To give the Sonoran Desert a voice, the Museum’s founders created something unique, compelling and visionary. Early exhibits such as Water Street, the Demonstration Garden, the Steven Congdon Earth Sciences Center, as well as later projects like the Hummingbird Aviary, Desert Grassland, the Desert Loop Trail and Life on the Rocks, underscore how different this oasis in the desert is from a traditional zoo or garden.

Those of us who have followed in their footsteps have endeavored to stay true to their founding vision, but changing times often demand a different approach. Expectations have changed relative to aesthetics, animal welfare and engagement, as has our understanding of how to move people to action. To reach our audiences and stay relevant the Desert Museum must continually evolve. This doesn’t mean deviating from our mission; instead, it suggests finding contemporary ways to do what we have always done. With this in mind, let’s explore how this informs the way we approach new exhibits.

...continued on next page
Return of the Birds
Winged Wonders of the Southwest

Birds are a significant component of Sonoran Desert fauna and the Museum has several traditional aviaries, ranging from the large and serene walk-in (mixed species) aviary, to the cienega that features wading birds, the one-of-a-kind and ever popular hummingbird aviary, and the small exhibit that houses the burrowing owls.

Years ago the Museum had more species of birds on display in a set of small enclosures called the Bird Circulars. The enclosures were small by today’s standards and eventually began to deteriorate, both of which led to their disassembly and removal. When this occurred, many iconic birds, including vultures and owls, were no longer on exhibit. A plan was set in motion to replace these exhibits, but rather than create another central complex for birds, we made the decision to create multiple aviaries in different locations, immersed in the habitats where you would typically encounter these species.

This year, the first of these new aviaries will be built in the Desert Grasslands exhibit, which will house carrion eaters – vultures and (eventually) caracara. At the same time the adjacent burrowing owl enclosure will be renovated to increase its size and to improve its function and aesthetics. Both exhibits will feature state-of-the-art aviary mesh, with non-traditional support structures, and entirely new, fun, and engaging graphics and interpretation.

These aviaries have been fully funded by private donations and are scheduled to open toward the end of 2015.

Hidden in the Midden
Alice in Wonderland Meets the Packrat

Have you ever wondered what it would be like to be a packrat and live in a house made of sticks, cholla, and trash? Wonder no more, because the Desert Museum will be creating a human-sized packrat den (where one finds a midden) that will give children of all ages an insider’s perspective of one of nature’s original archivists. Hidden in the Midden will explore the world of the little-loved packrat (White-throated woodrat), including its friends, enemies, parasites and predators, all of whom will be presented as if we are the size of a packrat. Visitors will come face-to-face with (and climb through) a 75’ long Western diamond-backed rattlesnake, and encounter giant kissing bugs, spiders, and scorpions (all models of course!), in an engaging indoor learning space sure to enthrall and enlighten those brave enough to enter. At the same time, visitors will learn what packrats do for a living (aside from chomping on the wiring of your car!), how this little collector’s way of life has helped inform us about the history of the Sonoran Desert, and how they may be cataloguing our existence for others to review centuries from now.

The Midden project is in design and will be funded by private donations. The $1 million goal for this exhibit will be met in 2016 and the exhibit will open in 2017.

Coast to Canyons
Journey of the Jaguar

Coast to Canyons is an exhibit comprised of multiple living vignettes that follow a jaguar’s journey through southern Sonora, Mexico. The exhibit originates at the water’s edge, travels through mangrove swamp, thorn-scrub, tropical dry forest, and culminates in the mountains. The experience encompasses 1.5 acres and will include dozens of species of plants and animals, each playing a role in telling the story of unique but interconnected biotic communities.

Upon entering the exhibit, you will be in an air-conditioned venue displaying various marine organisms, some of which can be touched or fed. You will also encounter perhaps the biggest surprise of all – an American crocodile! Are you wondering what it’s doing here? As recently as 150 years ago, American crocodiles occurred along the western edge of Sonora and they are still found along the coast of Sinaloa (just south of our region) today. These reptiles are large and scary but they’re also highly intelligent, great parents, and an endangered species.

As you leave the building you’ll have another opportunity to see this magnificent reptile and, if you’re there at the right time, you can see this animal being fed, trained, or interpreted by a keeper.

