

# SBnature Journal

SANTA BARBARA MUSEUM OF NATURAL HISTORY

Meet the Next Generation of  
Museum Taxidermists

**PREY TAXIDERMISTRY**

**WELCOME TO  
YOUR NEW  
EXHIBIT HALLS**

The Journey of Mammal  
and Bird Halls and New  
Santa Barbara Gallery

A Brief History of  
the Transformed  
Exhibit Halls

**ART  
CRAFT  
SCIENCE**

Sea Center Stallions

**BLIND DATE TO  
SAVE A SPECIES**

Announcing New

**SUSTAINING PATRON'S CIRCLE**



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## A NOTE FROM LUKE

President & CEO

*I think you will agree that we are a place that truly is powered by science, inspired by nature.*

Hello and thank you to all who have expressed their concern and support for the Museum and Sea Center during the first tragic months of the year. I can report that while our operations were impacted for several weeks, neither the Museum nor the Sea Center suffered damage during the Thomas Fire, and activities and attendance are back to anticipated levels as we start what promises to be an amazing summer.

In fact, these last few weeks have been an incredibly intense and exciting start to our busiest season of the year. We began on a deeply serious note with the Museum taking the lead in co-organizing a free town hall at the Granada Theatre on April 25 to help advance a community conversation about how to improve our readiness and response to natural disasters driven by climate change.

We pivoted on May 5, when Fleischmann Auditorium transformed into four of Santa Barbara's distinct habitats as guests enjoyed our 19th Annual Mission Creek Gala, *Phenomenal Santa Barbara: Experience the Extraordinary*. This was one of our most successful Galas ever, raising over \$450,000 to support the Museum's education programs.

Memorial Day weekend saw the opening of our summer show, *50 Greatest Photographs of National Geographic*, in Fleischmann Auditorium. Walking through these strikingly iconic images from the magazine, together with explanations of the story behind each photo, provides tremendous and sometimes poignant awareness of the bounty and fragility of the human and natural worlds.

Just one week later, on June 2 we reopened the eastern suite of our galleries after ten months of renovation. It was satisfying for all at the Museum to see the overwhelmingly positive response from our members and visitors as they discovered our restored and transformed halls. I invite you to read more about these new spaces later in this issue.

Work on the Norman F. Sprague III Butterfly Pavilion, the Museum Backyard, and Nature Club House is nearing completion, and those highly anticipated areas will be "revealed" to visitors this fall.

The Sea Center likewise abounds with activity this summer, hosting locals and tourists alike. Over 2,800 visitors enjoyed World Oceans Day on June 9, and our popular Live Dive summer program provides the public a chance to interact with staff in real time as our aquarists suit up in scuba gear to take a close-up look at life in the Santa Barbara Channel.

In short, we are only halfway through the year and the Museum and Sea Center continue to provide a dizzying and dazzling array of programs, exhibits, adventures, and experiences for all. Come and visit us, and I think you will agree that we are a place that truly is *powered by science, inspired by nature*.

Luke J. Swetland  
President & CEO

# UPDATE

## Centennial Campaign & Renovations

Following many years of planning and fundraising, we are finally nearing completion of the Centennial Project!

Since work began last September, every diorama in Mammal Hall has been comprehensively restored and updated with new or refurbished taxidermy, LED lighting, interpretive panels, paint, acoustical treatments, and hands-on elements. We took the same approach in Bird Habitat Hall by refreshing, relighting, and reinterpreting our Ray Strong dioramas. The updated space now perfectly complements the adjoining Dennis Power Bird Hall. Cartwright Insect Hall was transformed into the new Santa Barbara Gallery with three main goals: to explain how our region's natural dynamics create a biodiversity hotspot, to squarely engage visitors in a conversation about the human impacts that threaten our diversity and the human actions that have served to protect it, and to inspire our visitors to go out in nature and explore the diverse habitats themselves.

If you haven't visited the Museum recently, you'll notice that even your walk to our front door is



dramatically different. We've created pedestrian-safe and fully accessible paths from Mission Canyon Road and our parking lot. New landscaping, boardwalks, and carefully placed collection items let the Museum experience begin outside our front door. The beautiful historic Hazard estate wall has been restored and is completely visible after years of hiding under overgrown bushes. Finally, the re-landscaped Channel Islands Garden now perfectly frames our Blue Whale skeleton, Chad, while our new

arrival plaza provides a safe and attractive muster area for school groups and families alike. Over the next several weeks, the Sprague Butterfly Pavilion and the Museum Backyard and Nature Club House will be completed. We hope to reveal them to the public in early fall with our fabulous *Butterflies Alive!* exhibit running through October. The Centennial Project will conclude with a ribbon-cutting ceremony on Friday, September 7, one year from when we kicked off the renovations.

Thanks to overwhelming support from the community, we met our \$10 million Challenge Grant and raised a total of \$18.6 million. We hope to completely wrap up our \$20 million Centennial Campaign by the end of the year, and have recently launched an exciting project to complete fundraising (see page 38). With your help, we can achieve this goal and make the Museum better than ever for generations to come.

On Friday June 1, 2018, after years of thinking, planning, designing, and building, we opened the doors to three completely refurbished exhibit halls: Mammal Hall, Bird Habitat Hall, and new Santa Barbara Gallery.

At the beginning of the exhibit design process we were faced with the choice of refreshing the look of the halls in order to preserve their historical authenticity, or taking on significant renovations. After much discussion we determined that, if we were thoughtful, we could do both.

Keeping the history of our halls alive was a simple choice. Figuring out how to honor that history while simultaneously moving the Museum into the 21st century was a little more complicated. It was, however, important for us to do so.

The world has changed dramatically over the past 100 years, as have the fortunes of wildlife and wild places. There were "just" two billion people on the planet in 1929 when Mammal Hall was created. Now there are nearly eight billion. As the human population increased, our natural areas and the species they support faced new challenges. Their long-term prospects have changed: some for the better, many for the worse. It quickly became clear to us that we had a responsibility to shed light on our natural future as well as our natural history.

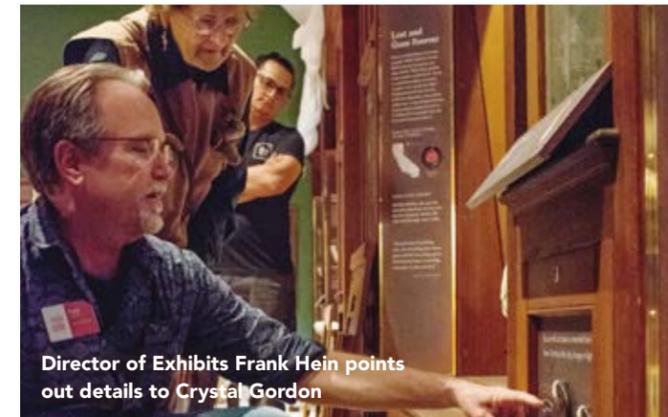
But how could we update the halls so that they remained historically genuine, while leaning purposefully into the future? The term "threading the needle" comes to mind.



