

Ka‘Elele

The Messenger

THE JOURNAL OF
BERNICE PAUHI BISHOP MUSEUM
WINTER 2025



Exhibitions

May 24, 2025 through January 25, 2026
Expedition Dinosaur: Into the Deep
Castle Memorial Building
This exhibition is a world-class science attraction that brings the wonders of Mesozoic oceans and prehistoric life to audiences of all ages. It blends cutting-edge science with immersive storytelling to spark curiosity and inspire learning.

August 24, 2025 through March 22, 2026
Explore EXCORE: The Art of Underwater Science
J. M. Long Gallery
Step into the vivid world of EXCORE’s revolutionary underwater cinema — the most advanced video system ever built to document coral reefs in breathtaking clarity. These immersive films not only aid in protecting fragile ecosystems, they capture species that may vanish over the next 50 or 100 years — and inspire all who visit with the beauty and wonder of our planet’s underwater legacy.

Events

MONTHLY

Second Friday | Nov. 14, Jan. 9, Feb. 13, March 13, April 10, May 8
Museum After Hours
5–9 p.m.
Campuswide

Third Wednesday | Nov. 19, Dec. 17, Jan. 21, Feb. 18, March 18, April 15, May 20
Grow Aloha at Kaiwi’ula Night Market
5:30–7 p.m.
Bishop Museum Upper Parking Lot

Third Friday | Nov. 21, Jan. 16, Feb. 20, March 20, April 17, May 15
The Stars Tonight
Evening showtimes vary
J. Watumull Planetarium

KA ‘ELELE | Winter 2025

Managing Editor	Design	Contributors	
Jon Asato	Susan Yamamoto	Taylor Chang	Teresa Kling
		Romee Gaoiran	Nicole Sakai
		Nick Griffith	Gail Vincent

Events

NOVEMBER

Friday | November 14
Museum After Hours: Mary Kawena Pukui Hawaiian Dictionary Spotlight
5–9 p.m.
Campuswide

Wednesday | November 19
Navigating By The Stars: Kaiwikuamo’o
7–8 p.m.
J. Watumull Planetarium

Friday | November 21
The Stars Tonight
7–8 p.m.
J. Watumull Planetarium

Friday–Sunday | November 21–23
The Hawaiian ‘Ukulele Experience
9 a.m.–4 p.m.
Atrium of Hawaiian Hall, Gallery Lawns

Friday | November 28
Lā Kū’oko’a
5–8 p.m.
Hawaiian Hall

Saturday | November 29
Screening of KAPU Sacred Hawaiian Burials
6–9 p.m.
Gallery Lawns

DECEMBER

Friday | December 5
The Stars Tonight: Trivia Dome
6–7:00 p.m. & 7:30–8:30 p.m.
J. Watumull Planetarium

Wednesday | December 17
Dino Night
5–8 p.m.
Castle Memorial Building

Wednesday | December 17
Grow Aloha at Kaiwi’ula Night Market
5:30–7 p.m.
Bishop Museum Upper Parking Lot

Friday | December 19
Museum After Hours: Founder’s Day + Closing Celebration of the 2025 Nānā I Ke Kumu Series
5–9 p.m.
Campuswide

JANUARY 2026

Friday | January 9
Museum After Hours: Screening of Jurassic Park
5–9 p.m.
Campuswide

Friday | January 16
The Stars Tonight
7–8 p.m.
J. Watumull Planetarium

Sunday | January 25
Charles Reed Bishop Founder’s Day
10 a.m.–Noon
Hawaiian Hall

FEBRUARY

Friday | February 13
Museum After Hours: Makahiki Closing
5–9 p.m.
Campuswide

Wednesday | February 18
Navigating By The Stars: Ke Kā o Makali’i
7–8 p.m.
Campuswide

Friday | February 20
The Stars Tonight
7–8 p.m.
J. Watumull Planetarium

MARCH

Friday | March 6
Mālama Hāloa Education Day
Campuswide

Sunday | March 8
Mālama Hāloa Festival – Free Day
9 a.m.–2 p.m.
Campuswide

Friday | March 13
Museum After Hours
5–9 p.m.
Campuswide

For details and program registration visit bishopmuseum.org/events

COVER | Bishop Museum researcher Brian D. Greene uses the most advanced underwater camera system in the world to document coral-reef biodiversity during a recent EXCORE expedition to Taiwan’s Green Island. Photo by Richard L. Pyle/Bishop Museum.

Aloha & Mahalo



Aloha!

August 1, 2025 was a special day for me, as it was my first day at Bishop Museum! Since then, I have been in a period of deep learning about our Museum culture and the precious and fragile place in which we live. I am listening and better understanding every day, the important work we do at Bishop Museum to perpetuate the legacy of the ali'i, how everything

we do is connected to 'āina, and how active research is critical to the understanding and preservation of our beautiful home.

Bishop Museum is known globally for its vast collection and its expertise in cultural and scientific research. With over 25 million objects in our collections, we rank amongst the largest in the world. I am humbled to serve at this world-renowned and highly reputable institution with a kuleana to preserve the legacy of the people of Hawai'i and the Pacific and the preservation of our environment so that the knowledge we hold is here for future generations. I take this responsibility seriously and am committed to continuing the good work that takes place here every day by a team of highly talented and dedicated staff.

I have been a visiting researcher at the Museum since 2002, where I studied in the mammal collection while I was a student at Harvard University. I became a research associate here in 2007 and have frequently visited and conducted research here ever since. I have worked in museums most of my career, most recently coming from the Australian Museum Research Institute, where I served as their chief scientist and director. I also spent a decade at the Smithsonian Institution as the curator of mammals.

