

# CATALYST

DENVER MUSEUM OF NATURE & SCIENCE MAGAZINE

WINTER 2015



## INSIDE ///

SHERLOCK HOLMES  
THE POWER OF POISON  
CHOCOLATE: THE EXHIBITION



# MEMBERS APPRECIATION HOLIDAY WEEKEND

FRIDAY–SUNDAY, DECEMBER 4–6

With great appreciation for your membership support, we invite you to continue your holiday shopping with us and enjoy special rewards just for you, all weekend long!

- Save 20% in the main Museum Shop as well as in the *Poison* and *Sherlock* exhibition shops.\*
- Save 20% in T-Rex Cafe—an extra 10% off for lunch.
- Save 10% on gift memberships for your family and friends.
- Save 50% on tickets for Phipps IMAX Theater and Gates Planetarium.

Your purchases support the Museum's science education and research. Thank you for being a member!

\*Everyday 10% discount applies to DVDs, CDs, and books. Special offers are valid in person only December 4–6, 2015, and cannot be redeemed over the phone or online.

Dear Members:

On December 6, the Museum turns 115 years old! On that date in 1900, the Museum was officially founded by a group of prominent citizens who were committed to giving Coloradans access to the world's natural treasures and to advancing public knowledge of the natural sciences.



Thanks to the support of thousands of Coloradans over the decades, today's Denver Museum of Nature & Science is one of the nation's renowned natural history museums. No doubt we've grown in scope and reach beyond what our founders could have imagined. However, our mission hasn't changed much. We continue to strive to use research, collections, exhibits, and education to inspire people to think deeply about their role in our natural world and the impact of science on their everyday lives.

But even in 1900, our founders recognized that "a museum of natural history is never finished." Since opening the Morgridge Family Exploration Center last year, staff teams have been developing and executing new initiatives. You may have noticed some aesthetic changes on the north side of the building. The new planters and landscaping are just one way to make arrival more welcoming. Even small touches such as staff wearing prominent nametags make a difference. We continue to collaborate with our community to create new ways to engage with the public, through special events and enhanced access to the Museum. All new initiatives are shaped by a commitment to being open to all—here, there, and everywhere.

As always, our members continue to be our most amazing supporters throughout the community. In addition to your membership dues, there are other ways you may not even realize you are supporting the Museum, such as bringing your holiday guests for a relaxing day of fun, buying gift memberships, shopping in the Museum Shops, having lunch in the cafe, or sharing with friends how much you enjoyed the *Sherlock Holmes* exhibition or another recent experience.

We are excited as we explore possibilities for how the Museum can be relevant and best serve Colorado for the next 115 years. Without a doubt, you will continue to be a vital part of our future. Thank you for being a member, and best wishes for a safe and happy 2016.



George Sparks  
President and CEO

You may contact George Sparks by e-mail at [president@dmns.org](mailto:president@dmns.org)

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Join Our Community:



## ON THE COVER

From the Museum collections

*The Native Flowers and Ferns of the United States, Vol. II*

RARE QK 112 .M44

Thomas Meehan, 1879, Boston: L. Prang & Co.  
Bullseye condenser, magnifier (ca. 1900), ESI.14  
A light gatherer that was occasionally used for magnification.



Rick Wicker





## WE'RE OPEN THROUGH THE HOLIDAYS

Just a reminder that the Museum will be open throughout the holiday season, except for Friday, December 25. *The Power of Poison* is open through January 10, and *The International Exhibition of Sherlock Holmes* is here through the last day of January. We look forward to seeing you and your holiday visitors at the Museum!

