlines/Hana Hou*, *Alaska Airlines/ Alaska Beyond* and *Ke Ola Magazine*. Through its work, Epic Origami maintains a mission to raise awareness of endangered species through animal and ocean sculptures while furthering origami as an art form.



Photo © Elyse Butler Mallams

Join Bonnie Cherni for origami classes noon-3 pm Jan 1-4 in the Fairmont Orchid - Festival Seminar Room. The Festival Seminar Room is located next door to film screenings.





Sunrise Cattle Drive. Artwork by Marcia Ray

Marcia Ray

Marcia Ray was commissioned by Parker Ranch to complete a two-year-long project that included researching the Hawaiian paniolo culture. As part of this, she conducted written and oral interviews and collected photographs from cowboys and families in the community from the 1920s and on. She then painted a series of murals for Parker Ranch based on the collected documentations of her research, now displayed at Parker Ranch Center.

Ray's original paintings and murals depict a breadth of work that showcase her many different styles and painting techniques. She has the ability to create representations of a wide range of subjects, including tropical botanicals, Hawaiian landscapes, oceanic life and the Hawaiian cowboy lifestyle and paniolo culture.

Ray also creates woodblock prints of what surrounds her daily life: oceanscapes, sea life, waves and tropical botanicals. She is able to portray Polynesian and Hawaiian stories with her signature surrealist style while being sensitive to maintain cultural integrity. Her body of work spans oil paintings, watercolors, mosaics, standing art screens, furniture and wood carvings. Large scale murals can be seen in resorts, hospitals and shopping centers on the island.

Ray has been commissioned by hotels, restaurants, hospitals and private homeowners all over Hawai'i and the mainland United States. She lives and paints at her home studio on the Big Island of Hawai'i, as well as her commercial studio on Kawaihae Road.

Marcia Ray has a Bachelor of Arts in Fine Arts from the Ridgewood School of Art in New Jersey and enrolled in course work at the Honolulu Art Academy.

Join Marcia Ray for a tour and discussion of her paniolo murals 4 pm Friday, Jan 3; 3 pm Saturday, Jan 4; and 3 pm Saturday, Jan 11.
Participants will meet at Kahilu Theatre and take a short walk to the murals from there.

Isaacs Art Center

Through its careful curation of Hawaiian art, Isaacs Art Center has garnered the reputation of housing one of the most important collections of Hawaiian art in the state. Part of Hawai'i Preparatory Academy (HPA), it has a mission to raise money for the benefit of HPA students through its financial aid program, while giving the community access to significant works of Hawaiian art and sculpture.

Functioning as both museum and gallery, Isaacs Art Center has curated its own permanent art collection with loans from private collectors in addition to offering works of art for sale. The permanent collection includes about 30 oil paintings and 40 works on paper by Madge Tennent. Other Hawai'i artists on display include Jean Charlot, Martha Greenwell, Herb Kawainui Kane, D. Howard Hitchcock, Ben Norris, Louis Pohl, Huc-Mazelet Luquiens, Horatio Nelson Poole, Lloyd Sexton, Jr. and Lionel Walden.

The Isaacs Art Center building dates to 1915 when it served as Waimea's first public school structure, bringing a sense of history and architectural warmth to the artistic display. Relocated to the HPA campus in June 2002, it was awarded the prestigious Historic Preservation Award from the Historic Hawai'i Foundation in 2003-2004 after

being placed on the State Register of Historic Places in March, 2003. A full restoration was completed in March, 2004.

A faculty member at HPA since 1994, and former chair of the Fine Arts Department, Mollie Hustace took the helm as director of Isaacs Art Center in 2014. Hustace continues her role as faculty member, offering a course in art history.

Prior to her faculty position at HPA, Hustace acted as visiting lecturer in art history at 'Iolani School and a docent lecturer and gallery guide at the Honolulu Museum of Art. She earned her Bachelor in Human Biology from Stanford University and her Master of Public Health and Master of Education from the University of Hawai'i-Manoa, after studying art history in Florence.

Located in Waimea, Isaacs Art Center is open 10 am-5 pm Tuesday through Saturday.