The discoveries still being made by Bishop Museum's scientists continue to energize and excite. I received a stunning message from our Malacology team on Sept. 4 filled with a spirit of hope and excitement. After more than a decade of searching, the team found two species of snails that have not been clearly documented in almost a century. They are both endemic to Kaua'i and were feared to possibly be extinct. Our researchers were able to bring a few live snails back to the Museum for captive rearing, adding two more species of Hawaiian land snails, in imminent danger of extinction, to our live collection, and strengthening our efforts to boost viable populations of kāhuli from captive rearing. This kuleana that the Museum has taken on is deeply felt and our team looks forward to one day returning the snails to their home in bolstered numbers. Contributions like yours make these discoveries possible! I ask for your support for this precious institution. Your support is critical and allows us to continue to do the vital work we do on behalf of our community. I look forward to meeting you and hearing from you in the days and months to come.

With sincere gratitude,

Kris Helgen

President and Chief Executive Officer

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LATTE STONE Ceremony

By Healoha Johnston, Director of Cultural Resources, and Curator for Hawai'i and Pacific Arts and Culture

BELOW

Bishop Museum Cultural Advisor Marques Hanalei Marzan, Director of the Northern Marianas Museum Leonard Leon, Guam Cultural Repository Collection Manager Nicole Duenas, Senator Celina Babauta, Northern Marianas Islands, Chief of Staff, Office of the Governor of the Northern Marianas Islands Henry Hofschneider, Lt. Governor of Guam Josh Tenorio, Governor of Hawai'i Dr. Josh Green, First Lady of Hawai'i Jaime Green, Bishop Museum President & CEO Kristofer Helgen, Department of CHamoru Affairs President Melvin Won Pat-Borja, Bishop Museum Director of Cultural Resources Healoha Johnston, Kumu Dietrix Jon Ulukoa Duhaylonsod, and Bishop Museum Curator for Hawai'i and Pacific Resources Sarah Kuaiwa. Photo by Jon Asato/Bishop Museum.

On Saturday, Aug. 9, 2025, Bishop Museum, in partnership with the Government of Guam and the Government of the Northern Mariana Islands, the Guam Museum, the Guam Cultural Repository, and the NMI Museum invited the Chamorro community and friends to participate in a special ceremony honoring the return of the latte stones and Hornbostel collection.

Beginning in August 2025, Bishop Museum initiated a phased return of more than 10,000 pieces from the Museum's collection to the Mariana Islands, including the latte stones formerly on display in front of Hawaiian Hall. Bishop Museum's Board of Directors unanimously voted to deaccession pieces in the Cultural Resources collection originally acquired by Hans Hornbostel in the early 20th century. This landmark decision comes after three years of collaboration with government officials and colleagues at peer institutions including the Guam Museum, the Guam Cultural Repository, Guam State Historic Preservation Office, the Northern Mariana

Islands State Historic Preservation Office, and the Northern Mariana Islands Museum of History and Culture. The decision to repatriate these pieces is in response to requests from the Guam Government dating back to the 1930s, calling for the reunification of the items with their home countries, and from Bishop Museum's present-day consideration of ethical museum practices.

The Hornbostel Collection consists of more than 10,000 objects collected from the Mariana Islands between 1920–1927 by Lieutenant Hans George Hornbostel (1884–1957) of the United States Marine Corps. While Hornbostel's field notebooks indicate that excavation was his primary method of research, it was widely known within the CHamoru community that he was also unethically collecting from family-held lands. More than a return of items, repatriation is a movement focused on restoring Indigenous peoples' relationships with their ancestral lands and cultures. Whereas repatriation refers to the physical return of human remains and ancestral,





often-associated burial belongings, repatriation speaks to a deeper restoration and of cultural continuity. In 2022, people from Guåhan and the Northern Mariana Islands reached out to Bishop Museum to request information about, and the return of, material acquired by Hans Hornbostel. Through the Museum's colleagues who submitted these inquiries, and through in-depth research, the Museum's current Cultural Resources team learned that the Museum had previously returned small selections from the collection over the course of the 20th century, culminating in the repatriation of all known human remains housed at Bishop Museum back to the Mariana Islands in 2000.

The Museum further learned that every 25 or so years, or every generation since Hornbostel acquired these pieces, people in Guåhan and later the Northern Mariana Islands requested the return of this collection. A close and productive working relationship emerged between Bishop Museum and a group of museums and government officials in the Marianas, from the most recent round of discussions. The decision for repatriation was made after three years of inter-institutional collaboration, and was supported through funding provided by the Mellon Foundation. Key efforts included listening sessions; collection care days with the community led by collection manager Kayla Annen; working group sessions; collections accesses; presentations and publications by Museum curator Sarah Kuaiwa about the collection and institutional history; and a series of consultations conducted during the Festival of Pacific Arts and Culture held at Bishop Museum in 2024.

"We are grateful for the initiative and incredible partnership with the Bishop Museum staff and leadership," said Josh Tenorio, Lieutenant Governor of Guam. "Their integrity and willing cooperation are truly admirable, and we are proud of

this effort rooted in Indigenous solidarity. Through these important Pacific connections, we will close a painful chapter of our history, but we have also started a new chapter of friendship and collaboration between our two institutions."

"The effort to repatriate these CHamoru artifacts is not just about returning items to their rightful place, it is symbolic of the shared understanding between two Indigenous communities who understand the importance of history, identity, and our connection to our past," said Melvin Won Pat-Borja, Mås Ge'hilo' (President), Guam Department of CHamoru Affairs. "We are proud to have had the opportunity to work with Bishop Museum to right this historical injustice and we look forward to a future of partnership and collaboration."

"The return of this collection is long-awaited, and builds on generations of CHamoru research, stories, and the collective memory of the Hornbostels in Guåhan and the Mariånas," said Nicole DeLisle Dueñas, Guam Cultural Repository. "It marks a critical and much-needed paradigm shift in museums globally, including decolonizing museum practices and honoring Indigenous connections to place. We've been very fortunate to work with the team at Bishop Museum, including Kanaka Maoli staff, who are dedicated to true repatriation, Indigenous participation, and collaboration — their support helped make this return possible!"

