

2014 ANNUAL REPORT



Sam Noble Museum

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2014 ANNUAL REPORT

FROM THE DIRECTOR

2014 was a very important one in the life of the Sam Noble Museum. In the 20th anniversary year of the National Medal for Museum and Library Service, the Sam Noble was recognized by the Institute of Museum and Library Services (IMLS) as one of only five museums honored with a medal (five libraries were also selected). This is the nation's highest honor for libraries and museums. It celebrates institutions that make a difference for individuals, families, and communities. I was privileged to attend the award ceremony at the White House in May to receive the medal from Mrs. Michelle Obama, who spoke about the museum's innovative educational programs. The entire museum was proud to be the first organization in Oklahoma to receive this prestigious award.

The museum was reaccredited by the American Alliance of Museums (AAM) in 2014, its fourth successful continuous accreditation. Accreditation is awarded to fewer than 10% of America's museums and recognizes that a museum meets national standards and best

practices of operation, management, educational programming, collections preservation, research, and service to the public. As the accreditation committee noted: "Overall, the Visiting Committee found the Sam Noble Museum an outstanding museum."

Educating the public through exhibitions and programs that increase scientific literacy for all ages is part of our mission and a mandate from the State of Oklahoma. Two very special exhibits were developed by curators and staff in 2014, *George M. Sutton: Exploring Art and Science* and *Formed in Stone: The Natural Beauty of Fossils* and the museum hosted three traveling exhibits. Education programs attracted many participants, with 5,073 visitors during Spring Break Escape. The 12th annual Oklahoma Native



American Youth Language Fair had a record 2,333 participants during the two-day event.

School field trips brought 18,136 students, teachers and adult chaperones to classes in the museum and exhibits and over 51,500 visited the Discovery Room. More than 200 volunteers donated 22,500 hours of their time in our exhibits, collections and labs. ExplorOlogy® continued to provide young people with life-changing experiences in the field with scientists and educators showing the role that science can play in their future.


Each year our curators teach hundreds of undergraduates and graduate students at the University of Oklahoma about the fascinating disciplines included within the purview of a major natural history museum, everything from genetics to geology, from languages to archeology. Students are provided unique opportunities to learn and study thanks to our enormous and valuable collections. More than 55 research papers were published last year, including several on new species discoveries in fossil vertebrates, trilobites, reptiles

and amphibians. A new basal horned dinosaur — the 3-pound *Aquilops americanus* — discovered by Dr. Rich Cifelli's team during a 1997 expedition in Montana went on display near our giant *Pentaceratops* and has been a media star.

The Sam Noble Museum is truly a source of Oklahoma pride. Grounded in scholarship and the stewardship of the tangible heritage of Oklahoma, the museum is an iconic part of the university and the state. We are a leading facility for the preservation and study of millions of objects and specimens that belong to the people of Oklahoma and we are committed to cutting edge research that connects science, nature and culture to people's lives. This is what the Sam Noble Museum has done for more than 115 years.



Dr. Michael A. Mares, Director



The Sam Noble Museum
is one of only **1,005**
ACCREDITED
MUSEUMS
in the nation.

EXHIBITS

George M. Sutton Exploring Art & Science

January 18–
April 20



A Continuing Legacy



Temporary Exhibits

Fred E. and Enid Brown Gallery

George M. Sutton: Exploring Art and Science opened in January supplemented with 75 watercolor paintings from the museum's collection. Sutton, an acclaimed artist, writer, explorer and teacher, came to Norman, Okla., in 1952. His passionate interest in ornithology led him on expeditions around the U.S., the Arctic, Mexico and South America. This special in-house exhibit highlighted Sutton's art from these expeditions as well as personal items from his life.

Hungry Planet: What the World Eats opened visitors' eyes to what families eat around the world. On display throughout the summer, the exhibit included large color photographs of 10 families photographed in their kitchens with one week's worth of food. The exhibit was unique, thought-provoking and educational.