## WELCOME TO YOUR NEW EXHIBIT HALLS

The Journey of Mammal  
and Bird Halls and New  
Santa Barbara Gallery

by Director of  
Exhibits Frank Hein



Director of Exhibits Frank Hein points out details to Crystal Gordon



The exhibits team (left to right): Exhibits Coordinator Francisco Lopez, Director of Exhibits Frank Hein, Exhibits Administrative Assistant Florine de With, Senior Exhibits Manager Debra Darlington

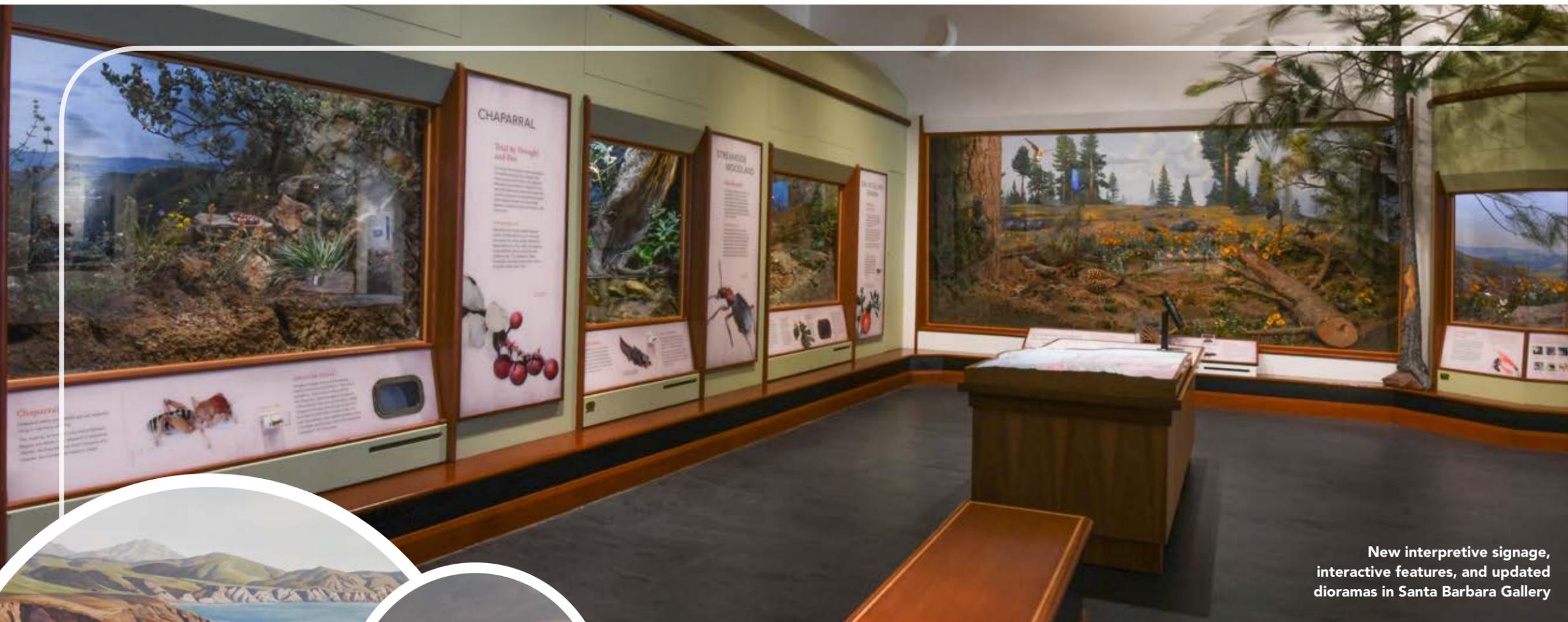
Let's begin with Mammal Hall. We consider Mammal Hall to be something of a chapel to the natural history of our region. Its look and feel is, in a real sense, sacred. We approached the design process with that thought in mind. We took out all the items that had been added over time, to bring the hall back to what its creators intended. We discovered that the original hall had rounded windows in all the small dioramas and we brought that detail back. As we worked, we were thrilled to discover that, rather than looking modern, the hall was beginning to look as it would have in its original form! We spent months choosing the right color and texture for

new interpretive panels so they would "belong." We replaced every screw and 485 brass fittings with new, freshly polished hardware. We oiled the ancient redwood panels to bring back their original feel. And then, we carefully layered in new content, touchable items for our youngest learners, sketches and stories, lighting, and a couple of hundred other little touches, in a way that melded with the hall's character.

As we headed into the home stretch, we asked ourselves: "Would Ray Strong, or Max Fleischmann, or Egmont and Arthur Rett approve if we could teleport them to the present and show them the new halls?"

Remarkably, in a way, we got the answer to that question when Egmont's daughter Crystal visited with her family as the halls were nearing completion. Their reaction was one of gratitude, excitement, and joy. That visit ended with hugs all around and a promise to visit again soon. With just a month and a half to go, we doubled our efforts, confident that we were on the right track.

Vintage taxidermy specimens (many prepared by the Rett brothers) were fully restored by specialists. Deer, elk, bears, birds, and bugs were dusted off, repaired, airbrushed, and returned to their rightful places. Only specimens that were too far



**New interpretive signage, interactive features, and updated dioramas in Santa Barbara Gallery**



gone to be repaired were replaced with new, high-quality mounts. For months, the hall had begun to look special, but as we added the finishing touches, something interesting happened. It began to feel special: like the old hall must have felt when it was new. It was only then that we felt we'd accomplished our goal. When you visit, we're confident you'll feel it, too.

Bird Habitat Hall received the same level of attention. To a high degree, the room itself dictated the character of the

improvements. The room was opened up, and new interpretive panels and interactive features were added. Of course, in honor of the original bird hall—and our origins as the Museum of Comparative Oology—we also added eggs, nests, feathers, and more. It was in Bird Habitat Hall that we received a very pleasant surprise. The modern lighting system we'd installed in all the new halls not only lit the dioramas better than ever, it transformed the Ray Strong murals. The ocean, clouds, and trees suddenly came to life. So much so that we're now asked by our visitors how much we

spent to restore the paintings. They look new because we were finally able to light these masterpieces in the way Ray would have wanted. As with Mammal Hall, you don't just see the art in the dioramas. Now, you feel it.

The old Cartwright Hall presented our best opportunity to interpret the ecology of the Santa Barbara region in a new and different way. While the diorama room received the same attention to detail and reverence for history as Mammal and Bird Habitat Halls, much of the space lent itself to a new look. The Museum has long wanted to

create a space where we can showcase what makes the Santa Barbara region ecologically special. It became clear that it was time for Cartwright Hall to transform into Santa Barbara Gallery.

Insects remain a primary focus of the hall, but in tandem with new ecological stories, powerful graphics, and an optimistic look and feel. There's also a new insect display that presents the science of insects in an incredibly artful manner, thanks to the creative mind of our new Curator of Entomology Matthew Gimmel, Ph.D.

And there's something else that's very new. A significant portion of Santa Barbara Gallery is devoted to conveying the science behind ecological changes that our region and the world are now experiencing. It can be a challenge to find reliable information about climate change, increasing fire frequency, flooding, and more. We have long served as a trusted and unbiased resource for rigorous scientific knowledge, and in this space, we continue that legacy with a particular focus on ecological change.

As new science emerges, or regional events warrant, you can expect us to keep visitors current and informed. Contrary to popular belief, there's a wealth of positive news to share and we'll present that, too.