The decision for repatriation was made after three years of inter-institutional collaboration, and was supported through funding provided by the Mellon Foundation.

TOP LEFT

Dr. Faye Untalan giving an offering to one of the latte stones from Ypau, Guåhan. Photo by Noel Kenny/Bishop Museum.

TOP RIGHT

Offerings given to one of the latte stones from Urunao, Guåhan. Photo by Noel Kenny/Bishop Museum.

KAMĀLA‘ULAHWA

Growing for the Future at Bishop Museum

By Kapalikūokalani Maile, Education Programs Manager





In late 2020, amidst a global pandemic and the many uncertainties faced by communities across the Islands, Bishop Museum staff came together to discuss how we could re-engage visitors who would return to our quiet campus in small numbers. With many restrictions in place for our signature spaces, attention was turned to self-guided experiences that could provide engaging and educational moments wherever possible. Outdoors, however, our opportunities were much greater.

Museum leadership, realizing the potential for longer-term programming, elected to push for what would be called a “keiki garden,” a space in which ‘ohana from around Hawai‘i could learn about native plants, environmental conservation, traditional and contemporary agricultural practices, and the importance of ancestral knowledge towards sustaining community on ‘āina.

Over nearly five years of development, changes, shifts, and transitions, the dream of a finished structure, standing in the well-established Nā Ulu Kanu O Kaiwi‘ula Native Hawaiian Garden, has been realized. This new building, completed in the first half of 2025, continues the discussions begun five years ago, with renewed focus on food sovereignty and sustainability, aquaponics systems serving as an “urban ahupua‘a” for families to grow their own gardens at home, and restoring native plant life to habitat areas stewarded by external partners. This is Kamāla‘ulahiwa ‘Ohana Learning Space.

Two key elements to the evolving displays at Kamāla‘ulahiwa are the multiple aquaponics systems that can be seen on

the main deck, and the native seed planting experience called E Ulu, E Ola. The aquaponics systems showcase a full garden’s-worth of indigenous Hawaiian plants, Pacific-originated staple crops, leafy greens that you might encounter at a local market, and over 200 tilapia, spread across four different sizes of freshwater rearing tanks. E Ulu, E Ola, on the other hand, leads visitors through the stages of identifying, labelling, and planting native plants in peat pots that can be planted directly in home gardens. More importantly, working with partners like Mālama Learning Center and 808 Cleanups, E Ulu, E Ola stewards sprouted plants visitors have left with us to be outplanted at appropriate sites designated by partner organizations to restore native ecosystems. More activities and programs in the future will offer opportunities for the community to learn about building and maintaining aquaponics systems, caring for plants at home, and learning about the cultural significance of Hawaiian medicinal, material, and food plants.

Kamāla‘ulahiwa, loosely translated, refers to a dryland garden, whose beautiful, dark-red soil holds value for the people of Kaiwi‘ula, the name for the area upon which Bishop Museum’s 15-acre campus stands today. Kamāla‘ulahiwa’s exterior, rendered in earthen and emerald tones, thanks to the amazing artwork of Kaelyn Okuhata, reflects stories of past, present, and future. Even more so, Kamāla‘ulahiwa reflects the hopes of multiple generations of Museum staff that all visitors, whether from Hawai‘i or elsewhere, will deepen their knowledge of and commitment to the protection and stewardship of our island home.

TOP LEFT

These special outdoor work tables and displays, all designed in-house at Bishop Museum, guide visitors through the process of sorting, labelling, and potting up native seeds to be taken to partner sites for outplanting. Photo by Jon Asato/Bishop Museum.

TOP RIGHT

Through partners Mālama Aquaponics and Ke Kula Nui o Waimānalo, Education staff have been trained to build and maintain small- to large-scale aquaponics systems. Photo by Jon Asato/Bishop Museum.

OPPOSITE

Kamāla‘ulahiwa ‘Ohana Learning Space, situated near the top of the Nā Ulu Kanu O Kaiwi‘ula Native Hawaiian Garden. Photo by Jon Asato/Bishop Museum.

Explore EXCORE

The Art of Underwater Science

By Richard L. Pyle, Director of EXCORE

RIGHT

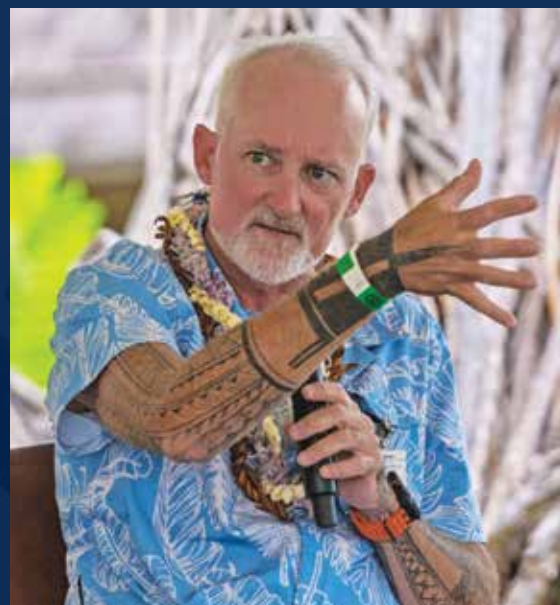
The *Explore EXCORE* exhibit showcases amazing underwater video taken by Brian Greene, who has been working in the Museum's ichthyology (fish) collection for nearly thirty years. Photo by Jon Asato/Bishop Museum.

BELOW

Brian Greene uses the most advanced underwater camera systems available to document biodiversity on coral reefs. Photo by Robert K. Whitton.