The Ayme family of Ecuador is the subject of a photograph by Peter Menzel, featured in the Hungry Planet exhibit.



| *Bom Bom was on exhibit during Rare*

National Geographic's *RARE: Portraits of America's Endangered Species* based on photographer Joel Sartore's book by the same title went on display in September. Photographs of well-known endangered species like the bald eagle and sea turtle were showcased alongside more unfamiliar species like the Higgins eye muscle. Specimens from several of the museum's collections including mammalogy and ornithology were included in the exhibit to educate visitors about the role museums play in research and conservation of various species.

Also on display with *RARE* was Bom Bom, a western lowland gorilla from the Oklahoma City Zoo, with signage beside his case to help inform visitors of his purpose, legacy and relevance in preserving biodiversity.

Dorothy C. Higginbotham Gallery:

In February *Ramp It Up!* went on display. Developed by the Smithsonian Institution Traveling Exhibition Service



Skateboards fill the wall during the Ramp It Up: Skateboard Culture in Native America exhibit.



Your museum plays an important role in the preservation of many threatened species.

The *Rare* exhibit was supplemented with **20 SPECIMENS** of rare and endangered species from the museum's collections.



Oklahomacystis tribrachiatus, a
Paracrinoidea from the Ordovician Period
on display during Formed in Stone.

with the National Museum of the American Indian, the exhibit celebrated the history of the American Indian skateboarding culture. It focused on how indigenous people and tribal communities use skateboarding to express themselves and educate their youth.

Immense black and white digital photographs featuring an array of geometric designs on fossils dating from 80 to 455 million years old was the basis of Formed in Stone: The Natural Beauty of Fossils. On display from July through the end of 2014, this in-house exhibit developed by the invertebrate paleontology department revealed the hidden surfaces of 12 fossilized microorganisms, eight of which were from Oklahoma. Home to more than 1 million specimens from across the globe, the invertebrate paleontology collection represents the combined efforts of paleontologists from the Oklahoma Geological Survey and the University of Oklahoma School of Geology and Geophysics.



Actual fossils on display during Formed in Stone. These tiny specimens were dwarfed by their photographic counterparts which measured 66 x 44 inches.

EDUCATION

ExplorOlogy® students collect specimens in the field

Collaboration

In 2014, the Sam Noble Museum continued to collaborate with schools across the state to advance the role of science and extend the impact of the museum's educational programs, workshops and events to students throughout Oklahoma.

The museum offered a variety of education programs, designed for lifelong learners to explore natural history through workshops, field trips and lectures. In 2014, the museum reached 96 participants in adult programming and 247 Oklahoma teachers through workshops.

Opportunities for out-of-school science exploration are not widely available in all areas of Oklahoma or in communities whose teachers and students are working with few resources. The Whitten-Newman ExplorOlogy® Program, a series of informal science education programs that partners participants with

actual scientists to conduct investigation, was created by the Sam Noble Museum at the University of Oklahoma to encourage Oklahomans of all ages, locations and backgrounds to "do science." This year, ExplorOlogy® educators facilitated programming for 5,255 participants.