We could tell you much, much more about what we've created, but talking about the new exhibits can only go so far. To really feel the new exhibits, you've got to experience them for yourself.

A woman with dark hair, wearing a light-colored long-sleeved shirt and brown overalls, stands in a diorama of a forest. She is holding a taxidermy owl in her right hand, looking up at it with a smile. The background is a painted backdrop of a forest with tall pine trees, a blue sky with clouds, and a field of yellow and blue flowers. A large tree trunk is on the left side of the frame.

## PREY TAXIDERMISTRY

Meet the Next  
Generation of  
Museum Taxidermists

The dioramas at  
Santa Barbara  
are just so  
extraordinary...  
There are all  
these little hidden  
things, always  
new things to see.

When you stand in front of a historic diorama at a natural history museum, marveling at the lifelike taxidermy, the cunningly-painted forced-perspective mural, the exquisite faux foliage, and other artfully naturalistic details, you might find yourself thinking, "They don't make 'em like this anymore." But you'd be wrong. We still make them that way, with the help of a new generation of museum professionals who specialize in diorama magic.

Museum professionals often worry about where the next generation of museum-quality taxidermists will come from, and there's reason for concern that the craft could die out as legendary figures in the field retire. But that doesn't have to happen.

"I remember when I was young, going to the American Museum of Natural History in New York City, being absolutely blown away by these beautiful windows into nature," recalls Allis Markham, taxidermist and owner of Prey Taxidermy in Los Angeles. "You go into these dark halls, with this old wood, and it's got this very historical feel to it, and you're looking at these bright habitat scenes. It's not even something you can get in a zoo. Only in a diorama can you get this kind of frozen view of nature as scientists feel it should be."

SBMNH's Exhibits Department—headed by Director of Exhibits Frank Hein—believed in Markham's passion for dioramas and her skill as a taxidermist, and was pleased to hire her to do Prey's first big

museum commission. "We knew they would bring their A game, and they did," Hein says with satisfaction. Prey delivered more than 50 new mounts to enrich Mammal Hall, Bird Habitat Hall, and Santa Barbara Gallery, helping those exhibits showcase regional diversity and species interactions as never before.

"The dioramas at Santa Barbara are just so extraordinary," says Markham. "There are all these little hidden things, always new things to see." Those details are carefully coordinated by an interdisciplinary host of museum professionals, from curators in our Collections and Research Center, to other outside contractors like the diorama professionals from Dixon Studios, to the Museum's own exhibits staff. Markham relishes how diorama work brings a taxidermist into collaboration with other artists and scientists.

Markham doesn't have a degree in taxidermy, because, as she explains, "there are no four-year university [programs]. I think you'd be hard-pressed to find a college that had a taxidermy course." Taxidermy knowledge is passed from mentors to apprentices, so Markham started her taxidermy career as an apprentice under master diorama taxidermist Tim Bovard at the Natural History Museum of Los Angeles County. Bovard remains her mentor, and visited SBMNH to assist with some of the challenging preparation and installation work. "Working under Tim is a huge benefit to me," says Markham. "I'd never done



Markham and Bovard prepare mounts for installation with the help of Olivia Miseroy (pictured bottom right) and supervision from Director of Exhibits Frank Hein and President & CEO Luke Swetland (pictured right).



pinnipeds before, so when I took on this project, it was great to have my mentor there." During more than 35 years at NHMLA, Bovard has replaced many of the animals in the beautiful and impressive dioramas there, so his experience is deep and wide-ranging.

Markham was also assisted by Hollywood prop-maker Olivia Miseroy, who cast incredibly realistic feet, tails, tongues, and an elaborately-painted

Ceanothus Silkmoth Caterpillar. Additionally, Markham's team at Prey includes her assistant Paloma Strong, who started learning from Markham at 16, nearly three years ago. "This is truly a legacy project," says Markham, "because it's three different generations of taxidermists working in a historical museum. These [specimens] are going to be there for at least 50 years." That's plenty of time to inspire the next generation of nature-lovers and diorama artists.

Hein adds, "In addition to benefiting from Prey's creativity and attention to detail, the Museum is proud to support some of the best emerging talent in the field. It's rewarding that now, when asked where to find the next generation of museum taxidermy professionals, I can just smile and say, 'right over there.'"

inding  
Refuge

After centuries of being hunted  
for the hides and meat,  
California Sea Lions received  
protection under the United  
States Marine Mammal Protection  
Act in 1972. California Sea Lions  
reside only on offshore islands,  
which makes the conservation of  
these places extremely important.

HOW ARE THEY DOING  
IN CALIFORNIA?



WHAT'S FOR DINNER?  
California Sea Lions can eat from  
5 to 10 pounds of anchovies,  
squid, clams, and various small  
fish every day.

# ART CRAFT SCIENCE

A Brief History of the  
Transformed Halls



California Sea Lion exhibit in 1928 and 2018

It's Cold  
Down There

Heat loss in water is about  
27 times faster than in air,  
and sea lions have adapted  
thick layers of blubber to help  
them stay warm. They've also  
evolved specialized networks  
of veins and arteries that run  
through their flippers to keep  
extremities working during  
deep dives into frigid waters.



### A CLOSER LOOK

Sea lion and seal whiskers  
are very sensitive, and can be  
manipulated independently  
(much like your hand), to sense  
nearby obstacles or subtle  
movements of prey.



If the Museum was part of your childhood, chances are you've enshrined our halls in your memory. You may have wondered (or even worried about) whether it was possible to update the halls without losing the history that makes them so special. We wondered about that, too. Actually, we obsessed over it. When you visit, we think you'll be pleasantly surprised to discover that while much has changed, the historic character remains intact. We were able to honor our history because we understand and value it as much as you do.

As an institution, we rely on Museum curators like Librarian Terri Sheridan to preserve our memories. Not only does she keep the library organized and accessible, she oversees a large collection of documents and ephemera connected to SBMNH history. If you sit down for story time with Sheridan, you're guaranteed to learn something interesting about the Museum, like our connection to one of America's greatest panoramic painters, Thomas Moran.

Though his works are beautiful, Moran wasn't only interested in painting pretty pictures. Before photography became more accessible, panoramic paintings of unspoiled wilderness in the American West functioned like activist photojournalism. Works like Moran's 1872 *Grand Canyon of the Yellowstone* influenced political decision-makers to set aside land for preservation. In the early 1900s, this style of painting was repurposed to create backdrops for museum dioramas, which cultivated the love of nature and an interest in conservation among the general public. To create realistic,



Artist Ray Strong painting Laguna Lake in 1965, overlaid on the diorama as it appears after our transformation

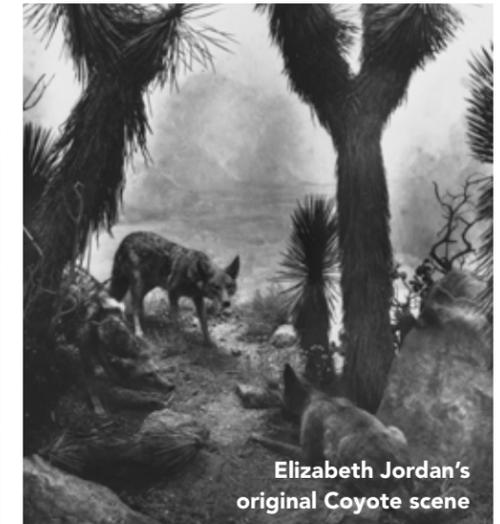
seamless vistas, artists painted on curved walls and used forced perspective to fool the eye.