The life journey of Bishop Museum researcher Brian Greene has been (and continues to be) extraordinary. As the child of contract engineers working for the U.S. military, he spent his first 18 years of life growing up in the tropical paradise of Kwajalein Atoll in the Marshall Islands. A self-described avid “fish nerd” since he was a toddler, he grew up snorkeling and later SCUBA diving among the spectacular coral reefs at Kwajalein and elsewhere in Micronesia, in pursuit of his passion for coral-reef fishes. His childhood passion transformed into a career trajectory when, at the age of 16, he visited Bishop Museum to meet Dr. John E. “Jack” Randall (aka the greatest ichthyologist in *history*). Jack Randall immediately recognized the amazing combination of passion, knowledge, wisdom, and skills Brian had related to exploring, discovering, and documenting coral reefs, and Brian has been part of the Museum ‘Ohana ever since.

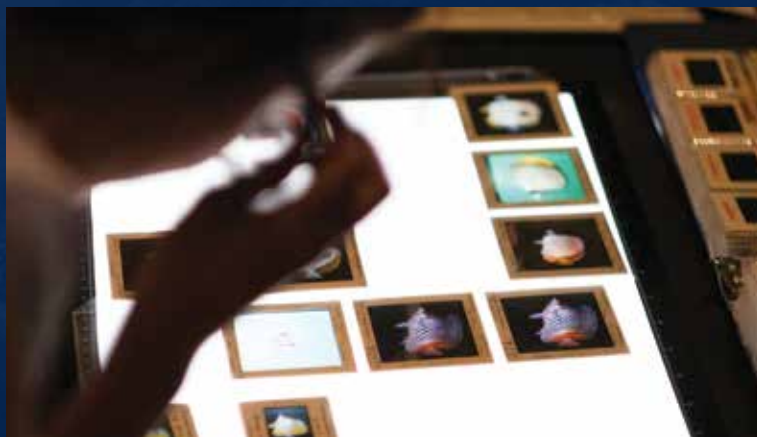
As a teenager, Brian embarked on a solo trip to the Red Sea to go diving, see unusual coral-reef fishes, and ride on the backs of camels (among other experiences). After attending the University of Hawai‘i, he spent the next several decades living on and visiting various islands throughout Micronesia, survived a harrowing and life-changing voyage on a sailboat across the southern Pacific, and worked closely with traditional Micronesian navigators, including Sesario Sewralur, son of the renowned Micronesian navigator Mau Pailug. Besides Bishop Museum, he has also worked for NOAA, Raytheon, and National Geographic. Along this winding path, Brian also pioneered the use of deep, mixed-gas scientific diving using rebreathers, and co-founded the Center for the Exploration of Coral Reef Ecosystems (EXCORE) here at Bishop Museum.



Bishop Museum's latest exhibition, *Explore EXCORE: The Art of Underwater Science*, showcases Brian's diverse talents and experience. This exhibition, which runs from Aug. 24, 2025 through March 29, 2026, celebrates the intersection between the Science that underpins EXCORE's mission, and the exquisite Art that Brian's amazing underwater videos represent. The overarching mission of EXCORE is to use (and sometimes invent) the latest undersea exploration technology to document Biodiversity on coral reefs. These habitats are among the most imperiled on Earth, facing serious challenges from climate change, ocean acidification,

At EXCORE, we are in a race to discover and document the Biodiversity inhabiting these ecosystems before it disappears forever.





pollution (especially microplastics), overharvesting, habitat destruction, and numerous others. At EXCORE, we are in a race to discover and document the Biodiversity inhabiting these ecosystems before it disappears forever.

An important aspect of EXCORE, and this exhibition, is to maintain its long and important legacy. One of the original founders of EXCORE, Jack Randall pioneered the use of underwater imaging as a tool for scientific research – starting in the 1950s with 16-mm underwater movies, and later with 35-mm underwater film cameras. These efforts have demonstrated the power of imagery in protecting coral-reef ecosystems. For example, underwater films he made on the reefs of Buck Island (U.S. Virgin Islands) were a major factor leading President John F. Kennedy to establish the Buck Island Reef National Monument in 1961. Today, these films are gold mines for researchers who want to understand how reefs have been impacted over the past half-century or more.

Brian Greene has taken underwater imaging to the next level. He currently uses the most advanced, state-of-the-art camera system available today – a RED V-RAPTOR® [X] 8K VV Cinema camera coupled with one of the most sophisticated lenses available – which captures video images

in “8K” resolution. This means that every frame of video (up to 120 frames per second) is itself a whopping 33-megapixel digital image — more than 16x higher than standard HD video! To take this system underwater, Brian worked closely with Gates Underwater Products, which manufactures the most rugged and reliable underwater camera systems available, to create a custom version of their housing for this particular camera that can dive as deep as Brian can (about 500 feet/150 meters).

Every image Brian (or any of the other EXCORE researchers) captures is intended for the scientific documentation of coral-reef biodiversity. In the same way that Jack Randall’s 16-mm movies give us a glimpse of what coral reefs used to look like in the 1960s and 1970s, the underwater images generated by the EXCORE team will be incredibly valuable to future generations decades or even centuries from now. Although our intention at EXCORE is to use these advanced camera systems for scientific documentation, the images themselves are often astonishingly beautiful. The new exhibition at Bishop Museum celebrates the success and triumphs of EXCORE, and especially the work of Brian Greene, by showcasing the incredible art that can result from our underwater science.

LEFT

A beautiful Peacock Mantis Shrimp (*Odontodactylus scyllarus*) is one of the countless species inhabiting coral-reef ecosystems that the EXCORE team documents using the latest available technologies. Photo by Brian D. Greene/Bishop Museum.