Public Program Participation

1,594 YOUTH

96 ADULTS

136 FAMILY

240

*Oklahoma Science
Adventure participants*

56

Science Escape participants
3 sessions

308

Paleo Expedition participants

2,378

ExplorOlogy[®] In Motion participants
72 sessions



SCHOOL PROGRAMS

18,136

Field trips

8,845

Museum events

Spring Break Escape
Sooner Museum Quest

5,779

Education class participants

247

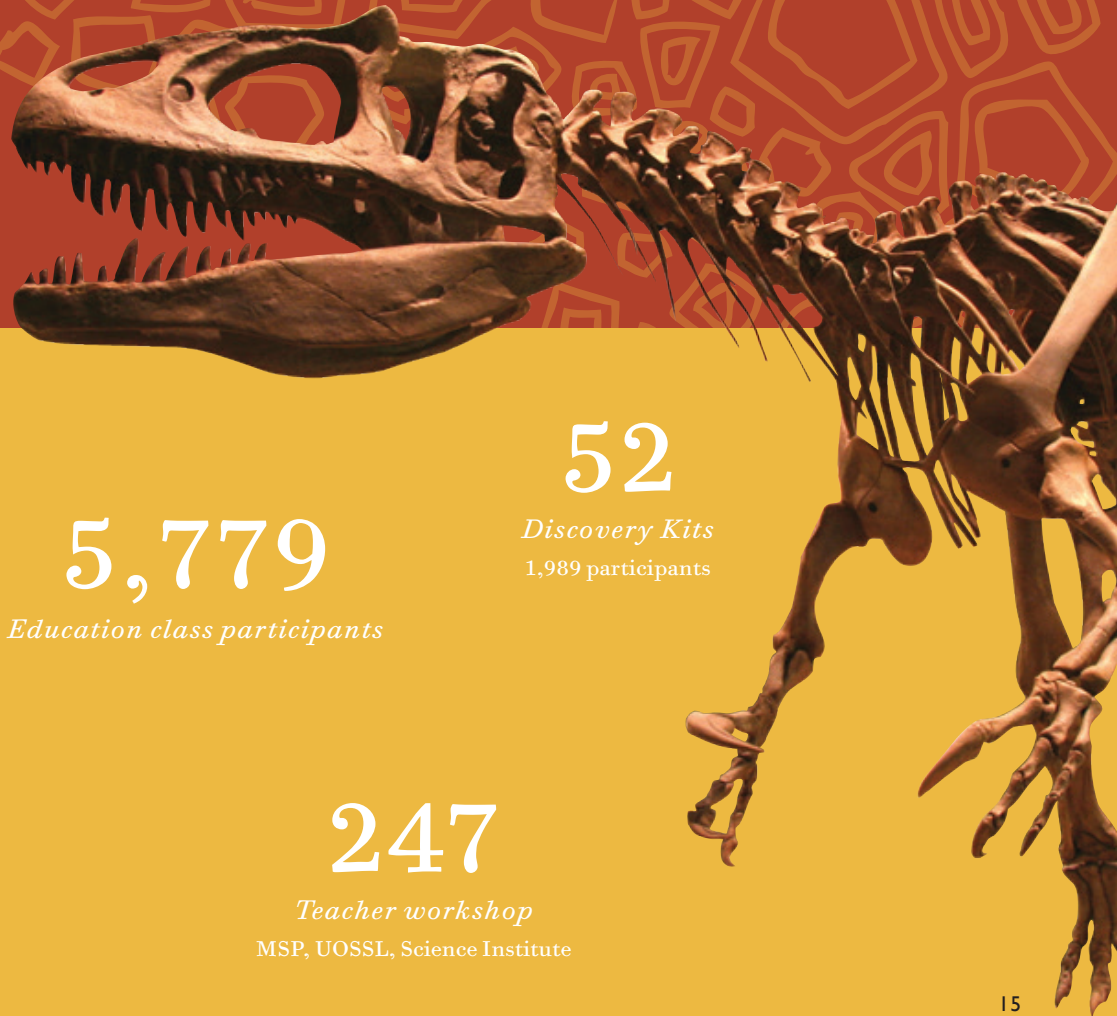
Teacher workshop

MSP, UOSSL, Science Institute

52

Discovery Kits

1,989 participants



PUBLIC OUTREACH

2,333

Visitors

12th Annual ONAYLF

721

Visitors

PLS Library Day

51,563

Discovery Room visitors

110

Discovery Room sessions

2,074 Participants

719

Visitors

Science in Action and
Object ID Day

VOLUNTEERS

Our unique group of dedicated volunteers provided the museum 21,322 hours of service. The museum's volunteer program provided training sessions, lectures and field trips to 224 adult and teen volunteer participants.