Moran lived in Santa Barbara at the end of his life, and was a Resident Artist at the Santa Barbara School of the Arts (SBSA). He inspired many painters working and studying here. The SBSA is the link in the chain tying Moran—a true American icon—to the artists who painted our earliest dioramas. SBSA founder Fernand Lungren had strong ties to our Museum, even from its early years as the Museum of Comparative Oology (the study of eggs and nests). “The School of the Arts sort of had fingers out into all of the cultural institutions that were happening in Santa Barbara at that time,” Sheridan explains. And during the 1920s, “as far as museums, we were the only game in town. So there was a cross-pollination of talent. Many of our artists in residence were also teachers at the School of the Arts.”

Lungren used his influence in the local art world to mobilize SBSA colleagues Carl Oscar Borg, Howard Russell Butler, and Cadwallader Washburn to paint



“Desert Bird Group” painted by Fernand Lungren for Little Bird Hall, as it appeared in 1923



Elizabeth Jordan's original Coyote scene

for the Museum's early exhibits representing bird groups and habitats in Little Bird Hall. From 1922-1960, Little Bird Hall filled the space now occupied by Gem & Minerals Hall. Lungren painted a grand, 21-foot-long Mojave Desert scene for the “Desert Bird Group” in 1925. These dioramas were deconstructed around 1960 as the specimens prepared to migrate to the much larger Bird Habitat Hall. In 1962, a fire in the collections—caused by a faulty electrical plug—tragically destroyed records, damaged specimens, and consumed many of the taxidermy mounts awaiting transfer.

Also lost to the ages was a 1927 diorama of coyotes in a desert scene painted by Elizabeth Jordan (later repainted by Lilia Tuckerman), removed from Mammal Hall to create a doorway when the space was expanded c. 1960. Jordan's background for the Gray Wolf diorama remains in place today, and—as with other dioramas in the transformed halls—has benefited from restoration and enhancement by our exhibits team, Dixon Studios, and Prey Taxidermy, with interpretive materials added by Gallagher & Associates and Cinnabar. This year, coyotes returned to Mammal Hall via the

playful Mission Creek scene, in which a mother coyote brings a meal home to her pups in the den below. The young coyotes are adorable, touchable, and strategically placed at kid height.

Because of our roots in oology, mammals weren't displayed at the Museum in the earliest days. Our first exhibits were strictly bird-centric. In addition to the bird group dioramas in Little Bird Hall, an adjacent hall housed cupboards of nest and egg specimens which were open to the public to explore. (Was this like a 1920s version of the

Curiosity Lab? One might speculate that it was quieter.) In the mid-1920s, the goals of the Museum's Board of Trustees expanded beyond birds, and founder W.L. Dawson was edged out of his leadership role. Soon after, the creation of Mammal Hall was bankrolled by nature-loving, big-game-hunting, yacht-sailing yeast tycoon Max Fleischmann, whose impact on the Museum extended well beyond the exhibits.

Fleischmann funded bounties that allowed the Museum to



Curator of Entomology Matthew Gimmel, Ph.D. places a velvet ant.



Egmont Rett (center) and his brother Arthur (right)



Crystal Gordon (daughter of Egmont Rett) identifies her father's contemporaries in historic photos, working beside Librarian Terri Sheridan (left).

Read more about the history of these halls on the SBnature Blog at

 [sbnature.org/blog](https://sbnature.org/blog)

acquire new specimens. The job of preparing these fell to a pair of brothers who were renowned taxidermists: Egmont Rett and Arthur "Swede" Rett. Their expert work brought beautiful painted landscapes to life. In April 2018, Egmont Rett's daughter Crystal revisited Mammal Hall, inspecting changes and bringing joy to Director of Exhibits Frank Hein with her words of approval: "Dad would have loved this."

Rett also painted some of the backgrounds in Mammal Hall, as did Norton Stuart, another multitalented taxidermist. Stuart's romantic mountainscape behind the Black Bears remains intact, but this year the landscape he painted for the Mule Deer diorama was replaced, as it no longer appeared as intended. Whether this was due to chemical instability in the paint or an inexpert touch-up job isn't known, but the replacement artwork by professional muralist Jan Vriesen captures a powerful sense of space and injects more lifelike details. Vriesen was also commissioned to paint artwork for the Mission Creek diorama, some smaller dioramas, and the chaparral burn cycle diorama in Santa Barbara Gallery. Formerly a vitrine which blocked the center of the room, the burn cycle diorama has been nestled into the wall and dignified with Vriesen's mural of chaparral plants recovering from a fire, which he researched on local field trips with exhibits staff and curators.

Curators work closely with our exhibit design team to ensure that habitats and specimens are portrayed with scientific accuracy. Curator of Vertebrate Zoology Krista Fahy, Ph.D. took a very

hands-on approach to the recent arrangement of eggs and nests in Bird Habitat Hall. In some instances, a consulting role takes a heroic measure of elbow grease, as in the case of our entomological diversity displays, which contain hundreds of carefully pinned specimens. The 1991 display in Santa Barbara Gallery (then Cartwright Hall) was constructed by a dedicated team including current Curator of Malacology Paul Valentich-Scott, while its most recent incarnation was assembled in large part by Curator of Entomology Matthew Gimmel, Ph.D. and Senior Exhibits Manager Debra Darlington. Matt and Debra also painstakingly added many new insect and arachnid specimens to the dioramas throughout the Santa Barbara Gallery. The backgrounds of those dioramas—painted by *plein air* master Richard Schloss in the early 1990s—are holding up well, and they've been enhanced with new taxidermy and new cast and modeled specimens.

If there's a single person whose enduring paintings stand out in our halls, it's Ray Strong. Hired by the Museum in 1960, Strong—colleague of Maynard Dixon, friend of Ansel Adams, and accomplished artist in his own right—painted all of the scenes for Bird Habitat Hall. Strong also repainted the mountain meadow in Hale-Harvey Botany Hall (as the upper level of Santa Barbara Gallery was then known, in recognition of Jeanne Hollister Hale and Katherine Harvey). His murals benefit as much from his knowledge of regional landscapes as from his technical skill as a painter; they capture the shapes, light, and relationships of elements in real places he visited, natural treasures beloved to locals.

Typewritten notes from one of Strong's scrapbooks in the Museum's archive indicate the challenges exhibit coordinators have always faced in lighting diorama scenes. The Goleta Beach shorebird diorama in Bird Habitat Hall couldn't have ordinary beach sand underfoot, because it took on a lifeless hue beneath the overhead fluorescent lights then in use. Instead, sands of different colors were sourced from Monterey, San Marcos Pass, and the outskirts of Santa Barbara to warm the palette. Lighting dioramas is still difficult; it's hard to mimic natural light in confined, artificial conditions. But the transformed dioramas have made huge strides with a new lighting system that allows exhibits staff to custom-tune the atmosphere and bring paintings and dioramas to life in a new way.