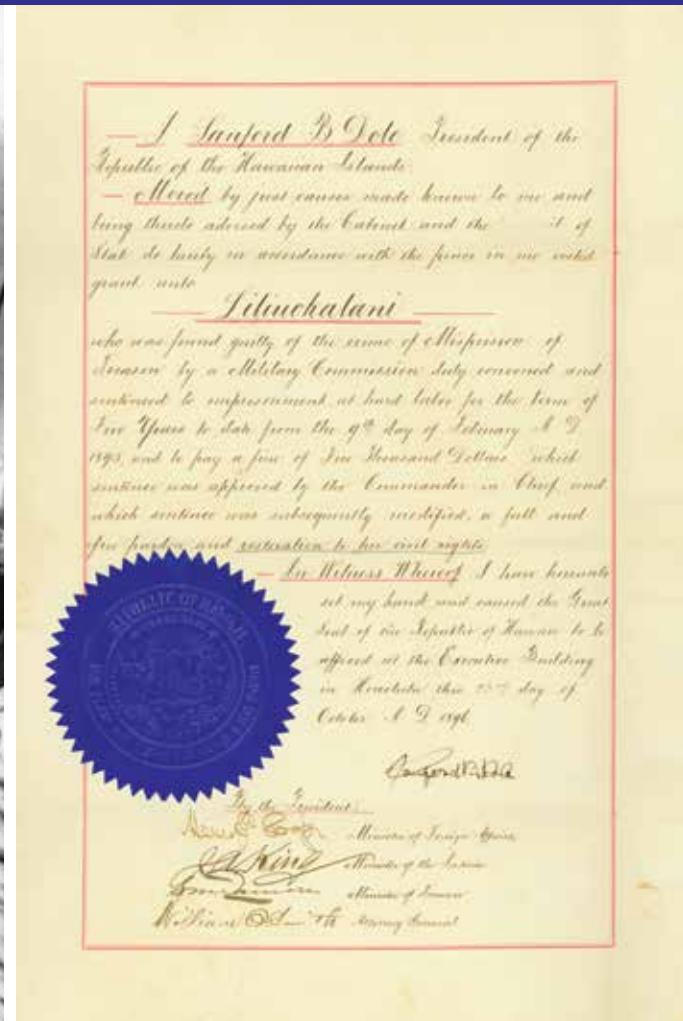
UPPER RIGHT

In addition to preserved fish specimens, the Museum’s Ichthyology collection houses tens of thousands of color images of fishes taken by John E. Randall. Photo by Jon Asato/Bishop Museum.

LOWER RIGHT

Calder Atta (Ichthyology Collection Manager, left) and Cassie Ka’apu-Lyons (expert in larval fishes, right), both key members of the EXCORE team, discuss Ichthyology samples with visitors at the monthly Museum After Hours event. Photo by Jon Asato/Bishop Museum.

FROM MAU KA LEO:



250 Stories and Counting

Queen Lili‘uokalani

By Bishop Museum Library & Archives

Lydia Lili‘u Loloku Walania Wewehi Kamaka‘eha was born on Sept. 2, 1838, at the base of Pūowaina in Honolulu, O‘ahu. Her parents were Analea Keohokālole and Caesar Kaluaikau Kapa‘akea. In the Hawaiian tradition of hānai (adoption), she was given to Abner Pākī and Laura Konia to be raised with their daughter, Bernice Pauahi.

Like other ali‘i nui at the time, Lili‘u was educated at the Chiefs’ Children’s School. There, she learned to read and write in English and became an accomplished musician and composer. She was also a gifted scholar, eventually publishing her own translation of the Kumulipo, the Hawaiian creation chant.

Following the 1874 election of her brother Kalākaua to the throne, Lili‘u was appointed heir apparent in 1877, and her name changed to Lili‘uokalani. As Princess Regent, Lili‘uokalani ruled in the king’s absence. During his world tour in 1881, she handled her duties deftly: when a smallpox epidemic broke out, she successfully controlled its spread through a vaccination campaign, quarantine regulations, and restrictions on interisland travel.

In 1887, while Lili‘uokalani was traveling abroad with Queen Kapi‘olani, word came that King Kalākaua had been forced by a coalition of white landowners, lawyers, and militia to sign the Bayonet Constitution, a document that stripped the Hawaiian monarchy of much of its authority.

When Kalākaua suddenly passed away in January 1891, Lili‘uokalani ascended the throne. During her two-year reign,

she fought to restore the Hawaiian monarchy’s authority and the rights of her people. Having received petitions signed by thousands from across the Hawaiian Islands, the Queen informed her cabinet on Jan. 14, 1893, of her intentions to establish a new constitution. In response, a “Committee of Safety” took swift actions to overthrow the monarchy and form their own government. With the support of U.S. Minister John L. Stevens, armed American troops from the USS *Boston* landed in Honolulu on Jan. 16, 1893. The following day, Queen Lili‘uokalani yielded to “the superior force of the United States of America” to avoid bloodshed.

In early 1895, Queen Lili‘uokalani was arrested for her alleged involvement in an attempted counterrevolution led by Robert W. Wilcox. In exchange for clemency for the convicted royalists and herself, Lili‘uokalani formally abdicated the throne on Jan. 24, 1895. She remained imprisoned in ‘Iolani Palace until September of that year, receiving news of the outside world through attendants who brought her flowers wrapped in newsprint. On Oct. 23, 1896, the illegitimate Republic of Hawai‘i granted the Queen a “full and free pardon.”

Queen Lili‘uokalani spent the rest of her days appealing to the U.S. government to restore recognition of Hawaiian sovereignty. Her autobiography “Hawaii’s Story by Hawaii’s Queen Liliuokalani,” first published in 1898, provides an invaluable first-hand account of a tumultuous time in Hawaiian history, and served as a plea for justice. The beloved queen passed away on Nov. 11, 1917, at the age of 79. Though her plea remains unanswered, her words, songs, and love for her people and ‘āina live on.



ABOVE

Bernice Pauahi Bishop (left) with her hānai (adopted) sister, Lili‘u (Lili‘uokalani); Honolulu, O‘ahu, Hawai‘i, ca. 1859. Ambrotype by W. F. Howland, Bishop Museum Archives. SP 14969.

OPPOSITE, LEFT

Standing portrait of Lili‘uokalani holding parasol with potted plants in background; Honolulu, O‘ahu, Hawai‘i, March 1913. Photo by L. E. Edgeworth, Bishop Museum Archives. SP 25091.

