Field Notes

ISSUE 2 VOLUME 2 FEBRUARY 2011

SAN DIEGO NATURAL HISTORY MUSEUM

Pages from the Past

A posse, a trail of blood, and a missing curator! In every issue of *Field Notes*, **Pages from the Past** will feature online content that looks into the archives of the Museum's publications. This edition's online content is an article from *Environment Southwest* that was published in 1986. Follow Frank Stephens on an ill-fated fossil hunt in 1933 that became front-page news.

The Curious Case of the Missing Curator Emeritus

sdnhm.org/fieldnotes

Field Notes is published three times a year by the San Diego Natural History Museum.

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San Diego Natural History Museum Mission:
To interpret the natural world through research, education and exhibits; to promote understanding of the evolution and diversity of southern California and the peninsula of Baja California; and to inspire in all a respect for nature and the environment.

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CURATOR'S CORNER

NOTES FROM THE BIODIVERSITY RESEARCH CENTER OF THE CALIFORNIAS

Entomology/Birds & Mammals

On a field trip to Garnet Queen Mine in the Santa Rosa Mountains for the San Jacinto Centennial Resurvey in October, we encountered amazing concentrations of ladybugs; the example in this photo was just one of dozens like it. The convergent lady beetle, *Hippodamia convergens*, is famous for its large aggregations in California mountains. By aggregating, the ladybugs increase the size and effectiveness of their warning coloration. It's like saying, "You think one of us tastes bad? You should try eating hundreds of us."

Herpetology

With the opening of *Lizards & Snakes: Alive!* (open though April 3), the exhibitions and research staff teamed up to develop an exhibit within the exhibit. What resulted in this collaboration is a fascinating presentation of research specimens from

the Museum's collections displaying all of the lizard and snake species that live in San Diego County. "Having all the lizards and snakes from the county sitting side-by-side is like looking through a biodiversity kaleidoscope," says Dr. Bradford Hollingsworth, Curator of Herpetology and exhibition curator for *Lizards & Snakes: Alive!* On display are both preserved specimens and skulls for each of the county's 57 squamate species, ranging from the smallest (Western Threadsnake) to the largest (Red Diamond Rattlesnake). "I think people are amazed at the comparison in animal architecture and that a snake skull can be so small."

Botany

Dr. Peter Vroom of the Marine Botany Laboratory at the National Oceanic and Atmospheric Administration's Coral Reef Ecosystem Division in Honolulu recently relocated to San Diego and began voluntarily curating the Botany Department's long-neglected seaweed collection.

The Museum possesses many rare and historic algal specimens. The Museum's seaweed holdings combined with the Scripps Institution of Oceanography collection that was donated to the San Diego Herbarium in 1995 contain an amazing array of samples representing early collecting efforts by pioneer botanists in San Diego. Particularly impressive are specimens collected by Daniel Cleveland (the San Diego Herbarium's founder) and Mary Snyder in the 1870s and 1890s. The beautifully preserved seaweeds resemble art prints that would be suitable for framing.

All That Glitters

A CURATOR'S REFLECTIONS

By Elise B. Misiorowski

When I was asked to create a gem and mineral exhibition for the San Diego Natural History Museum, I felt I had been given a great gift, but one that came with "some assembly required."

The development of *All That Glitters: the Splendor and Science of Gems and Minerals* was a personal odyssey of discovery. Every aspect of this process was a learning experience and I had the privilege of working with a highly professional, inventive, proactive, and intelligent staff dedicated to creating a wonderful and rewarding exhibition experience for all visitors. The exhibition's purpose is to revitalize interest in gems and minerals within the community and respond to a general need for a gem and mineral display at the San Diego Natural History Museum.

As California is renowned for its gem and mineral wealth, and San Diego County is one of the richest counties in the state, this message became the essential core of the exhibition. The "splendor" that people respond to irresistibly, and "science" that people find fascinating, helps put our California gems and minerals in context and provides a framework for people to appreciate their importance. The Museum exhibit staff and I had 15 months to plan, design, and install a 5,000-square-foot exhibition. We succeeded, and the Legler Benbough exhibition hall is now filled with amazing crystal specimens, superbly cut and carved gemstones, gorgeous jewelry and wonderful jeweled objects to dazzle the eye and stimulate the intellect.

All That Glitters weaves splendor and science together to create a visually exciting and mentally stimulating experience. Touchable specimens of different kinds are positioned in each gallery. An opal sculpture, a nickel/iron meteorite, a jadeite boulder, a chunk of labradorite feldspar, and a section of a petrified tree trunk are securely mounted on low pedestals and visitors are invited to touch and admire their surface features and raw beauty. Each display case offers something unique and memorable. Children of all ages delight in the discovery of flowers, animals, birds, insects, fish, and reptiles fashioned as jewelry or carved from gem materials. These whimsical creatures bloom, saunter, flutter, swim, and slither throughout the exhibition, providing a connection between the mineral kingdom and the rest of the natural world.