We like to think that we've come a long way from the mid-sixties, when a scene of a Cooper's Hawk swooping down towards a covey of California Quail was deconstructed because the implied violence of predator-prey relations aroused controversy. The overarching goal behind the most recent exhibit transformation was to illuminate rather than conceal interspecies interactions, including human impacts on the natural world of which we are a part. In that way, the history of the halls is a microcosm of the interdependency they illustrate: it takes a whole ecosystem of exhibit designers, artists, scientists, coordinators, craftspeople, and donors to create the exhibits that inspire, delight, and inform.



Photo by Joanna B Pinneo



Photo by Chris Johns



Photo by Sam Abell



Photo by Bruce Dale

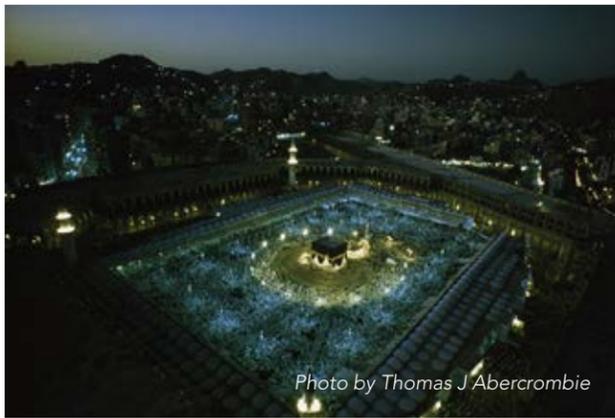


Photo by Thomas J Abercrombie



Photo by Jodi Cobb

# 50 GREATEST PHOTOGRAPHS



## Now–September 3, 2018

*This exhibition is organized and traveled by the National Geographic Society.*

The Museum's summer exhibition, *50 Greatest Photographs of National Geographic*, showcases some of National Geographic's most compelling photographs. From Steve McCurry's unforgettable Afghan girl to Nick Nichols' iconic image of Jane Goodall and chimpanzee to Thomas Abercrombie's never-before-seen view of Mecca, the exhibition includes some of National Geographic magazine's most-remembered and celebrated photographs from its nearly 130-year history.

In addition to seeing the photographs as they appeared in the magazine, visitors to the exhibition will learn the stories behind the photos and more about the photographers themselves. For some images, visitors will be able to see the "near frames" taken by the photographer: the sequence of images made in the field before and after the perfect shot.

President & CEO Luke Swetland shares, "As the Museum prepared to open our newly renovated galleries, we looked for a summer show that would celebrate nature and our relationship with it. The National Geographic exhibit is visually powerful, rich in nature, and thought-provoking: all traits that our renovated galleries manifest as well. It makes for an exceptional pairing."

Director of Exhibits Frank Hein adds, "Seeing these images in a large-format gallery setting is surprisingly moving, and the stories from the photographers describing exactly how they got the shot add tremendous value. The way they're presented, you don't merely 'see' the pictures in this exhibit; you experience them in a powerful way."

Free with paid admission, the summer exhibition is on display through September 3, 2018 in Fleischmann Auditorium.

### Thank you to our Business, Foundation, and Media Sponsors





# The Art of Natural History

Rare Treasures from the Museum's Antique Print Collection



Now through September 3, John and Peggy Maximus Gallery at Santa Barbara Museum of Natural History is exhibiting 50 rare historic prints from its unique collection of more than 3,500 engravings and lithographs relating to the history of scientific research and exploration. The collection spans the period from approximately 1600 to 1900 and encompasses all subjects of natural history.

The purpose of natural history art is to assist scientists in their work to identify, describe, classify, and name species. Many of the illustrations were made during an era of exploration. Naturalists aboard European voyages to other lands

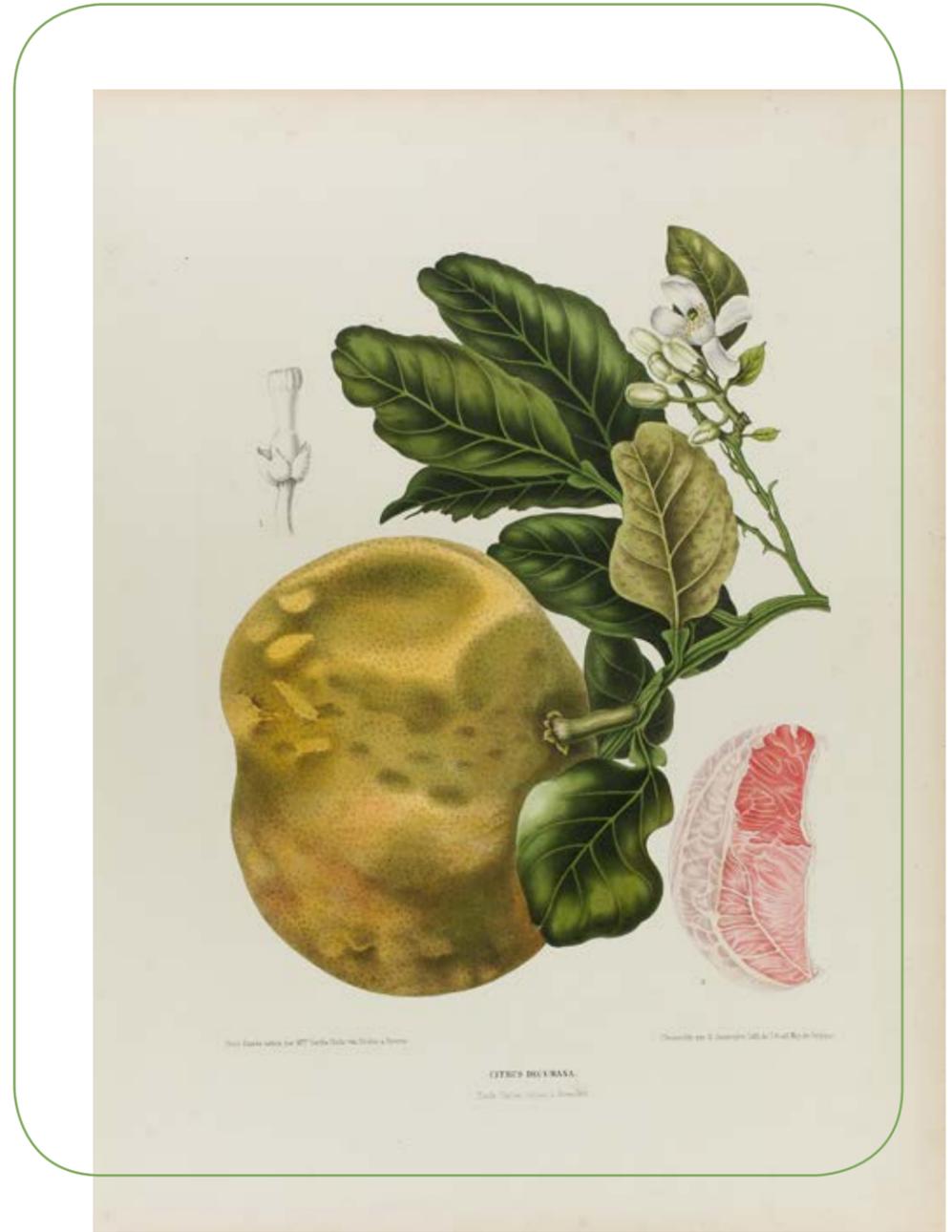
documented their findings and brought back vast collections of plants and animals new to science. Because images captured nature in ways that complemented written descriptions, a visual record became an essential element of this process. These detailed illustrations were published in significant numbers so that others could share information.