Join Mollie Hustace at Isaacs Art
Center, noon Saturday, Jan 11 for a
gallery tour and discussion of the work
of Madge Tennent and 20th century
modernism, followed by a comparison
with the historic realism of Herb Kane
and the landscape (Greenwell, Norris)
and figurative painting (Kiriaty, Long,
Kobzev, Long) in later 20th century
Hawaiian art.



The Art of Mauna Kea Beach Hotel

"Our environment is part of us. How we care for our environment and live with it, utilize and enjoy it, determines the kind of people we are and will be."

-Laurance Rockefeller

When Laurance S. Rockefeller developed Mauna Kea Resort in 1965 he envisioned a cross-cultural resort experience embracing art and culture from throughout Asia, Oceania, the Pacific Rim and the island. He engaged a

knowledgeable team of art experts to acquire works of art in what would become recognized as the most significant private collection of Oceanic and Asian art in the world.

Rockefeller saw the resort as a "unique opportunity to bring an awareness of the spirit and wisdom of the east" to the west. His vision was to "incorporate Asian and Pacific arts into the resort's design in such a way that the art could become, iust as the elements of nature, a constant influence."

Seeking cultural and artistic pieces from Hawai'i, Rockefeller's patronage helped revive the ancient art of Hawaiian kapa making. He commissioned 14 large pieces of kapa (pounded tree bark) from renowned kapa artist Malia Solomon.

Rockefeller also commissioned 30 quilts from Meali'i Kalama, now representing the largest guilt collection in the state. The resort recently worked with Bishop Museum to restore both the kapa and guilts in its collection.

The Mauna Kea Beach Hotel is designed to enhance the works through layout and display. Every hallway

> and corner offer nooks and niches to house this collection. Rockefeller also felt it was important to connect guests to the outdoors, deciding on an innovative design that left hallways and stairways open to the ocean.

As elsewhere, Rockefeller worked tirelessly for conservation in the state, personally working to raise funds for the acquisition of an additional 10,000 acres to contribute to Haleakala National Park. He donated 50 acres in Kipahulu on Maui, including the Seven Sacred Pools of Ohe'o. His deep seated concern for the environment was integrated

into management and design of the hotel and part and parcel to his interest in art.

Please join a guided art tour 9 am Saturday, Jan 4 or Saturday, Jan 11 to learn more about the collection and hear stories of the art, architecture and history of the hotel.









Maria Paola Gabusi and Olive Oil Tasting

Maria Paola Gabusi (Maripa), is an internationally recognized extra virgin olive oil (EVOO) expert and the director, organizer and panel leader of a rigorous, international olive oil competition. She also teaches master classes for EVOO tasters and is a taster for professional olive oil tasting panels.

After moving to Lake Garda, a region closely linked with olive oil and its trees, Gabusi studied the culture of the region, diving into the details of olive oil and its production. She eventually became a professional olive oil taster and director of the Leone d'oro dei Mastri Oleari, the oldest and most prestigious international competition for EVOO in the world.

Having worked previously as an extreme sports photographer in Milan, Gabusi moved to her grandparents' home on Lake Garda in 2009. It was a large homestead that had been left uninhabited for 50 years and was surrounded by a 2.5-acre olive grove. She saved and renovated the property, rebuilding two houses and a barn while restoring the property's historic charmand opened a bed and breakfast. She now produces, harvests and mills a single-varietal Casalive EVOO from her own organic olive oil grove. While olive oil farmers in Italy have been recently facing difficulty with changing climate conditions, they continue to produce small batch EVOO of exceptional quality.

Gabusi teaches master olive oil tasting courses internationally. She also organizes courses for children in elementary schools finding children are already able to distinguish high quality olive oil and believing, "we only have to prepare children to choose and appreciate healthy food."

Join Gabusi for a special olive oil tasting and meal pairing in early March, 2020 at the Mediterranean-inspired Meridia Restaurant at The Westin Hapuna Beach Resort. Details to be announced later.







Orchids. Artwork by Sophie Twigg-Smith Teururai

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Blue. Artwork by Sophie Twigg-Smith Teururai





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1930's Cowboy at Pui Hale Corral. Artwork by Marcia Ray



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Technical Team:

Jim Hurst

Rudy DeRochemont **David Byars** Bruce Stern John Week Jim Toten Greg Green Joe Loschiavo

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