All That Glitters: the Splendor and Science of Gems and Minerals opened at the Museum on May 14, 2010, and remains on view through April 8, 2012. Please join me as I go through the exhibition and share some of the stories, new items, and fascinating elements (no pun intended) that make this exhibition whole.

Gallery I—The Allure of Gems and Minerals

"Flor de Lis:" Upon entering the exhibition, visitors first see an exceptionally large crystal specimen of intense red tourmaline (rubellite) surrounded by colorless quartz and snowy white albite—this is one of the largest crystal specimens found in an enormous pocket discovered in 1978 in the Itatiaia Mining district of Brazil. Named the Jonas Mine for one of the partners in the mining venture, this pocket is famous for producing numerous rubellite tourmaline crystals of unprecedented size and a signature cranberry red color.

The Balboa Park Carousel Egg: A red egg opens to reveal an exact miniature replica of the life-sized carousel that can be found near the entrance to the San Diego Zoo in Balboa Park. Made of enameled gold and silver embellished with diamonds and rubies, this charming egg stands on top of an antique roller

opposite: Black-and-white diamond suite designed by Michelle Ong for Carnet

music box that plays 20 tunes that were popular in 1912. Under the direction of jewelry designer Jim Grahl, this unique object took five jewelers and engineers 10 years to create. A handcrafted key winds the music box, the carousel goes around and the animals go up and down, just like the original. (See page 14 for more about the Carousel Egg.)

Jewelry Past and Present: From antiquity to the present, humans in every culture have adorned themselves with gems and jewelry. Although the materials and methods used to create jewelry have changed through time, the way jewelry is worn has not changed very much. This is clear when you compare jewelry from ancient cultures with jewelry from our generation. Pre-Columbian gold jewels from Central and South America are displayed in contrast with a necklace of emerald, diamond and platinum and aigrette hair ornaments by Cartier and earrings by Van Cleef & Arpels among other notable pieces.

Intarsia Boxes by Nicolai Medvedev: Inlaid with a range of ornamental gem materials such as malachite, lapis lazuli, turquoise and opal, in beautiful geometric patterns, these boxes are amazing examples of the lapidary arts. Notable among them is "The Garden"—a hexagonal shaped box inlaid with rhodochrosite rosettes, lapis lazuli, turquoise and malachite that is 12" in diameter.

The Aurora Diamond Butterfly of Peace: This piece was created as a symbol of the soul and positive transformation by diamond dealer Alan Bronstein. Natural fancy-colored diamonds are so rare that it took 12 years to amass the 240 diamonds, paired for color and size, in this butterfly arrangement. In daylight-equivalent lighting, the diamond butterfly shows hues of yellow, orange, pink, blue, green, and violet. Under long-wave ultraviolet light, many of these diamonds exhibit the phenomenon known as fluorescence.

Birthstones: From ancient times, gemstones have been attributed with protective powers. The concept of birthstones is derived from historic and religious sources. The High Priest's breastplate mentioned in the Old Testament was set with 12 gems. Jewelers in the 19th century designated one gem to each month in the year and this became the basis for the birthstones we are familiar with today. Some months

caption Intarsia Butterfly Box, created by Nicolai Medvedev. Malachite, sugilite, tourmaline, and gold inlaid on a teakwood box.

have alternate gems assigned; tanzanite, for example, has recently been proposed as an alternate to December's turquoise and zircon birthstones. Other cultures have a different series of gems that are used as amulets. The *Navaratna*—nine sacred gems of the Hindu religion—provide power and protection to the wearer.

Diamonds: This case bridges the transition from splendor to science in the exhibition. Their eye-catching sparkle has been a symbol of wealth and power for centuries, making diamonds a perfect illustration of splendor. Exquisite jewels from various time periods blaze with diamonds, irresistibly drawing viewers to the case. A black-and-white diamond suite designed in 2000 by Hong Kong designer Michelle Ong for Carnet is displayed in contrast to a diamond necklace by Boucheron from the late 19th century. Jewelry set with natural fancy-colored diamonds are also featured—at the top of the case is a fancy blue, pear-shaped diamond ring enhanced by pink diamonds while a brown diamond sea turtle swims below.

Gallery II—Elemental Gems and Minerals

Periodic Table of Elements: Viewed scientifically, diamonds are made of pure carbon—a single element, as are all the precious metals: gold, silver, platinum, and copper. All other gemstones are made up of combinations of elements as demonstrated by a colorful interactive display.

synthetic gemstones

Meteorites: Science has shown that all the elements that exist on earth are also found in space. Elements are truly universal! Iron, stony, and pallasite meteorites fill one case while a touchable nickel/iron meteorite with a polished surface clearly shows its beautiful internal structure.

Crystal Forms: Gems and minerals form in six crystal systems: isometric, hexagonal, tetragonal, orthorhombic, monoclinic, and triclinic. Visitors can touch wooden models of the basic forms and compare them with natural gem and mineral crystals in the adjacent display case. Diamond crystallizes in the isometric system and typically takes the form of an octahedron.