198
Adult volunteers
Contributing 21,322 hours

26
Teen volunteers
Contributing 1,166 hours



Congratulations to 2014
Volunteer of the Year
**DONALD
BATCHELOR**

RESEARCH & COLLECTIONS



Overview

The Sam Noble Museum houses more than 10 million objects and specimens representing 12 different fields of science. The museum is committed to providing long-term stewardship according to best practices of the collections that it holds in trust for the people of Oklahoma. 116,700 items were catalogued in 2014 with more than 80,000 objects catalogued in archaeology and about 15,000 specimens catalogued in ichthyology.

Major collection projects in 2014 included completion of the integration of 26,000 specimens from the University of Memphis mammal collection (funded by the National Science Foundation) and completion of cataloging and data basing more than 250,000 specimens of insects (funded by the Institute of Museum of Library Services).

Curators, staff, students, volunteers and research associates use collection objects and specimens in

education and in scientific research that preserves and develops a greater understanding and appreciation of natural resources and human cultural heritage. Research highlights in 2014 included the announcement of a new basal horned dinosaur *Aquilops americanus* by curator Rich Cifelli and colleagues, studies of the genetics of Philippine tarsiers and trade forensics of sailfin lizards by curator Cameron Siler and colleagues. New research projects are underway that will examine the evolution of traits in skink lizards, emerging infectious disease in amphibians and the presence of Texas kangaroo rats in Oklahoma.

Grants

During 2014, curators, staff and students conducted research throughout Oklahoma and the world. Approximately \$1.9 million in new and continuing multi-year grants supported field and laboratory research, collections and exhibitions. These include:



The Sam Noble Museum
houses more than
10 MILLION
OBJECTS

- Developmental and functional mechanisms of complex trait re-evolution: limb loss and gain in skink lizards. National Science Foundation. PIs C. Siler, P. Bergmann, D. Irschick, G. Wagner. \$665,963.
- Infrastructure upgrade, curation, and databasing of the orphaned University of Memphis Mammal Collection, National Science Foundation, PIs J Braun, M. Mares, M. Revelez, \$445,303.
- Collections Stewardship: "Inventory and Databasing of Archaeology". Institute of Museum and Library Services, PI J. Braun, \$149,956.
- Databasing of the collection of recent invertebrates: increasing access to biological information, Institute of Museum and Library Services, PI J Braun, \$149,206.
- Re-organization of Philippine rainforest biodiversity following disturbance on regional scales from a powerful typhoon. National Science Foundation, PIs R. Brown, Senior Personnel C. Siler, J. Esselstyn, \$125,000.
- 'Oklahoma Breath of Life' workshop and documentation project. National Science Foundation-National Endowment for the Humanities, PIs M. Linn, C. Fitzgerald, \$99,301.
- Survey of Clear Boggy, Muddy Boggy, Kiamichi and Little River drainages in Oklahoma to determine distribution and status of fish species of greatest conservation need and potential change in fish communities, Oklahoma Department of Wildlife Conservation, PIs W. Matthews, E. Marsh-Matthews, \$84,600.
- Assessment and survey of the presence, distribution and habitat of the Texas kangaroo rat, *Dipodomys elator*, in Oklahoma, Oklahoma Department of Wildlife Conservation, PIs J. Braun, M. Mares, B. Coyner, \$45,045.
- Native Explorers 2014: "Geochronology and biostratigraphy of the Skull Ridge and Pojoaque Members of the Tesuque Formation in north central New Mexico and of the Monarch Mill Formation in