Maximus Gallery Curator Linda Miller shares, "These unique works give us a glimpse into history and how the sciences developed. For our summer show, we selected images that correlate to the Museum's extensive natural history collections of more than 3.5 million objects. These objects, including

our antique prints, are used for research by our curatorial staff as well as visiting scientists from around the world. They provide valuable data and serve as a vast archive for ongoing investigations."

Resources that began as fundamental tools for scientific inquiry became prized works in themselves and were sought after for their intrinsic beauty—a blend of art and science.

Free with paid admission, the summer exhibition is on display through September 3, 2018 in Maximus Gallery.





# BLIND DATE TO SAVE A SPECIES

Sea Center  
Stallions

The Sea Center is about to welcome 50 adorable juvenile abalone to a new exhibit. But where do baby abalone come from? If you're keeping up with us, you may have read Live Collections and Husbandry Manager Thomas Wilson's account of the Sea Center's participation in the White Abalone Captive Breeding Program (WACBP). On July 5, that work will reach a climax when the WACBP's partner facilities—including the Sea Center—will once again trigger their abalone to spawn, sharing gametes among institutions to produce the next generation. This wholesale blind date is critical because White Abalone are endangered. They're endangered because they're delicious, and that's one of the abundant good reasons for humans to help out with the continuation of the species.

The WACBP—currently led by UC Davis's Bodega Marine Laboratory (BML)—has strived to foster new generations of abalone since 2000. The program suffered major setbacks in its first decade, as the

bacterium behind withering foot syndrome killed off much of the brood stock. Researchers now know how to protect abalone from that threat, and that's why only pristine, chilled, UV-treated water circulates in our abalone tanks. They're worth the trouble, as Wilson knows from hours spent caring for them.

On the big day, Wilson gets an early start, coming in at 5:00 AM to assess the animals and prepare a special bath that induces spawning. It's not a romantic bubble bath with candles, essential oils, or seductive background music (though researchers at BML have tried Barry White). The bath is designed not to relax the abalone, but to stress them. In the wild, spawning may occur over a long range of months, and is triggered by environmental cues that are difficult to efficiently replicate in captivity. Fortunately, abalone will release their gametes predictably—and relatively quickly—under certain stress conditions. This beneficial adaptation is common in



invertebrates, who are more likely than the rest of us to seize a final chance to reproduce upon sensing the end is near. Happily for the animals in the breeding program, the stressful bath is brief, and ends as soon as they start releasing gametes.

Once that release begins—after a half hour to a few hours in the bath, and lasting up to an hour for the studliest individuals—Wilson collects the gametes with a pipette and seals them in test tubes for transport. He puts the precious cargo on ice to keep it viable. "Last year I had an ice chest, the whole top of it was full of test tubes of sperm. I never would have expected to say those words in my life, but there it is," he reports. Finally, he delivers the cooler to another partner facility in Southern California, either the Aquarium of the Pacific or the Cabrillo Marine Aquarium. Hopefully females at these institutions spawn eggs in a parallel process conducted that morning, so the whole affair can be consummated. For the Sea Center Stallions (as they are known to some at the BML), this will be their fifth induced spawning; we wish them success.



Wilson measures a young abalone and hand-feeds it kelp.



## PAUL'S I.Z. REVOLUTION

A Curator's Legacy



In 36 years here, Curator of Malacology Paul Valentich-Scott has seen many changes. The size of the Invertebrate Zoology (I.Z.) collection increased by an order of magnitude, and the department moved from a small part of the Collections and Research Center to a space twice as large, with well-lit workspaces, rolling metal cabinets, and undreamed-of technology. When he started in 1982, catalogues were analog, and records typewritten in quadruplicate. "It was a colossal waste of time," he says, recalling the old days.

Valentich-Scott advocated for the acquisition of the first computer here—a suitcase-sized Kaypro—and acted as one of our first webmasters (with Curator of Vertebrate Zoology Krista Fahy). "Whatever made my job easier, I was all in favor of. Typewriters, while they're a cool hipster thing, are really

a pain in the butt." But he's no slouch. He has tirelessly pursued the digitization of specimen records, making details on over 125,000 of our invertebrate specimens available on [www.sbcollections.org](http://www.sbcollections.org). This achievement is typical of his dedication to making collections accessible, and his generosity in public outreach. At a glance, he may seem clam-obsessed, but at heart he is a people person. He's answered countless queries from folks worldwide with questions about invertebrates, and formulated scientific exhibit content that our visitors learn from every day.

Valentich-Scott has achieved all this while doing research, describing new species, and coauthoring (with Eugene V. Coan) the bivalve bible of the Western Pacific. They inherited the project from Valentich-Scott's mentor, Frank Bernard. Frustrated by the lack of a comprehensive guide to

bivalves of the zone, Bernard determined to write such a book himself. When his life was cut short by cancer, Valentich-Scott and Coan "thought we were just going to polish this off and submit it," but it took 12 years to finish the first volume, *Bivalve Seashells of Western North America*. "That was a lot of polishing." In addition to rewriting and expanding the drafted text, Valentich-Scott and Coan illustrated it with hundreds of new photographs. *Bivalve Seashells of Tropical West America* was published in 2012, and Paul plans to finish a third volume before he retires. What then? Eight backburner research projects are beckoning, so keeping busy won't be a problem.

Read more about Paul's work as a curator on the SBnature Blog in the post "Social Science: Sharing Specimens, Data, and Beers in Invertebrate Zoology."



## PALEO UPDATE

### Sea Cow Ribs & Laramendy Mammoth Skull

Dibblee Collection Manager of Earth Science Jonathan Hoffman, Ph.D. is progressing with two hefty projects from Santa Rosa Island: the sea cow site unearthed last fall and the Laramendy mammoth skull excavated in 2016. Preparators at the Mammoth Site in Hot Springs, South Dakota exposed the face and left tusk of our mid-sized mammoth, taking DNA to investigate its genetic relationships to mainland and pygmy kin.

The sea cow ribs are now on display at the Museum. Volunteer preparator Chris Everett (pictured below)—who lugged the heavy fossil from the site and has carefully cleaned it—says its most fascinating feature is how the cross-section shows high bone density. Sirenians rely on extra weight in their bones to stay low in the water as they feed on sea grasses.