Synthetic Gems: Following nature's lead, man has discovered how to grow gems in the laboratory. Examples of synthetic diamond, ruby, emerald, sapphire, spinel, and opal—in their rough form and as cut gems—are on view. These gems were developed primarily for use in technology

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Mary Hollis Clark (November 2, 1921–December 19, 2010)

It is with monumental sadness that the San Diego Natural History Museum honors the life and passing of one of our greatest and most inspirational volunteers, Mary Hollis Clark. Mary passed away peacefully on December 19, 2010. She left us with the same grace with which she lived her life.

Mary received her degree in business administration from the University of Georgia in 1942. She was truly a trailblazer, demonstrating that intelligent and competent women could compete equally.

The family of her late husband Dallas Clark had deep San Diego roots; the couple settled here three years after they were married in 1943 at her family home in Columbus, Georgia while Dallas was a Captain in the Army. Mary followed in her mother-in-law's footsteps in diving into the social and philanthropic life of her adopted community. She and Dallas loved exploring San Diego's backcountry as well as National Parks throughout the west. They shared a passion for horseback riding, gardening, and traveling. She especially enjoyed writing and drawing.

Mary first became involved with the Museum as a member of the Covey volunteer group. In 1964 she was elected to the Board of Directors. Mary served two terms as President of the Board over a twenty-five year span before being elected a Trustee Emeritus. She was the first of only three female board members who have served as President since the beginning of the Society.

With a personal appreciation and genuine curiosity about native plants, birds, and all our local wildlife, Mary maintained an active supporting interest in the research carried out at the Museum from her earliest days. During the 1960s, she played an important personal role in obtaining the Klauber herpetological library for the Museum, by donating funds to create the additional room and shelving.

In 1988, the Mary Hollis Clark Desert Discovery Lab opened to the public, featuring special books, herbarium specimens, and videos, as well as a collection of live desert animals, and artifacts such as animal nests and bones. Mary loved the fact that the Desert Discovery Lab was especially fun and engaging for both children and adult visitors to the Museum.

In 1996, Mary was given the ultimate accolade accorded by biologists, by the naming of a new subspecies of marsh wren, *Cistothorus palustris clarkae*, in her honor. This was announced at a reception to celebrate the establishment of the Biodiversity Research Center of the Californias, as well as the new endowment of the Curator of Botany by Dallas Clark, also in honor of Mary.

A landmark year occurred in 1998, when the Museum and the San Diego Zoo successfully nominated the Clarks for the American Association of Museums Medal for

Distinguished Philanthropy, an award which Mary and Dallas traveled to Los Angeles to receive from the Chair of the AAM's Board of Directors. This annual national award honors "altruism and extraordinary museum patronage," and meant that Mary and Dallas were in the company of other stellar former recipients, such as the Chase Manhattan Bank, James Michener, Henry Luce and Paul Mellon.

Mary never lost faith in the Museum's mission and purpose and she served as a constant reminder of how to handle difficulties that came our way. She also soared with us during our successes. Mary famously stated, at the dedication of the new wing of the Museum in 2001, "Now that we have two wings, we can fly." In 2001, Mary fittingly celebrated her 80th birthday in the new Mary and Dallas Clark Wing during *Monarca: Butterfly Beyond Boundaries*.

Mary's wise counsel helped guide the Museum's President and CEO, Mick Hager, and she became a valued resource for advice on every major decision. Mary regularly attended Museum events—including cheerfully modeling a beautiful sapphire and diamond necklace and earrings that perfectly matched her eyes at last spring's *All That Glitters* gala.

Mary is survived by two daughters, Nita van der Werff of Taos, New Mexico, and Dale Clark of Bend, Oregon; two granddaughters, Tessa and Leigh; and a great-granddaughter, Edith Juniper. Staff members recall how last November, Mary proudly showed off a baby T-shirt from the Museum's store, a gift purchased for her great-granddaughter! Many at the Museum thought of Mary as their "Museum Mother." Her generosity of time, talent, and treasure is unmatched. In the style of another strong female Museum supporter, Ellen Browning Scripps, Mary demonstrated the highest values of volunteerism and philanthropy. She inspired each and every one of us to do our absolute best and made us proud of our work. Our collective hearts are breaking as we look to a future without our beloved Mary Clark. However, as with other people who similarly inspire those around them, the strength of her personality, generosity and integrity never depended on her mere physical presence. Mary is still a living, vital part of the San Diego Natural History Museum, and will continue to be so for all who have known and loved her.