28
Active grants
Totaling \$1,900,000

57
Publications
34 in press

87
Presentations

NEW DISCOVERIES

- west central Nev.," Chickasaw Nation and Whitten-Burrage Law Firm, Pls K. Smith, N. Czaplewski, \$37,076.
- Long-term repository contract, US Army Corp of Engineers, PI M. Levine, \$26,551.
 - Long-term repository contract, Bureau of Reclamation, PI M. Levine, \$25,206.
 - "Species diversity and survival in a changing environment: developing a new center for biodiversity conservation." Fulbright Fellowship: Advanced Research and University Lecturing Awards in the United States, PI M. Sanguila, Sponsor C. Siler, \$18,000.
 - 2014 Oklahoma Native American Youth Language Fair, Chickasaw Nation, Osage Nation, Sac and Fox Nation, Citizen Potawatomi Nation, Choctaw Nation of Oklahoma, and Wichita and Affiliated tribes, PI D. Swan, \$14,000.
 - "Conservation genetic analysis of recent hybridization between white-faced and glossy ibises," OU Research Council Faculty Investment Program, PI T.Yuri, \$8,674.
 - "In quest of Middle Jurassic vertebrates from North America," National Geographic Society, Pls B. Davis, R. Cifelli, \$8,010.
 - CollectionsWeb RCN-Summer Internship, PI S. Wu, Sponsor C. Siler, \$4,000.
 - University of Oklahoma Big XII Faculty Fellowship, PI C. Siler, \$2,472.
 - Osage Weddings, Research Travel Award, College of Arts and Sciences, University of Oklahoma, PI D. Swan, \$1,290.
 - "The spiders of Muskogee and Cherokee counties," Undergraduate Research Opportunities Program, Honors College of the University of Oklahoma, Sponsor K. Menard, \$500.
 - Open Access Assistance Grant, OU Library Services, PI C. Siler, \$500.
 - UC Action Faculty Grant, OU University College, PI C. Siler, \$223.

9

Genera of fossil vertebrates

10

Species of fossil vertebrates

18

Species of trilobites

10

Species of reptiles and amphibians

211

*Specimens added to the
Ethnology collection*

Archaeology

Archaeology started this past year by hiring **Alyssa Giles** as Collection Assistant in January. In 2014, the department completed the design and testing of an upgraded collections management database and negotiated an agreement with the U.S. Army Corps of Engineers to accept about 400 feet of archaeological collections from Ft. Sill. In the realm of research, curator **Marc Levine** examined material in the Museo Yucusaa collection in Oaxaca, Mexico.

12,302

*Samples in the
Genomic Collection*

Ethnology

The ethnology collection continued to grow this year with the addition of 211 new objects through both gifts and field collection. Additions of note this year include African masks and statues, ancient Greek and Roman coins, Peruvian ceramics and more. The department also coordinated multiple workshops for adults throughout the year and continued to support its robust undergraduate internship program.

Genomic Resources

This collection now houses over 12,000 samples and 34,500 aliquots from 404 genera and 704 species of mammals, birds, reptiles, amphibians, and fish. Genomic resources received a large field collection of tissues from Argentine vertebrates from Research Associate R. D. Sage.



6,970

Objects treated by IPM

Herpetology

In 2014 the department hosted a Philippine Fulbright Scholar Dr. Marites Sanguila, sponsored by **Cameron Siler, Ph.D.**, to conduct biodiversity research at the Sam Noble Museum for five months. The herpetology department also received a three-year grant from the Oklahoma Department of Wildlife Conservation and created a brand-new website for collections and research activities.

Ichthyology

In 2014, the ichthyology department staff continued a collection-wide inventory project and began a project to conserve one of its written collection catalogs. Each of the pages of this written catalog is being encapsulated in archival mylar to maintain the integrity of the pages for the future. When completed, each page will be scanned to create a digital copy.

Integrated Pest Management:

The IPM department kept busy this year by reviewing and updating the IPM Policies and Procedures manual, transferring the IPM webpage to Microsoft SharePoint, and as consultants on IPM issues with the OU Bizzell Library and other museums. The museum continues to be recognized by museums nationwide for its excellent IPM program.

Invertebrate Paleontology

The invertebrate paleontology department played a key role in the development of the *Formed in Stone* temporary exhibit in 2014. Members of the department also helped to author nine different publications and **Roger Burkhalter** played an active role in two iDigBio conferences.