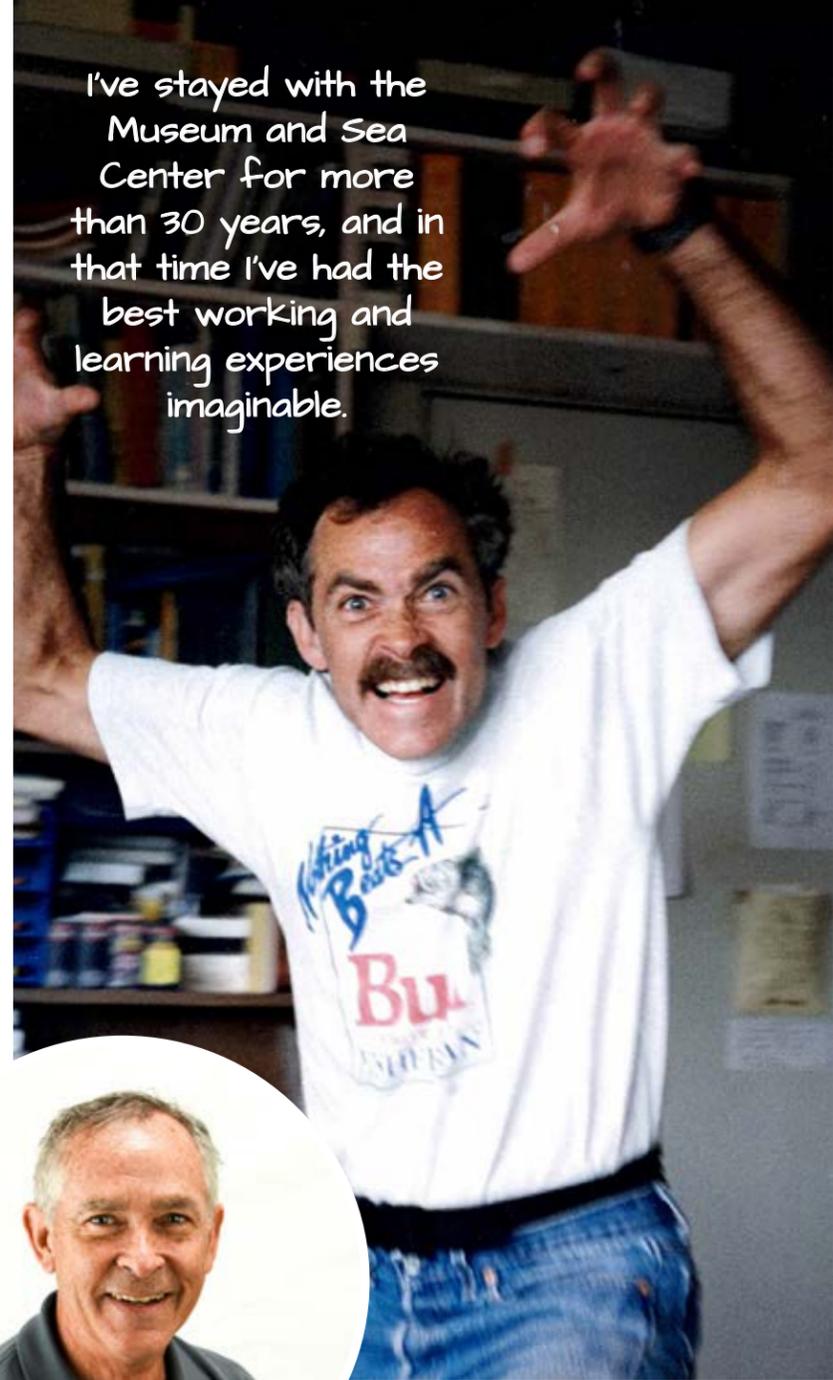


# DISASTER & TRIUMPH

Gary Robinson  
Looks Back

My first week on the job for the Museum was disastrous: an electrical short under the Sea Center set the wharf on fire, severely scorching the building's exterior and damaging exhibits inside. As the Sea Center's new manager, I thought I might lose my job, my house, maybe even my spouse... Instead, all I lost was a desk. During the year we rebuilt the Sea Center, I worked from an empty desk in the Vertebrate Zoology Department. That year gave me the opportunity to explore the richness of the Museum: how it works, what the scientists are doing, and how it relates to Santa Barbara as a unique place on the globe. The Museum encouraged me to participate in whatever ways I could, as long as I advanced its goals and mission. Turns out I share that mission.

I've stayed with the Museum and Sea Center for more than 30 years, and in that time I've had the best working and learning experiences imaginable. Looking backward through those three decades, there are accomplishments, to be sure, measured in halls being renovated or major capital repairs made. But I personally relish most those experiences with Museum staff who took us out to explore nature at home and abroad. Expeditions to the Galapagos, the Sea of Cortez, Magdalena Bay, the Channel Islands, Hollister Ranch, and our local tide pools populate my memory banks. I am grateful to the Museum for supporting my interests, and I sincerely hope that I contributed to its successes. If there is a desire among my colleagues to attribute some kind of legacy to my work as Facilities Director of the Museum, good luck. We were all responsible for it.



I've stayed with the Museum and Sea Center for more than 30 years, and in that time I've had the best working and learning experiences imaginable.



Photo by Gary Robinson

# LET'S BLOG ABOUT IT

On a never-ending quest for truth? Enjoy more behind-the-scenes Museum stories on our blog at

 [sbnature.org/blog](https://sbnature.org/blog)



"Why does Harvard's Museum of Comparative Zoology have a severed albatross head in its collection? SBMNH Curator of Vertebrate Zoology Paul Collins encountered the surreal specimen while researching his book-in-development on the birds of the Channel Islands."

Solve the case in *Museum Mysteries: The Disembodied Albatross*.



"As a young visitor to the Museum, I never really looked behind the taxidermy. I never imagined that there were scientists behind the scenes, managing collections and pursuing their own research. It certainly never occurred to me that collections housed here in Santa Barbara would draw researchers from other institutions worldwide. This reflected not only my lack of knowledge about the Museum, but something I didn't yet understand about science: that it's conducted not by lone wolves, but by pack animals."

Meet the pack in *Social Science: Sharing Specimens, Data, and Beers in Invertebrate Zoology*.



"The Stubby Squid: Does it have a face only a mother could love, or the face that launched a thousand ships? However its gaze may strike you personally, it launched at least one ship, namely, the *E/V* (exploration vessel) *Nautilus*. The *Nautilus* belongs to the Ocean Exploration Trust, and it's the ship that brought the world this astounding face from the depths...and much more."

Dive deeper into Development Officer Melissa Baffa's adventures in *Science Pub: Exploring the Deep Sea Aboard the E/V Nautilus*.

Photo by Ocean Exploration Trust

# MUSEUM LIFE

'My favorite part about this Museum is all the hands-on learning activities. It makes it way more enjoyable rather than just looking at displays. It really helps enhance learning.'  
- Kaya M.



1

- 1. A family gets hands-on at the Sea Center's wet deck.
- 2. Curious guests discover Intertidal Wonders at the Sea Center.
- 3. Card BEARing member poses with a Grizzly at our Members' Party.

- 4. A couple enjoys face painting at our Members' Party.
- 5. Inquisitive Members meet Ivan the Red-tailed Hawk from Eyes in the Sky.
- 6. The whole family is welcome at the Museum!

- 7. Director of Education Justin Canty presents at Science Pub on the importance of nature-based play.
- 8. President & CEO Luke Swetland gives a champagne toast just before reopening the newly transformed halls.



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Photo by Barron Spafford Photography



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Photo by Barron Spafford Photography



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Photo by Barron Spafford Photography



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- 9. Visitors get a first glimpse of our newly transformed Mammal Hall.
- 10. Staff sign the walls of the new Pavilion before a sandstone facade is installed.



10

 [sbnature.org/calendar](http://sbnature.org/calendar)

# A PHENOMENAL NIGHT

## MISSION CREEK GALA 2018

The Museum hosted the annual Mission Creek Gala on May 5. *Phenomenal Santa Barbara: Experience the Extraordinary* was a huge success, raising more than \$450,000. The Gala raises money to support nature and science education programs for schoolchildren, touching the lives of more than 20,000 students each year.