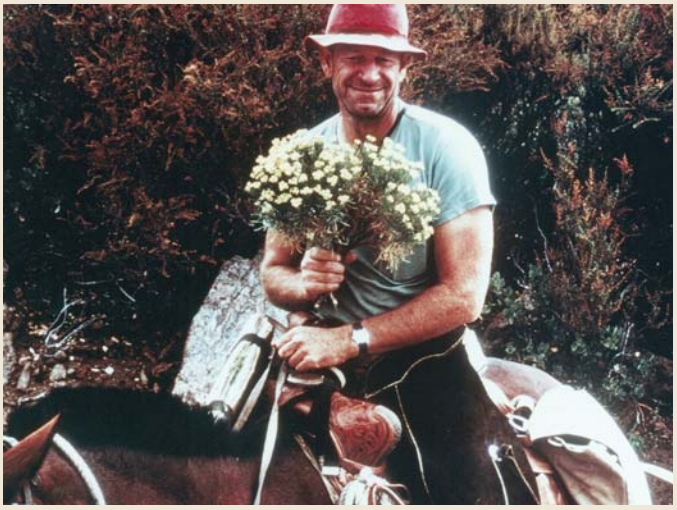
Remembering Reid Moran: Legacy of a Botanist

by Judy Gibson

Reid Moran, who served as Curator of Botany from 1957–1982, died in January 2010 at age 93. He was not only a prominent and respected researcher in his own right, but also established the San Diego Natural History Museum as a leader in the floristics of the Baja California peninsula.

Clark Mahrdt, who worked in the herpetology department in the early 1970s, remembers his "untiring dedication and passion for his work in botany" and that "some evenings I would stay late at the museum and suddenly hear the steel cage security door open and close. It was Reid showing up around 10 PM walking briskly down the hallway to his office. The third floor was quiet then, without interruptions."

Moran was the world authority on the Crassulaceae, a family of succulent plants, and in particular the genus *Dudleya*, subject of his Ph.D. dissertation. He named at least 18 plants new to science—some in that family and some not—and published many papers elucidating relationships within the Crassulaceae. And, as a mark of the respect he earned among his peers, more than a dozen plants have been named for him.



His long and productive career continued long after his official retirement. His *Flora of Guadalupe Island, Mexico* was published in 1996, when he was 80, and his treatment of the Crassulaceae for the *Flora of North America* was submitted a few years later. This appeared in Volume 8 of the FNA, issued only a few months before his death.

Those who knew and traveled with Reid during the last half of the last century remember him as a big, vigorous man, equally ready to climb to the highest peak or to sing to the weary gang around the campfire. According to Dick Schwenkmeyer, who sometimes co-led Museum trips with Reid, he "knew every word of every Australian folk song and would have everyone singing along."

He was famed as an explorer of Baja California, where he followed every dirt track—which in the old days was about all there were—into every remote corner and mountain range. Mules served where trucks could not go. One near-disastrous three-month trek through the mountains of the central peninsula in 1964 resulted in the deaths of several animals: one to a mountain lion, and two to thirst. The people fortunately survived.

Guadalupe Island, a volcanic oceanic island 260 km west of the peninsula of Baja California, was Reid's

lifelong passion and his most visible direct contribution to conservation. His first visit to the island was in April 1948, just before his return to Berkeley to resume his graduate career interrupted by the war. His collecting notes record fourteen visits to the island from that date through 1981, the year before his retirement.

He documented the near-complete destruction of plant life on that island due to the presence of feral goats. In his talks about the island one slide always got a laugh: a photo of his companions roasting a goat on a spit over the campfire, with his wry comment, "We met the enemy...and we ate him." His reporting of the decline of plant life on the island is at least partly responsible for convincing the Mexican government to remove the goats a few years ago. This effort has resulted in remarkable recovery of vegetation including the establishment of the first successful seedlings of the endemic cypresses and pines in over a century.

A botanist's legacy is built not only on the publications he has produced but also on the body of collections he has made. Moran's work in Baja California established our museum as the leading institution (perhaps matched by Rancho Santa Ana Botanic Garden) in the floristics of the peninsula. At present count, some 13.5% of the 200,000 specimens in our herbarium (about 27,000 in all) were collected by him. His focus on the peninsula is demonstrated by the fact that nearly 90% of all the specimens he collected are from Baja California and Baja California Sur. These collections provide a physical record of the identification and distribution of plant species throughout the peninsula.

These specimens, combined with the growing number of contributions of present curator Jon Rebman, provide a continuing resource for taxonomic research and conservation efforts in the peninsula. For example, these collections are currently being consulted by a team of botanists compiling a proposed list of sensitive species for protection under Mexican law. Because of uses like these, Reid's work will continue to benefit the plants and the people of our region.

The Museum's Baja Flora website (bajaflora.org) has additional resources contributed by Reid Moran. His field notebooks have been scanned and indexed and can be read online. Example: the mule trip mentioned in the story begins on page 8135 (volume 8, page 135). Our large collections of photos of plants and places of the peninsula, many of them taken by Moran, can also be searched at that site.

Remembering Benjamin Kiegle

The Museum was surprised and honored to be named as a beneficiary of a generous bequest through the estate of Benjamin Kiegle. A member of the Museum from the mid-1990s until 2001, his bequest came via a retirement fund and also from the sale of his house in Pacific Beach. It goes to show that the Museum makes an impact on the lives of many people—and that some of these people choose to give back through their estates.