Agalocrinus oklahomensis, from the Invertebrate Paleontology collection, photographed for Formed in Stone



66,000+

*Specimens in the
Mammal collection*

Mammalogy

Michael Mares, Janet Braun and Brandi Coyner received a two-year grant from the Oklahoma Department of Wildlife Conservation for a survey of Texas kangaroo rats in southwestern Oklahoma. Cataloging and integration of the University of Memphis mammal collection was completed; the collection of over 66,000 specimens now includes the largest collections of mammals from Oklahoma (12,500+) and Tennessee (20,000+). Coyner was also selected as the first University of Oklahoma College of Arts & Sciences Young Alumnus for 2014.

Native American Languages

The first curator of Native American Languages, **Mary Linn**, took a position at the Smithsonian Center for Folklife and Cultural Heritage—ethnology curator **Dan Swan** is serving as interim curator. The department

flawlessly executed two public programs this past year, the Oklahoma Native American Youth Language Fair and the annual “Breath of Life, Silent No More” workshop. Thanks to the hard work and focus put on cataloging and data management, the collection proudly represents more than 160 Native American Languages.

Ornithology

Tamaki Yuri, Gary Schnell, Joseph Grzybowski and **Cameron Siler** continued working on a large, collaborative research project over on the hybridization of White-faced and Glossy Ibises. Yuri also gave a presentation on her preliminary results at a joint meeting of the North American Ornithological Societies.

160+

*Languages represented
in the Native American
Languages collection*



Students perform during the 12th annual Oklahoma Native American Youth Language Fair

17,500+

*Digitized records of
plant fossils*

Paleobotany, Micropaleontology, Mineralogy

Over the past year, the department advanced in its digitization of plant fossils with over 17,500 records online, including new catalog records for 3,520 specimens. Research focused on the morphology of 375,000,000 year old pollen from Oklahoma and on collaborating with archaeologists to investigate heat-treated flints using scanning electron microscopy.

Recent Invertebrates

By the numbers, the recent invertebrates department had a banner year: an impressive 1200+ new specimens pinned, 2,600 specimens donated, and 8,000+ specimens cataloged. Over 300,000+ specimens have now been cataloged and databased. Additionally, both curator **Katrina Menard** and collection manager **Andy Boring** were elected to officer positions in the Entomological Collections Network (Vice President and Treasurer, respectively).



Aquilops americanus

Vertebrate Paleontology

This year's star attraction from the department was *Aquilops americanus*, a new basal-horned ceratopsian dinosaur from the Early Cretaceous, making it an ancestor to *Triceratops*, the museum's own *Pentaceratops*, and other horned dinosaurs. *Aquilops* received international media coverage and is housed in a new exhibit display.

Registrar's Office

One of the major highlights from the Registrar's office this year included coordinating the donation of objects from Ambassador McGhee's collection in Virginia to multiple departments in the museum, with assistance from **Stephanie Allen** in the ethnology department. With assistance from volunteers, the department was also able to repackage and photograph the History Collection and create a database for this small but significant group of objects.

COLLECTION GROWTH

How do we grow the collections?

- Field collections
- Repository agreement depositions
- Donations
- Inter-institutional transfers

8,297

Recent Invertebrates


14,737

Ichthyology

80,483

Archaeology

PUBLIC RELATIONS & MARKETING



Spectators enjoy the beautiful weather during the Black Party to celebrate the National Medal win

SOCIAL MEDIA IMPACT

Public relations and marketing promotes exhibits, programs, special events and research at the Sam Noble Museum. Working with Public Affairs at The University of Oklahoma, the department plans year round marketing, is responsible for the museum's website, calendar, blog and social media, including Facebook and Twitter.

The museum drew significant community support from an in-house exhibit of University of Oklahoma professor emeritus, George M. Sutton's extraordinary pictures of birds and other wildlife in spring.

The department hosted a social media blitz in conjunction with the IMLS National Medal ceremony at the White House, inviting museum staff to participate by sharing the live event on their social media platforms. Photos, quotes, video clips and other mentions were posted on Facebook, Twitter, Instagram and the blog as director Michael Mares received the award from the First Lady.