Your next stop in this exciting exhibit will take you to the domain of Mexican gray wolves just down the trail. The Museum has a long history with this species and has served an important role in its conservation and reintroduction to the wild. Until now, though, we haven’t been able to consider a bigger exhibit for this largest of Sonoran Desert canids. With Coast to Canyons, we will be able to relocate our wolves from their current home in the Mountain Woodland area, greatly increase their living space and the level of interpretation for this endangered species.
Next up will be the magpie jays. Large and beautiful with extremely long tail feathers, decked out in blue, black and white, these intelligent birds haven’t been seen at the Museum in many years. Coast to Canyons will bring these majestic animals back in an indigenous habitat. Adjacent to these birds will be several other species of reptiles, amphibians, and invertebrates, including Tarahumara frogs, Giant leaf-frogs, and the Mexican beaded lizard — the much larger cousin of the Gila monster. These animals will be presented in another climate-controlled building, designed with extra space to host small events.

Lastly, you will encounter the jaguar, another iconic Sonoran Desert species that has been absent from the Museum for decades. You will be able to see this magnificent cat in its enclosure from multiple vantage points, including shaded areas designed for group presentations and viewable training experiences.

In and around these enclosures will be a variety of plant species — critical aspects of the story and incredibly important components that create the proper context for the wildlife — along with stories of the people who live there, and the geology of the land. Coast to Canyons will also feature themed activity and play areas for children and an expanded gift shop featuring merchandise specifically related to the exhibit.

Without question, this will be the most complex exhibit initiative the Desert Museum has ever undertaken. It will also be the most expensive. To turn this dream into reality requires huge investments of time and money. The Museum has raised private funds for the exhibit, but much more is needed and this is why Coast to Canyons is featured in the upcoming Pima County Bond, which will take place on November 3, 2015. You’ll find it, along with many other wonderful projects, in seven ballot questions (that we strongly encourage residents of Pima County to learn about). Our project is featured in proposition #427, under the heading, “Tourism Promotion.” Why there? In addition to being a premiere natural history institution, the Desert Museum is also Tucson’s #1 attraction. Every year, thousands of visitors come to Tucson because of the Desert Museum. This exhibit complex will dramatically increase the number of exhibits at the museum and give visitors new reasons to come to the Museum, and another reason to stay longer, which positively impacts tourism spending.

Hopefully, this overview provides a sense of where the Museum is headed in the near future; greater focus on animal welfare, interaction and fun, while making conservation work more apparent, all of which is more likely to result in visitors who are informed and engaged in the mission of the Desert Museum.
As Desert Museum members, you’ve heard about the benefits of “living in harmony with nature” each time you’ve visited or read one of our publications. Even for the most ardent nature-lovers, however, the packrat, or more properly the White-throated wood rat, gnaws at the edges of tolerance for living with nature. Living in packrat territory can be a very expensive proposition, as they seem to have a liking for outdoor equipment, like cars and A/C units. Maintaining a den-free zone around your house will minimize damage and help you appreciate these animals for their fascinating and even helpful roles in the environment.

Rats and mice have adapted to a wide variety of environments and are one of the most successful mammal groups on Earth. These small rodents are at the bottom of the vertebrate food chain, providing sustenance for everything from coyotes and bobcats, to owls, and Western Diamond-backed rattlesnakes. The large eyes of the packrat help this nocturnal animal see its way around at night and its large ears aid in hearing. Like all rodents, packrats need to gnaw to keep their ever-growing teeth trimmed. A layer of hard enamel covers the front surface of the teeth. The rest of the tooth is softer and wears down faster than the enamel as the rodent gnaws, thus creating a chisel-like shape to the front teeth. This unique tooth shape, and their need to gnaw, leads to some of the behaviors we find destructive.

Packrats are famous for collecting sticks, cactus parts, animal dung and other debris (including any small items you might leave outside) to create their houses or dens. These houses can be up to 3 feet (1m) high and 8 feet (2.4m) across and are usually tucked under vegetation or between boulders. The house acts as insulation for the nest, which is inside, close to the ground. The house also includes “rooms” for food storage. The spiny cactus parts are thought to offer protection from predators digging up the nest and multiple access holes allow the packrat a quick escape. Although their nests can get to be quite large, it is generally occupied by only one packrat, unless it is a mother with young. Other animals often take up residence in the nest as well, especially snakes and kissing bugs.