Benjamin Kiegle's adage, "Treat People as You Would Like to be Treated," served him well through a long life that included many friendships and chances to share his love for teaching and art. A graduate of La Jolla High School in 1948, an Army veteran, and a teacher since 1956, Ben helped many students develop their artistic nature in a teaching career that spanned 30 years. He was described as a great wit who could spin clever limericks, puns, and jokes—someone we wish we had known better.

Mr. Kiegle preferred to keep his intentions regarding this bequest confidential during his lifetime. At the Museum, we wish we could have thanked him personally and shown him how much his gift would be appreciated. It makes us all stop and think of how much we value the Museum's Live Oaks members and others who come forward to let us know of their intentions in their own estate planning. It lets us demonstrate our gratitude and say that all-important "THANK YOU!" Thank you, Benjamin Kiegle!

Live Oaks Society Membership

The Live Oaks Society honors those who have made bequests or life income gifts to the San Diego Natural History Museum. If you have included the Museum in your estate plans, or when you fund a life income gift such as a charitable gift annuity, naming the Museum as a beneficiary, you may receive significant income and estate tax benefits. In addition, you will become a member of the Live Oaks Society which entitles you to a framed A.R. Valentien print, invitations to exclusive events, and recognition (unless you desire anonymity) in the Annual Report.

For more information contact Donna Raub,
Director of Planned Giving at 619.255.0314
or draub@sdnhm.org.

Natural Partners Spotlight: Bank of America

Probably very few Museum members are aware that Bank of America and the Bank of America Charitable Foundation have partnered with the San Diego Natural History Museum for many years. The Bank supports programs that expand public understanding of the natural world and learning through science. Support has included the Museum's building expansion, the *Sustainable Planet* lecture series, and the Museum Access Fund serving students from Title I schools. In addition, Bank of America was a title sponsor of the hugely successful *Dead Sea Scrolls* exhibition, and has also sponsored the Dos Aguilas Binational Gala.

This year we are honored to recognize Bank of America as a sponsor of the Museum's Environmental Science Education Center. As part of this support, Bank of America Charitable Foundation funds will help provide educational materials to accompany the upcoming exhibitions, *Ends of the Earth: From Polar Bears to Penguins* and *The Horse*.

Bank of America has long been in the forefront of environmental leadership, raising awareness of the importance of the environment as a business concern. In the early 1990s Bank of America adopted its own environmental operations principles and participated in the California Environmental Dialogue. This collaboration of businesses, nonprofits, and government entities strives to balance habitat preservation and quality of life issues for a growing San Diego population.

Your Company Can Make a Difference!

Become a Natural Partner Corporate Member of the San Diego Natural History Museum and support underserved school children through the Museum Access Fund. The Museum Access Fund (MAF) provides financial assistance so that teachers from Title I schools may bring their students to the Museum or book one of the Museum's Docent outreach programs and have California state standards-based science programs brought straight to their classrooms. MAF can also be used to underwrite transportation costs for qualifying schools. To spark a lifelong interest in science in a child today, consider having your company become one of our Natural Partners. For more information, call Shannon Safino at 619.255.0233.

Double Your Giving

Do you work for QUALCOMM, Bank of America, or Caterpillar? These companies and many more will match their employees' and often retirees' charitable contributions to the San Diego Natural History Museum. We encourage you to ask your company for a matching gift form to complete and mail with your donation to the Museum. Contact Eowyn Bates with any questions at ebates@sdnhm.org or 619.255.0172.

The Glitterati Visit Two Carousels

The Museum's Glitterati gathered on a warm November afternoon for events tied to the Balboa Park Carousel as well as to attend a lecture and a reception featuring one of the celebrated elements of the *All That Glitters* exhibition—the jeweled, miniature replica of the carousel. "Secrets of the Egg Revealed" brought together the Museum's Glitterati, invited by Ellen Zinn; the owners of the jeweled Egg, Drs. Barry and Anne Marfleet; and many of the artists working with Jim Grahl, the egg's creator. Thanks to William Steen, owner, guardian, and curator of the famous Balboa Park Carousel, everyone had an enlightening history lesson on this rare and original piece. Proving history lessons can also be fun, the group then shed the robes of adulthood and hopped on the Carousel, all reaching for the coveted "brass ring."

The Charmaine and Maurice Kaplan Theater was the group's next stop, for a fascinating behind-the-scenes look at the fabrication of the Fabergé-style egg, an exact replica of the real Carousel. Three members of the Egg Team spoke on their respective area of expertise and their contribution to the Balboa Park Carousel Egg (its official title, but also known fondly as the Big Red Egg). From the one-of-a-kind music mechanism (Christian Eric), to the magnificent miniature murals (Phil Roberts), to the overall coordination and design (Jim Grahl), the fascinating journey from conception to construction was shared through the remarkable photography of Sylvia Bissonnette. The many individual artists who contributed to the "Egg's" grandeur (most of whom were in attendance) heard their praises sung, as well.

For the finale of the event our group stopped next in the Museum's Legler Benbough Exhibition Hall for a demonstration of the Big Red Egg in action. A fully operational musical automaton—a wondrous and magical achievement—it took 18 years to complete. Our guests stood transfixed before the gently spinning jeweled mechanism, the animals rising and falling in rhythm to the music.