OPPOSITE, TOP RIGHT

The pardon of Queen Lili‘uokalani; entire release and restoration of any civil rights by Sanford B. Dole, President of the Republic of the Hawaiian Islands; Oct. 23, 1896. Bishop Museum Archives. SP 201837.

OPPOSITE, BOTTOM RIGHT

Studio portrait of Queen Lili‘uokalani wearing a black dress, seated on throne; Hawai‘i. Photo attributed to Frank Davey, R. J. Baker Collection, Bishop Museum Archives. SP 37287.

Since 2023, *Mau ka Leo* — Bishop Museum’s online storytelling space — has been documenting, sharing, and preserving the vital knowledge and multigenerational stories around the Museum’s collections.

Recently, we celebrated a new milestone of 250 entries in *Mau ka Leo*. We extend our deepest mahalo to our staff and community storytellers, to our generous

donors, and to the many readers who continue to make this project possible.

Featured here is an abridged version of our 250th *Mau ka Leo* story. Readers can explore more of this and other stories at BishopMuseum.org/MauKaLeo. To suggest a story you’d like to see next, please fill out the Provide Feedback form on the site.

Support for *Mau ka Leo* is provided by the National Endowment for the Humanities American Rescue Plan: Humanities Organizations program (ZDH-283709) and by generous donors to Bishop Museum’s Digital Futures Initiative.

The Lost Manu Research Initiative is examining how pollination processes are changing in response to extinction.



LOST MANU RESEARCH INITIATIVE

How Museum Collections Are Guiding Restoration in Hawaiian Forests

By Samuel B. Case and Molly Hagemann

From lowland to upland nahele, Hawai'i's nectar-feeding birds and flowering plants evolved together over millions of years, forming close ecological relationships that shaped the structure and resilience of native forest communities. With the disappearance or decline of many native bird and plant species, those relationships are now unraveling. Understanding the mechanics of these key interactions — and whether they can be restored — has become a central focus of our research.

Led by Dr. Samuel B. Case, a Bishop Museum research affiliate and postdoctoral scholar at the University of Washington, the Lost Manu Research Initiative is examining how pollination processes are changing in response to extinction. Using three-dimensional (3D) modeling of roughly 300 specimens from Bishop Museum's vertebrate zoology and herbarium collections, we are digitally reconstructing interactions between native birds and flowering plants. This allows us to explore how species may have functioned together in the past and what their loss means for the future of Hawaiian forests.

Our work focuses on the Hawaiian Lobelioids, a group of more than 125 species in the bellflower family (Campanulaceae), known for their striking floral forms and long history of coevolution with nectar-feeding birds. We are creating high-resolution 3D scans of flowers — both fresh and preserved — and bird specimens, including species still found in the wild such as the 'i'iwi and 'apapane, as well as extinct species like the Hawai'i 'ō'ō. These scans allow us to test how bill and flower shapes align and to trace patterns of coevolution across islands over millennia. By combining these simulations with real-time footage of birds feeding in the wild, we can estimate how effectively a given bird species pollinates a particular flower. This also lets us model extinct interactions, offering a rare glimpse into relationships that have been absent from living ecosystems for generations.

Our research also supports present-day restoration. We work closely with conservation partners across Hawai'i, including

The Nature Conservancy, Plant Extinction Prevention Program, Maui Forest Bird Recovery Project, U.S. Fish and Wildlife Service, and Lyon Arboretum. Efforts to reintroduce rare plants to restored habitats depend on knowing whether those plants still have effective pollinators. For example, species like hāhā — with long, curved floral tubes — likely rely on specific bill shapes for pollination. Our models help identify forest areas where remaining bird species have compatible flower traits, guiding restoration plans for rare species whose original pollinators may now be gone.

This work builds on 3D modeling approaches developed at the Burke Museum, within the Behavioral Ecophysics Lab at the University of Washington, to study the evolution and mechanics of nectar-feeding in hummingbirds. Together, we are now applying and refining these tools for Bishop Museum's vertebrate zoology and herbarium collections. These specimens are essential to the work, serving as irreplaceable records of biodiversity and ecosystem change across the Islands. The resulting 3D models will also be used in education, helping to foster a broader understanding and appreciation of Hawai'i's unique species amongst students of all ages.

Hawaiian knowledge systems have long recognized the kinship between plants, birds, and place. In this work, we aim to honor that perspective while using scientific tools to address today's conservation challenges. Museum collections are living records of the Islands' natural history, carrying the ecological knowledge needed to help reweave the pilina, or connections, that once defined Hawai'i's native ecosystems. By bringing together digital modeling, historical specimens, and on-the-ground conservation, we hope to see those relationships take root and grow again in the forest.

To learn more about the Lost Manu Research Initiative, please scan the QR code at right.

OPPOSITE

A juvenile 'i'iwi (*Drepanis coccinea*) perches on a Hawaiian lobelioid (*Lobelia grayana*). The curve of the bird's bill closely matches the corolla of the flower, a fit that increases the likelihood of pollen transfer during nectar feeding. Photo by Zach Pezzillo.

OPPOSITE, INSET LEFT

A preserved specimen of the extinct black mamo (*Drepanis funerea*) from the Bishop Museum collection positioned inside a light box for photogrammetry. Hundreds of images taken from different angles are stitched together by specialized software into a 3D model. The patterned markers surrounding the specimen guide the software in aligning and scaling the reconstruction.

OPPOSITE, INSET RIGHT

Fresh flowers of *Cyanea lobata*, suspended for photogrammetry using fishing line. The flower above is in the female stage and the one below is in the male stage, illustrating how reproductive phases are captured in detail for 3D modeling and ecological study.





INTRODUCING Shop Pacifica & Tūtū's Place

By Brandon Bunag, Vice President of Public Programs

Bishop Museum is excited to share with our members, visitors, and guests some refreshed experiences that go beyond the galleries. We're proud to introduce a rebranded gift shop and a former exhibition space, now a restaurant.