Somewhere near their den, packrats will create a “midden.” Midden is a term from archaeology meaning “garbage pile.” The midden will contain fecal pellets, plant parts, rocks, insects, lizard scales and other bits and pieces of desert. It is cemented together by crystallized packrat urine, which preserves the contents of the midden as long as it’s protected from the rain. Packrat middens have been found that are over 50,000 years old! These middens have yielded a wealth of knowledge about the past vegetation and climate of this region, using methods pioneered by scientists at the Desert Museum, University of Arizona, and US Geological Survey.

As interesting and important as packrats are to science and to ecological balance, it is reasonable to remove the dens that are near your home, and there are professionals that can help you do this. Do not use poison baits as they are not effective and do more harm to other animals, including predators of packrats. The packrat is one neighbor that may be better appreciated from a distance, unless, of course, you want to climb inside the giant packrat den in the future “Hidden in the Midden” exhibit!
Perfect Pruning  
**November 8**  
Learn how trees grow, how they heal, tree anatomy, when to prune, how much if any to take off, tool maintenance and more. **$40**

Birds, Bats, Bees & Butterflies  
**November 8**  
Learn about these Sonoran Desert Pollinators with an emphasize on insects, especially bees, as they are by far the most diverse and ecologically important pollinators. **$40**

Cats & Dogs  
**November 21**  
Jaguars, Mexican gray wolves, ocelots, coyotes and more! Learn about these carnivores - their preferred habitats, foods and interactions, and how to recognize their signs. **$40**

Getting to Know Birds  
**November 21**  
They are light, fast, and can navigate and migrate thousands of miles. How do birds do that? Find out as we explore their lifestyles and habitats, and present you with a few of our local birds face-to-face. **$40**

Desert Yoga & Wellness  
**January 16**  
Treat your mind and body to a morning of stretching in the desert. Includes tea and contemplation time. **$40**

TRIPS

New Mexico’s Rio Grande Pueblos & Georgia O’Keeffe Country  
**November 7 – 13**  
Northern New Mexico—land of enduring cultures and cultures of enduring art. Join author, anthropologist, and Indian Trader Mark Bahti to savor scenic pueblos, museums, arts, and artists. Small group with deluxe accommodations in Santa Fe. **$2995**

Land of the Hopi and Navajo  
**April 23-29, 2016**  
Explore the stark sandstone geology and the ancient cultures of Arizona’s Colorado Plateau. Visit the Hopi Mesas and the homes of Kachina artisans, and walk a Hopi corn field. Visit the Hubbell Trading Post and Petrified Forest. Enjoy a sunrise breakfast in Monument Valley, two nights in Canyon de Chelly, and one in Winslow’s grand railroad hotel La Posada. **$1660**

Missions and Wineries of California  
**September/October 2016**  
Discover the legacy of the Franciscan Friars, as well as California’s coastline and oak-studded inland hill country. Spend the night in the friary of Mission San Antonio. **Price $1660**

*For details and registration on these trips call Baja’s Frontier Tours at 520/887-2340; www.bajasfrontiertours.com

Registration Information:  
Call 520/883-3086 or log onto desertmuseum.org/adultclasses  
Prices are 10% more for non-members.
MEMBERS' HOLIDAY GIFT SHOP DISCOUNT
November 26 – December 24
Enjoy a 10% members’ discount in all the Museum gift shops from Thanksgiving Day through Christmas Eve.

NEW BIRD EXHIBIT DEBUTS IN DECEMBER: VULTURE CULTURE!
Vulture Culture, the Desert Museum’s newest exhibit, will be home to two Turkey Vultures and a Black Vulture. The new exhibit incorporates a host of interactive activities such as exploring the vultures’ impressive wingspan and other amazing natural history facts. The visually appealing displays will offer great photo opportunities for guests. Check the ASDM website and social media for more information and updates.

EXHIBIT
MEASURING the FATE of the AMAZON through October 25, 2015
Ironwood Gallery
Solo Photographic Exhibition by Jake Bryant, UK. In partnership with the University of Arizona.

EXHIBIT
Andrew Denman: The Modern Wild
October 31 – January 3, 2016
Monday – Friday 9am – 4pm
Opening Reception,
Saturday, October 31, 3-5pm
Ironwood Gallery
Andrew Denman: The Modern Wild is the first ever solo museum exhibition of the artist’s work. Thirty-five original paintings as well as preparatory studies, drawings, and photographs, will showcase Denman’s artistic evolution and art-making process.