One of the most inspiring moments came when Dr. Marfleet explained his motivation for the project—he wanted this Egg to be available to all the community, not just the elite society who traditionally had been collectors of original Fabergé eggs. Dr. Marfleet's amazing and generous vision for the Balboa Park Carousel Egg—the icon of the *All That Glitters* exhibition—was applauded by the Glitterati and by all the artists and guests who now know so much more about these identical, but differently scaled, carousels.

left to right: Arlene Esgate, Anita Crider, Pam Palisoul, Courtney Coyle, Ellen Zinn, Barbie Spinazzola, Jeanne Larson

continued from page 7

and industry—good examples are the ruby lasers used to read bar codes at the grocery store. These gems are on loan from the Kyocera Corporation.

Gallery III—California Gems and Minerals

California Tourmaline: The geology of San Diego County includes the occurrence of many pegmatite pockets, a rock formation that often contains gemstones. Beginning in the mid-19th century, mines in Fallbrook and Pala produced an amazing array of tourmaline. This case features crystal specimens from the King Mine, the Queen Mine, the Pala Chief, the Stewart Mine, the Himalaya Mine and the Cryogenie Mine—all from the collection of William Larson and his family.

Pegmatite Gem Pocket: One of the most exciting features in *All That Glitters* is the pegmatite pocket recreation. Visitors duck under the rock overhang to view a recreated pegmatite pocket filled with glistening gems! Peter Bancroft, noted local mineralogist, fabricated the pocket in the 1970s with the help of Josephine Scripps (during the time she was mineral curator for the San Diego Natural History Museum). Adjacent to this feature is a short video featuring a visit to a local tourmaline mine.

California Gold: The gold rush of the mid-19th century put California on the map. The gold mines of California produced spectacular gold crystal specimens—all naturally formed. Examples of crystallized gold are on display along with big nuggets—formed from the erosion of gold-bearing mountains. Gold coins and nugget jewelry show how our culture immediately put this wealth to use.

Benitoite: Our State Gem is appropriately one that is found only in California—benitoite is a little-known gem material that was discovered in 1906 in San Benito County. The triangularly shaped, tabular crystals are shallow, meaning that cut gems are typically small—faceted benitoites larger than one carat are rare. *All That Glitters* proudly presents crystal specimens, including one from the Josephine Scripps collection, several faceted gems between one carat and four carats, and a butterfly brooch set with benitoites in a range of color and size.

More California Gems and Minerals: In addition to tourmaline, benitoite, and gold, California produces several other beautiful gems and decorative minerals including kunzite (pink spodumene), spessartine (orange garnet), morganite (pink beryl), amethyst (purple), and rock crystal (colorless) quartz, topaz, and jadeite. Another butterfly brooch—this one of spessartine garnet in enameled gold—spreads its beautiful wings among the colorful crystals and sparkling cut gems. On a pedestal nearby, a boulder of jadeite from the Monterey Coast beckons visitors to stroke its cool smooth surface.