### Save the Date

Saturday, May 18, 2019 For the 20th Annual Mission Creek Gala!

1. The theme was inspired by the new Santa Barbara Gallery and designed by Gillian Valentine Events and Hogue & Co.
2. Committee member Kali Kopley and Heather Hambleton
3. President & CEO Luke Swetland with Trustee Brad Willis and Tony Pusathai
4. Gala guests (standing) Trustee Bobbie Kinnear and Bob Emmons, (seated left to right) Brian King, Lady Leslie Ridley-Tree, Christine Emmons, and Dan Emmett
5. Ian Sheshunoff served as co-auctioneer with Trustee Doug Dreier, pictured here with his dad, Alex Sheshunoff.
6. Blake Jones and Trustee Emily Jones
7. Gala committee members (from left to right) Kimberly Pederson, Chair Stacey Byers, Pam Valeski, Susan Parker, Sheri Eckmann, Pippa Hames-Knowlton, Ginny Bliss, Carolyn Chandler, Bobbie Kinnear, Jill Grant, and Caroline Grange

Photos by Baron Spafford Photography



PHENOMENAL  
SANTA BARBARA



# REMEMBERING JILL

Mission Creek  
Legacy Society

In Fond Remembrance  
of Jill Vander Hoof  
1945-2017



Longtime Museum donor, volunteer, and Mission Creek Legacy Society member Jill Vander Hoof passed away November 22, 2017. Jill was the daughter of Vertress Lawrence Vander Hoof, Ph.D. and Juanita Miller. Dr. Vander Hoof was the Director of the Santa Barbara Museum of Natural History from 1959-1963. Jill graduated from Santa Barbara High School, earned a degree in Biology from San Francisco State University, and did postgraduate work at the Studio Silverio Paoli, Pietrasanta, Italy. An accomplished stone sculptor, Jill's work was recognized nationally and internationally. She worked as an Assistant Professor at Westmont College until 1993.

Ms. Vander Hoof made a thoughtful planned gift in her estate plans to establish the Vertress L. Vander Hoof Endowment to fund operations and acquisitions for the Museum's Library. "Jill was an extraordinary woman. Her philanthropy gave her great happiness. She called the Museum her family. We are so grateful for her vision and for her generosity," said Rochelle Rose, Museum Development Officer-Legacy Giving.

Please consider making a gift in your will to the Santa Barbara Museum of Natural History. You, too, can make a difference and leave a legacy like Jill's to help generations of students, visitors, and researchers at this historic Museum and Sea Center.

For more information contact Rochelle Rose at 805-682-4711 ext. 179, [rose@sbnature2.org](mailto:rose@sbnature2.org), or visit

 [sbnaturelegacy.org](http://sbnaturelegacy.org)



Exploring the Anza-Borrego Desert with the Leadership Circles

## BECOME A MONTHLY ADVOCATE FOR NATURE

### Announcing New Sustaining Patron's Circle

The Leadership Circles of Giving announces its newly launched Sustaining Patron's Circle membership—and we hope you'll join us!

It's easy. As a Sustaining Patron's Circle member, you provide an \$84 per month automatic donation (that's only \$2.78 per day) and join a special group of people who play a critical role in sustaining the Museum: providing support for our educational programming, research, collections, and exhibits as members of the Leadership Circles of Giving.

**Benefits of membership at this level are also an added incentive to join, and include:**

- Invitations to exclusive events throughout the year, including the annual Leadership Circles Dinner
- Customized curator-led behind-the-scenes tours of

the Museum's Collections and Research Center

- Invitations to exclusive field trips featuring unique natural history sites, regional museums, and gardens
- Unlimited guests to the Museum when accompanied by you
- Eight free guest passes for entry into the Museum or Sea Center
- Early registration for your children or grandchildren in the Museum's Nature Adventures camps
- Recognition on the Museum's electronic donor screen and in the Leadership Circles Dinner program
- 20% discount at the Museum and Sea Center stores in December
- Plus all the benefits of Museum membership

The Museum is a place unlike any other...it is a place to wander, explore, learn, and ultimately develop a deeper understanding of the natural world. And with science as our guide, we work to forge natural connections and transform citizens into advocates for wildlife and the environment. As a Sustaining Patron's Circle member, you can make a difference every day!

For more information or to become a Sustaining Patron's Circle member with your monthly (or quarterly) contribution, contact Diane Devine at 805-682-4711 ext. 124 or [ddevine@sbnature2.org](mailto:ddevine@sbnature2.org).

*(Members of the Leadership Circles of Giving contribute \$1,000 or more annually and include the Patron's and Sustaining Patron's, Director's, President's, and Collector's Circle levels.)*

# BE PART OF THE EGGCITEMENT

## Centennial Campaign

*The \$20 million Centennial Campaign we launched with the community's generous support is almost at cruising altitude.*

After years of planning and ten months of construction, we've reopened our exhibit halls and renovated entry, and this fall we'll open the Sprague Butterfly Pavilion and revamped Backyard. We've come a long way since we hatched more than a century ago as the Museum of Comparative Oology. The \$20 million Centennial Campaign we launched with the community's generous support is almost at cruising altitude.

Help us reach our final goal, and we'll recognize your contribution with a beautiful museum-quality replica egg. Your egg will be on display at the Museum until June 2019. Then it's yours to keep as a souvenir of your generosity and the heights we have achieved together.

To become a Centennial donor or for more information visit [sbnature.org](http://sbnature.org) or call the development office at 805-682-4711 ext. 110.

## Available Eggs



\$5,000 +  
CALIFORNIA CONDOR



\$2,500-\$4,999  
GOLDEN EAGLE



\$1,000-\$2,499  
GREAT BLUE HERON



\$500-\$999  
PEREGRINE FALCON

# We SOAR with Your SUPPORT





2559 Puesta del Sol  
Santa Barbara, CA 93105

*SBnature Journal is a publication of Santa Barbara Museum of Natural History. As a Member benefit, issues provide a look at the Museum's exhibits, collections, research, and events. Santa Barbara Museum of Natural History is a private, non-profit, charitable organization. Our mission is to inspire a thirst for discovery and a passion for the natural world.*

*For information about how to support the Museum, contact Caroline Grange at 805-682-4711 ext. 109 or [cgrange@sbnature2.org](mailto:cgrange@sbnature2.org).*



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Cover photo: Raccoon family in Mammal Hall



## Flying In This Fall: Butterflies Alive!

For more information on *Butterflies Alive!* and upcoming events visit [sbnature.org](http://sbnature.org)



## SAVE THE DATE

- **AstroVaganza**  
SATURDAY, SEPTEMBER 8
- **Members' Appreciation Breakfast**  
SUNDAY, SEPTEMBER 9
- **Docent Open House**  
MONDAY, SEPTEMBER 10
- **Artwalk**  
SATURDAY & SUNDAY  
SEPTEMBER 22 & 23
- **Cocktails with a Curator**  
THURSDAY, OCTOBER 11
- **Folk & Tribal Arts Marketplace**  
FRIDAY-SUNDAY  
NOVEMBER 30-DECEMBER 2