BREAKFAST WITH THE DIRECTOR
Saturday, November 7, 9:30am
Baldwin Education Building - by invitation.
Join Director of Philanthropy, Cree Zischke for breakfast before attending the Annual Members’ Meeting. Meet the Museum’s Trustees and Senior Staff and get to know the people who are stewarding the Museum today.

ANNUAL MEMBERS’ MEETING
Saturday, November 7, 10:30am
Warden Oasis Theater
Please join us for the Annual Members’ Meeting featuring an interactive discussion with Chuck Huckleberry, Pima County Administrator and Carolyn Campbell, Executive Director of the Coalition for Sonoran Desert Protection. Topics will include the impact of the November bond election, Tucson’s current economic strengths and how the Desert Museum plays a role in Tucson’s tourism industry; and the intersection of economic development and conservation. Learn about the Museum’s plans for the future and participate in a Q&A.

MEMBERS' PREVIEW OF RAPTOR FREE FLIGHT
Friday, October 16, 2015 10am
Arizona Uplands
Come meet the birds of the RFF and enjoy an insider’s look kick-starting the 2014 – 2015 season!

RAPTOR FREE FLIGHT DEMONSTRATIONS:
THE SEASON BEGINS
Saturday, October 17, 2015 –
Sunday, March 27, 2016
10am and 2pm daily
Desert Loop Trail
Morning and afternoon demonstrations will feature hawks, owls, falcons and ravens. Afternoon demonstrations will also showcase an iconic family of Harris’ hawks. Step into the world of raptors and join us as birds fly overhead displaying their natural abilities as winged masters of the sky.

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MAJOR GIFTS
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Ms. Janice L. Foiles
Mr. and Mrs. George R. Schermerhorn

In memory of Daniel Austin
Mr. and Mrs. Edward V. Conroy

In memory of Mr. Everett Brown
Ms. Martha Brown

In memory of Mrs. Lula Mae Criley
Ms. Carol M. Cochran

In memory of Geraldine E. Dennison
Ms. Barbara Fransway

In memory of Mrs. Barbara P. Engelhardt
Ms. Cynthia Altus
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Ms. Jennifer Griffin
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Ms. MaryAnn Pontari
Mr. Yitzhak Sharon

In memory of Mr. Lyle E. Frohberg
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Mr. and Mrs. Roger Kellison
Mr. and Mrs. Lawrence W. Ring
Mr. Alan Robertson and Ms. Sally Clarke
Mr. and Mrs. Donald L. Thompson

In memory of Monique Giannetta
Ms. Sarah Rose

In memory of Mr. Frank Keller
Ms. Doris Nyhus

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Mr. Roger Rund
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Mr. Kenneth J. Prchal

In memory of Mr. Joseph Prelesnik
Mr. and Mrs. Robert B. Johnson

In memory of Betty Shaff
Ms. Ardelle Ohman

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In memory of Bonnie Tate
Mr. and Mrs. Dean S. Lucal

In memory of Helen E. Yeast
Mr. and Mrs. George Huseman

In memory of Ms. Lauray Yule
Ms. Anna M. Domintrovic

HONORARIUM GIFTS
In honor of Mr. Robert J. Edison and Mr. John E. Jarvise
Ms. Kerstin Block
Ms. Rebecca Block and Mr. Tim Haskin

In honor of Ms. Anna Larson
Ms. Kate Larson

In honor of Ms. Shannan K. Marty and Mr. Christopher Pendleton
Mr. and Mrs. Christopher Mathis

In honor of Dr. and Mrs. William F. Wallace
Mr. and Mrs. Robert Maxfield

In honor of Mr. Dan Weisz
Ms. Samantha Krug

For information about supporting the Museum with your gift or bequest in honor of a loved one, please contact Cree Zischke at 520.883.3039 or Camille Pons at 520.883.3055.
MEMBERS - Give the Gift of Year-long Fun!

A gift membership provides 365 days of free access to the Museum's animals and gardens, loads of activities, and members-only adventures. Call the Membership office at 520.883.3054 or log on to www.desertmuseum.org to sign up family, friends, clients, and neighbors. They will be thanking you all year long!