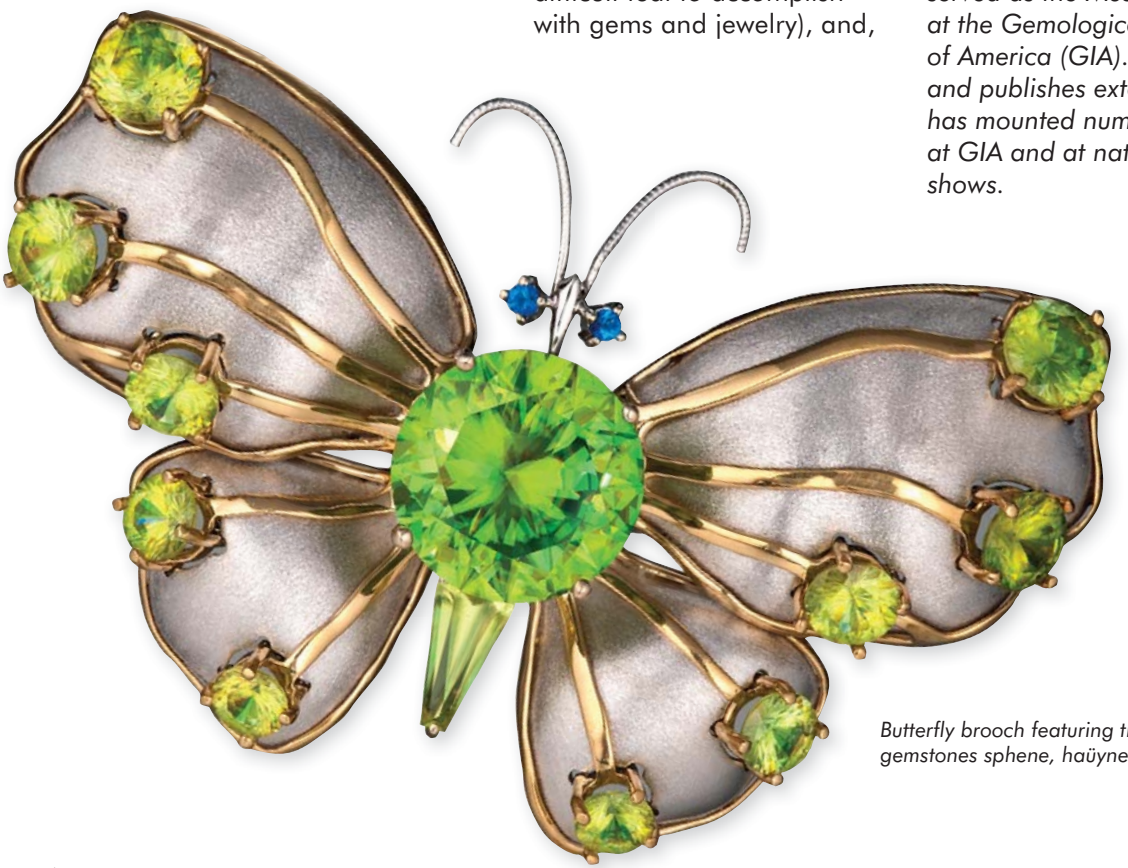
Gallery IV—Gems Around the World

Organics: Not all gems grow as minerals. Pearl, shell, coral, ivory, tortoiseshell, jet, and amber all have organic origins—they come from plants, animals, and sea creatures both living and extinct. The demand for some organic materials—notably ivory, coral and tortoiseshell—has led to the animal's endangerment. This case also features jewelry made of mammoth and fossilized walrus ivory. Children will be charmed to find an ivory elephant carving, a jet-bead snake bracelet, a cricket encased in a piece of amber, and a butterfly set with pearls from Baja California.

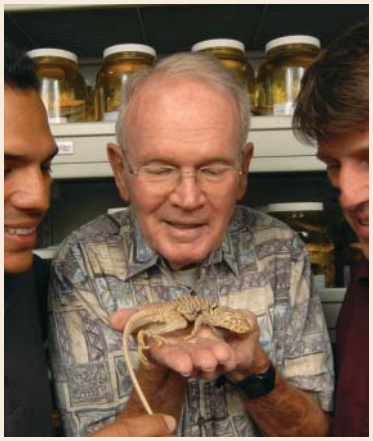
More Gem Cases: Eight additional gem cases display

a smorgasbord of gems, as crystals, carvings and jewels—ruby, emerald, sapphire, topaz, garnet, peridot, opal, jade, moonstone, and more provide a colorful feast for the eyes and food for the soul. Sprinkled throughout the cases are more creatures to find: a Mauboussin opal jellyfish brooch, two starfish brooches set with ruby, sapphire and diamond by Jean Schlumberger for Tiffany & Co., carved jade Fu Dogs, and more butterflies set with extremely rare gems—stibiotantalite, apatite, and scapolite—make the treasure hunt delightful and surprising. The response to *All That Glitters* has been unilaterally positive. The exhibition appeals to viewers of all ages and all levels of interest in gems and minerals. Visitor responses show that the scale of the exhibit is right—viewers aren't overwhelmed, the text is enough information to absorb, the lighting makes the objects glow and display their true colors (a very difficult feat to accomplish with gems and jewelry), and, most importantly, every visitor learns something new. Best of all, many visitors reveal that they have returned numerous times, bringing friends and family to see and experience *All That Glitters*—an indisputable indicator of a successful exhibition.

Elise B. Misiorowski, Graduate Gemologist (GG) and an internationally respected jewelry historian, is the curator of All That Glitters: The Splendor and Science of Gems and Minerals. *She previously served as the Museum Director at the Gemological Institute of America (GIA). She lectures and publishes extensively and has mounted numerous exhibits at GIA and at national trade shows.*



Butterfly brooch featuring the unusual gemstones sphene, haüyne, and cassiterite



Dick Schwenkmeyer Receives Friends of Balboa Park Millennium Award

Dick Schwenkmeyer, longtime Museum supporter and volunteer, was awarded the Friends of Balboa Park Millennium Award on October 26, 2010. This annual award is given to volunteers who have made significant contributions to Balboa Park and its institutions. Dick Schwenkmeyer first became involved with the San Diego Natural History Museum in his early teens as a member of "The Specialists Club," created by Charles Harbison, then Curator of Entomology. He began his volunteer work with the Museum after retirement and is currently a Department Associate (volunteer) with the Herpetology Department and a volunteer parabotanist with the Museum's San Diego County Plant Atlas. In Herpetology, he is part of a team of volunteers working on a three-year re-tagging project. He spends one day a week removing specimens from the jars in which they are housed and tying new tags onto each one. He has also contributed at least 450 of the 75,000 specimens contained in the herpetology collection. As a parabotanist for the past five years, collecting plant specimens for the Museum's San Diego County Plant Atlas, Dick continues to do the things he loves—exploring the canyons and byways of the county and helping the Museum with important research about the diversity of plant life in the region.