To celebrate the medal with the community, the museum hosted the Historic Block Party and National Medal Celebration June 1 with live music on the lawn, food trucks, complimentary admission, a photo booth and cake.

As a recipient of the National Medal, StoryCorps visited the museum in the fall to interview and record 18 pairs of community members and museum staff documenting their stories about the museum for the Library of Congress.

In December the discovery of *Aquilops americanus*, the oldest North American member of the ceratopsian family, found by a team led by vertebrate paleontology curator Rich Cifeli in 1997 made international news.

136
Press releases

747
Stories published



8,230
Facebook fans



1,981
Twitter followers



488
Instagram subscribers



68
YouTube videos



4,816
eNews subscribers



27
Blog posts

2014 FINANCIALS

\$10,188

Parties

56 Birthday Parties

\$1,900,000

Grants and Contracts

28 Active Contracts

\$368,264

Museum Store

\$58,120

Program Fees

16,422 Visitors



\$150,263



Admissions

127,772 Total Attendance



\$127,797



Gifts



\$42,125



Memberships

984 Membership



\$104,682



Special Events

132 Events

TOTAL REVENUE: \$5.8 Million

TOTAL EXPENSES: \$5.8 Million

2014 NUMBERS

127,772

Museum visitors

1,300

IMLS Block Party attendance

8,230

"Likes" on facebook

8,297

*Items added to the recent
invertebrates collection*

7

Special exhibits

1,981

Followers on twitter

116,700

Collection objects cataloged

57

*Papers published by
museum staff*

28

*Active grants and contracts
awarded to museum staff*

87

*Conference presentations given
by collections staff*

5,073

Spring break escape visitors

41,549

Objects and specimens loaned
82 loans

4,816

E-news subscribers

136

Press releases

2014 DONORS

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Sam Noble Circle

\$25,000 and up

The Bilby Foundation

Museum Circle

\$5,000–\$24,999

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\$1,000–\$4,999

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\$500–\$999

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W.R. & Judy Howell
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Wichita & Affiliated Tribes
Earl Ziegler

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Contributors

\$100–\$249

Billy & Linda Baldwin

Martha Banz

Marion & Dianne Bauman

Karl Bergey

John & Margaret Biggs

Nathan Boren

Jock & Cia Campbell

Fred & Meg Carr

Brandt & Kathaleen Cassidy

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John & Lynette Sutterfield

Wayne Tolle

Regina Turrentine

Earl & Gerry Whitman

Gordon Williams, III

Brant & Carol Worthington

Leon & Rachel Zelby

SELECTED CURATOR PUBLICATIONS

Adrain, J. M., T. Karim, and **S. R. Westrop**. The Lower Ordovician (upper Tremadocian; Stairsian) dimeropygid trilobite *Pseudohystricurus* Ross. *Australasian Association of Palaeontologists Memoir* 45:215-232.

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2014 BOARD OF VISITORS

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Lars Noble, chair	Oklahoma City, Oklahoma
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Jonathan Fowler	Norman, Oklahoma
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Xavier Neira	Oklahoma City, Oklahoma
Eric Sherburn, M.D.	Tulsa, Oklahoma
Carolyn Taylor, Ph.D.	Claremore, Oklahoma
Roy Williams	Oklahoma City, Oklahoma
Zane Woods	Yukon, Oklahoma

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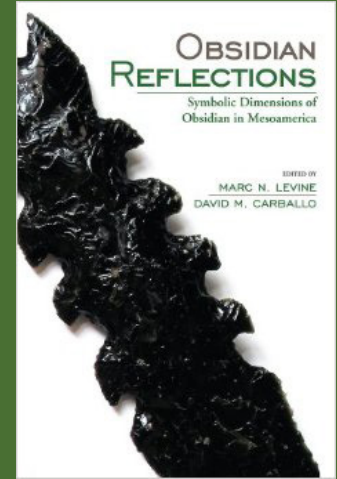
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