Shop Pacifica by Nā Mea Hawai'i at Bishop Museum

This past July, Bishop Museum proudly introduced Shop Pacifica by Nā Mea Hawai'i, a reimagined retail experience that reflects the Museum's mission and deepens its connection to the community. Located just beyond the admissions desk, the shop is more than a place to browse — it's a space for cultural storytelling, discovery, and engagement.

In selecting a new retail partner, Bishop Museum saw a natural alignment with the Council for Native Hawaiian Advancement (CNHA). Both organizations share a deep commitment to community, cultural stewardship, and storytelling. CNHA's mission to uplift Native Hawaiian communities and support local businesses complements the Museum's dedication to celebrating and perpetuating the history, culture, and environment of Hawai'i and the Pacific. This shared vision made CNHA an ideal collaborator for reimagining the retail experience at Bishop Museum.

The new partnership is built on a foundation of shared values and long-term vision. CNHA's lease will span no less than five years, with both organizations committed to cultivating a mutually beneficial relationship that elevates not only their work, but the broader community.

Visitors can expect a refreshed retail experience that emphasizes Native Hawaiian-owned businesses, locally designed and crafted products, and exclusive merchandise created in collaboration with artists, makers, and cultural practitioners. The shop will also serve as a dynamic space for workshops, product showcases, and cultural events, transforming it into a hub for gathering and learning.

Importantly, the Museum's ticketing process remains unchanged — guests will continue to check in and purchase admission through the shop as usual. Behind the scenes, however, exciting developments are underway. Bishop Museum and CNHA are working together to develop Museum-specific merchandise that thoughtfully highlights the Museum's collections and stories, similar to offerings found in leading cultural institutions around the world.

With Shop Pacifica by Nā Mea Hawai'i, Bishop Museum is not only enhancing the visitor experience — it's reaffirming its kuleana to support Native Hawaiian enterprise, celebrate cultural excellence, and create spaces where learning and commerce intersect meaningfully.

Tūtū's Place: Bishop Museum's Café

In what some might remember as the Hall of Discovery, is now Tūtū's Place, Bishop Museum's new café. Culminated over five years of collaboration and planning, Tūtū's Place became a reality for its owner and operator Highway Inn and the Museum. Designed with comfort and community in mind, Tūtū's Place features indoor and outdoor seating, offering a welcoming space to relax, refuel, and reflect, surrounded by the Museum's historic architecture.

The menu celebrates local flavors that take guests back to their tūtū's living room. The design, decor, and aromas almost instantaneously transport you to a time not too long ago, when quality time, storytelling, and the latest gossip were shared with family and friends. Guests can enjoy local favorites alongside a selection of beverages including Hawaiian-grown coffee. You can even cool off with a shave ice topped with your favorite flavor or the popular rainbow.

More than just a place to eat, Tūtū's Place is envisioned as a gathering space where educators, families, and cultural practitioners can meet, share ideas, and build relationships. Special pop-up events, tastings, and collaborations with local chefs and food producers are in the works, and even some extended hours.

Together, **Shop Pacifica by Nā Mea Hawai'i** and **Tūtū's Place** represent Bishop Museum's commitment to creating a holistic visitor experience — one that nurtures curiosity, celebrates cultural excellence, and fosters meaningful engagement. These spaces are not just amenities; they are extensions of the Museum's mission, offering new ways for guests to connect with the stories of Hawai'i and the Pacific.

As we move into the winter season, we invite you to explore these new offerings and rediscover Bishop Museum in fresh and inspiring ways. E komo mai — come in, stay a while, and experience the richness of our shared heritage from every corner of our campus.





E Ulu A Pa'a

By Jasmine Lee, Special Events and Stewardship Manager

On Saturday, August 23, 2025, Bishop Museum's annual fundraiser, E Ulu A Pa'a, was celebrated with a gala evening event highlighting the Museum's continued growth (ulu) and strong foundation (pa'a). E Ulu A Pa'a 2025 was chaired by Bob Harrison, Chairman, President, and CEO of First Hawaiian Bank. This year, the Museum recognized Mary Kawena Pukui, the prolific author, composer, teacher, and historian whose legacy continues to shape our understanding of Hawaiian culture to this day.

Mary Kawena Pukui worked at Bishop Museum while recording and documenting the largest library of oral histories of her time. In one of her recordings (translated by her daughter, Pat Namaka Bacon), she says, "I have only one favor to ask of people: to take care of their stories, let them be kept in a permanent place ... so that their grandchildren and great-grandchildren can come and hear our voices. Go directly to the house of the Princess, listen to the voice of their ancestors speaking. When we are gone, should your grandchildren want to hear your voice, my voice, go to the house of Pauahi." Remarks on Pukui's legacy were given by her grandson, La'akea Sukanuma, President of the Mary Kawena Pukui Cultural Preservation Society.

Before the night's formal program, attendees moved through an exclusive preview of Bishop Museum's newest exhibition, *Explore EXCORE: the Art of Underwater Science*, which you can read about in "Explore EXCORE" on pages 8–9 of this issue.

KITV4 Island News anchor and reporter Lei U'i Kaholokula hosted the evening's program, which introduced guests to the new President and CEO of Bishop Museum, Kristofer Helgen. Bishop Museum's supporters and community partners enjoyed hula and mele by Hālau I Ka Lima Kuhi Lani, the Mary Kawena Pukui Cultural Preservation Society, and 2025 Nā Hōkū Hanohano Award Winner for Hawaiian Language Performance, Eric Lee. A delicious four-course meal was served by Chef Chai.

SPECIAL MAHALO TO
Hālau I Ka Lima Kuhi Lani
JSS by Design
Kona Brewing Hawai'i
The Mary Kawena Pukui Cultural Preservation Society

Photos by Jon Asato/Bishop Museum.



Photo by Noel Kenny/Bishop Museum.