Museum Whalers

The Museum Whalers, a group formed in 2005 to provide naturalist interpretation aboard whale-watching cruises, graduated a class of 23 new whalers this season. The Museum Whalers reach over 25,000 people on the Hornblower Cruises and Events whale-watching cruises from mid-December through April. This past year, blue-whale watching cruises were added in partnership with H&M Landing. Starting in December 2010, through that same partnership, the Whalers are naturalists on board nature cruises to Los Coronados Islands. Through these partnerships, the San Diego Natural History Museum provides year-round whale-watching. Learn more at www.sdnhm.org.

Volunteers: Save the Date!

The annual volunteer appreciation dinner will be held on April 14, 2011. The celebration will be held at the San Diego Natural History Museum and will include the popular "Staff Centerpiece Competition." There will be tough competition this year, as the different departments try to unseat the two-time centerpiece winner, Entomology.

Museum Whalers

Sustainable Planet: Children and Nature Lecture series

A Good Place to Grow Up is Green
March 8, 2011; 6:30–8 PM
Louise Chalwa, University of Colorado

Smart by Nature: Schooling for Sustainability
Lisa Bennett, Center for Ecoliteracy
May 3, 2011; 6:30–8 PM

Lectures are $5 per person. To register, visit www.sdnhm.org or call 619.255.0210

Wahoo! Have You Met Ms. Frizzle?

As far as scientists go, Ms. Frizzle is one of the busiest! This summer she was spotted running imagination-powered field trips in San Diego County libraries, conducting experiments in the Museum's summer camps, and testing theories every Sunday at the Museum. The conclusion drawn from all this hard, scientific research: kids love science almost as much as Ms. Frizzle loves kids!

Even though summer has long since passed, Ms. Frizzle shows no signs of letting cold weather slow her down. Currently, you can visit Ms. Frizzle and take part in her important scientific explorations every Sunday at the Museum. Favorite Ms. Frizzle investigations include: How do paleontologists know what dinosaurs looked like? Do caterpillars become butterflies? and Why are bats mammals?

You can see Ms. Frizzle Sundays in the Museum at 12:15 PM and 2:15 PM! Can't make it to us? No problem, Ms. Frizzle loves taking her Magic School Bus on the road; call 619.255.0210 for more information.

San Diego Natural History Museum Hosts Family Days

With each new exhibition that travels to the Museum, the Education Department plans at least one Family Day that celebrates and promotes that exhibition with family-focused activities. It's an opportunity for families with young children to spend the day together and learn about natural history through play and exploration. Children get a chance to make crafts, play games, and see a special performance.

Join us for Science Family Day on Saturday, March 19, and delve into the life sciences to discover the field of herpetology. Discover the snakes and lizards of San Diego County, discover what it is like to be a squamate, and visit these critters, large and small in our exhibition *Lizards and Snakes: Alive*! Partake in

activities that showcase the remarkable adaption of lizards and snakes, experience the energy it takes to shed your own skin, catch food with a 12-inch tongue, and talk with the experts.

Stay tuned for more information about Family Days to celebrate the exhibition *Ends of the Earth: From Polar Bears to Penguins*.

Family Days are always free for Museum members! For nonmembers, the activities are free with paid admission.

Summer Camp at the Museum

Where can you dig for dinosaurs, touch cold-blooded critters, study insects like an entomologist, and uncover animal mysteries like a detective? At the San Diego Natural History Museum's summer camps!

For 11 weeks in 2010, spanning mid-June through August, the Museum was alive with the energy of young minds and hearts eager to discover and explore our natural world. More than 600 children, ages 4–11, participated in summer camps such as "Fossil Finders," "Let's Get Buggy," and "Remarkable Reptiles."

Parents and children were able to choose from 12 different camps. Each camp explored one (or several!) of the fields of study in the Museum's Biodiversity Research Center of the Californias—Birds and Mammals, Entomology, Herpetology, and Paleontology. Summer 2010 included some new and exciting additions such as the Museum Monitor, a camp newsletter full of pictures and news of the week's events. Also, campers enjoyed each Friday's "Celebrity Scientist Assembly" in which all camps would gather for a special presentation by a Museum scientist. At these assemblies, campers had the opportunity to meet and ask questions of our scientists and to get up-close and personal with spiders, lizards, and fossils! Some campers were even lucky enough to go on an impromptu tour of the entomology and herpetology collections given by their respective curators.

The Education Department has been working hard on Summer Camp 2011 since last year's camps ended! Camp registration is available online starting March 1: www.sdnhm.org/education/camps.html.

San Diego Natural History Museum
P.O. Box 121390
San Diego, CA 92112-1390

Ends of the Earth:
From Polar Bears to Penguins
A Special Exhibition

May 14, 2011–April 15, 2012

Travel from one end of our globe to the other to explore the fascinating (and cold!) worlds of the Arctic and Antarctic. Discover the unique nature of the Earth's polar regions, the current science being undertaken there, and how these regions are indicators of climate change on our planet.

Supporting Sponsor QUARK EXPEDITIONS

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