Cultural Resources Data Manager, Informatics Department

La'akea Ai

Aloha nui kākou! As the Cultural Resources Data Manager in the Informatics Department, my day-to-day duties can vary greatly. It is my privilege and responsibility to support the humanities departments in all things data and digitization. These departments include Ethnology, Archaeology, the Natural Sciences, Library & Archives, and Registration. I work closely with Collections Managers and Curatorial staff to centralize all of the existing metadata into a new collections management database called EMu (Electronic Museum). This work can look like: data cleanup and standardization, assisting photography and oral history projects, creating workflows for new digitization projects, and supporting staff in learning how to use EMu. The Informatics department is a result of Bishop Museum's Digital Futures Initiative to strengthen its digital infrastructure, enhance records, and provide access via online collections.

As we continuously work to make online collections a reality, Informatics has simultaneously introduced *Mau ka Leo*, a storytelling space for Bishop Museum with over 250 stories

published to date. *Mau ka Leo* is a highly collaborative effort that engages staff across the institution into remembering and retelling the stories of the collections they care for. Oftentimes a singular story can be told through multiple objects that come from different departments, providing the reader with a new and unique story, never before told. We also recognize that some stories remain within our community; they are in the memories of our kūpuna and our cultural practitioners. It is our hope that we can be a tool to amplify these voices through *Mau ka Leo*.

I am grateful to work for an institution that is prioritizing digitization and access. Positions like mine are fairly new within the museum sector; all of my duties would normally lie with collections staff. I am happy that Informatics is able to take on these responsibilities so that our peers can focus on collections management and curation. We are excited for the potential that EMu has to transform how we work and how we engage with communities near and far. Stay tuned, we're just getting started!



STRENGTHENING FOUNDATIONS

A Mahalo to Our State Leaders

By Janet Bullard

Vice President of Advancement and Marketing Communications, and Acting Director of Government Relations

Sincerest mahalo to our State Leadership — Governor Green, Lt. Governor Luke, and our Legislators — for their ongoing support of Bishop Museum. As the State Museum of Natural and Cultural History, our kuleana involves the stewardship of our unique and irreplaceable collections and active research in environmental stewardship so that all of the knowledge we hold, and our fragile 'āina are thriving for future generations.

The funding has allowed us to address critical infrastructure issues such as IT modernization, deferred building repairs and maintenance, data security and storage, improved conditions for our collections, and expanded capability to share the knowledge we hold. We are committed to serving our community for generations to come and are truly grateful for the support of our State leadership!



Ross Yamanaka

1966–2025

Ross left us on April 29, 2025. As a talented graphic designer, illustrator, and artist, he was an integral part of the visual expression of the Museum for nearly 20 years. He was irreverent, often politically incorrect, a stickler for excellence, and had a wry sense of humor. He held himself to high standards, sometimes impossibly high. He enjoyed movies, reading, writing, video and board games, food, collecting art and Stephen King special and first editions; he didn't like sunlight. Among us, his coworkers, he was famous for creating clever caricatures and writing poems and ditties.

Ross grew up on Pāhoa Avenue in Kaimukī, graduating from Kaimuki High School in 1984 and later receiving a degree in commercial art from Honolulu Community College. He passed away in a place full of his friends and colleagues, his community for two decades. We are grateful for his fine work and for the time he spent with us. He is loved and missed.



Preserve the Past. Shape the Future.

By making a bequest to Bishop Museum, you interweave your legacy with the enduring stories of Bernice Pauahi Bishop, Charles Reed Bishop, and all those whose culture, scholarship, and science lives on at the Museum.

Learn how you can join the Mary Kawena Pukui Society by making a planned gift to Bishop Museum. Visit bishopmuseum.org/legacy.

“When you think about leaving your legacy, you think about what’s given you joy in your life over the years, and how you can give back to that. For me, Bishop Museum is the choice.”

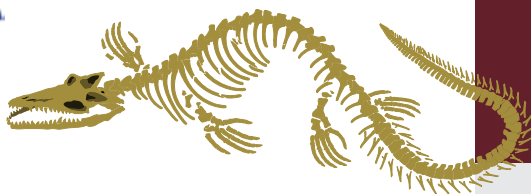
—Nancy Lueck, Mary Kawena Pukui Society Member



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Expedition Dinosaur: Into the Deep is a world-class science attraction that brings the wonders of Mesozoic oceans and prehistoric life to audiences of all ages. This exhibit blends cutting-edge science with immersive storytelling to spark curiosity and inspire learning. Combining animatronic dinosaurs and marine reptiles, fossil replicas, interactive displays, and a fully immersive theater experience, it offers a visually stunning and engaging journey into Earth's ancient past.

On View

May 24, 2025–January 25, 2026

Bishop Museum inspires our community and visitors through the exploration, celebration, and perpetuation of the extraordinary history, culture, and environment of Hawai'i and the Pacific.

Development	808.847.8281
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Information	808.847.3511
Membership	808.847.8296
Shop Pacifica	808.848.4158

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If you have questions about this issue of *Ka 'Elele*, please contact the Bishop Museum Institutional Advancement Division at 808.847.8281.

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@BISHOPMUSEUM

“O kū! O kā!” ‘o Wahine‘ōma‘o.

“Kū and kā,” says Wahine‘ōma‘o.

While walking toward Hilo one day, Hi'iaka met Wahine'ōma'o shivering by the roadside with a pig in her arms—a gift for Pele. Hi'iaka suggested that she start walking to Kīlauea chanting, “O kū! O kā!” Before long, Wahine'ōma'o had reached the volcano, given her offering, and returned to meet Hi'iaka, whom she followed on the long journey to Kaua'i. “O kū! O kā!” cannot be translated. However any work done hurriedly might be referred to this way, meaning “with a lick and a promise.”

SELECTION NO. 2475 FROM MARY KAWENA PUKUI'S
‘ŌLELO NO'EAU: HAWAIIAN PROVERBS & POETICAL SAYINGS,
BISHOP MUSEUM PRESS, 1983.