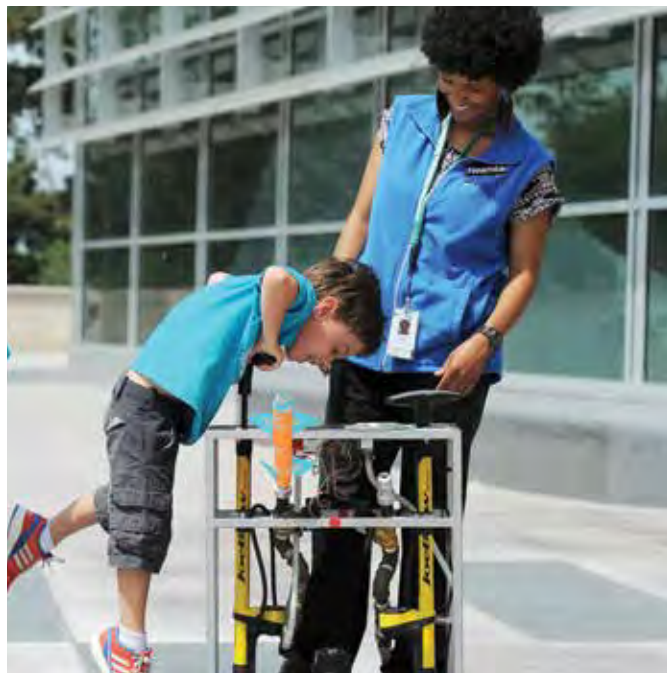
## HEAVENS ABOVE

It's been 10 years since all five of the visible planets—Mercury, Venus, Mars, Jupiter, and Saturn—have appeared together in the same sky. Fast forward to 2016 and the stage is set for the same cast of visible planets to grace our skies. Beginning around January 20 through February 20, all five will appear simultaneously in our predawn and dawn sky.

Visible planets refer to the solar system planets that can be easily viewed without the use of binoculars, telescope, or other optical aid. These five planets are visible because they reflect the sun's light, are nearby astronomically, and shine with a steady light, unlike the distant twinkling stars. They are the only planets known and observed since ancient times. The planets Uranus, Neptune, and the dwarf planet Pluto were discovered much later and are not considered visible to the unaided eye.

In this January and February parade of planets, Jupiter rises first, in the evening hours, followed by Mars after midnight, then Saturn, Venus, and Mercury in the dawn twilight. By the time Mercury rises in the eastern dawn sky, Jupiter is nearing the western horizon.

Find more information about the winter sky @ [dmns.org/heavensabove](http://dmns.org/heavensabove).



## GET READY FOR SUMMER DAY CAMPS

As a Museum member, you have the benefit of advance notification and registration for Summer Day Camps. If you want to be the first to know when registration opens in January, please send your name, member number, and e-mail address to [members@dmns.org](mailto:members@dmns.org). See the schedule at-a-glance and details about preparing for registration @ [dmns.org/summercamps](http://dmns.org/summercamps).

## NEW PLANETARIUM SHOW OPENS

Explore space like never before in the live show *Destination Solar System*! This out-of-this-world tour, departing from Gates Planetarium, takes place on board the Space Express. Travel hundreds of millions of miles in just seconds with Jesse, an enthusiastic, knowledgeable—but inexperienced—tour guide, and Max, a highly advanced, fully integrated onboard computer. Tours of the hottest hot spots and the coldest, stormiest, and most spectacular sights in the solar system await curious space explorers of all ages.

*Destination Solar System* is presented daily. Find times and ticket prices @ [dmns.org/planetarium](http://dmns.org/planetarium).

## KONOVALENKOS NEWLY ON DISPLAY

Two Konovalenko gem carvings are newly on display in Coors Gems and Minerals Hall through mid-2016. The Museum is home to largest collection of gem carvings by Russian artist Vasily Konovalenko outside of Moscow. *Gypsies* and *Hunter on the Mark* are on loan from a private collection.

*Gypsies* in particular is among Konovalenko's masterpieces. A man and a woman quarrel in a complicated scene that is fantastic in detail. A close-up of the man's face reveals expressive details. His left hand is perfectly rendered, with veins and tendons clearly visible. His tongue looks to be moving. Perhaps most startling, however, are the man's eyes. To light the photo, Museum photographer Rick Wicker used mirrors to ensure that light got up and under the hat. The flash produced a slight "red eye" effect in the man's right eye, which looks more human as a result.

Find more about the Konovalenkos @ [dmns.org/exhibitions/current-exhibitions](http://dmns.org/exhibitions/current-exhibitions) and [dmns.org/science/museum-publications](http://dmns.org/science/museum-publications).



## DINOSAUR GULCH OPENS AT CHERRY CREEK

The brand-new Dinosaur Gulch play place at Cherry Creek Shopping Center is the Museum's first offsite exhibition and its newest experience for early learners. Dinosaur Gulch features climbable structures modeled after dinosaurs from the Cretaceous Period, such as *Tyrannosaurus rex* and *Pteranodon*. The Museum's exhibit developers, educators, and scientists collaborated with Cherry Creek Shopping Center and Englewood-based Playtime, LLC, to create a place that brings the Museum experience further into the community and inspires passion for nature and science in young children and their families. Dinosaur Gulch is open during the mall's regular business hours. Check it out while you're doing your holiday shopping!

## MUSEUM GIFT CARDS ARE HERE!

The Museum now offers gift cards that can be redeemed across the Museum, including for general admission, IMAX and Planetarium shows, and programs and lectures, memberships, and in the Museum Shop and T-Rex Cafe. Gift cards with a \$25 value may be purchased onsite at the Ticketing Desk or Members Lane; \$10 to \$500 cards are available for purchase online @ [dmns.org/giftcards](http://dmns.org/giftcards).

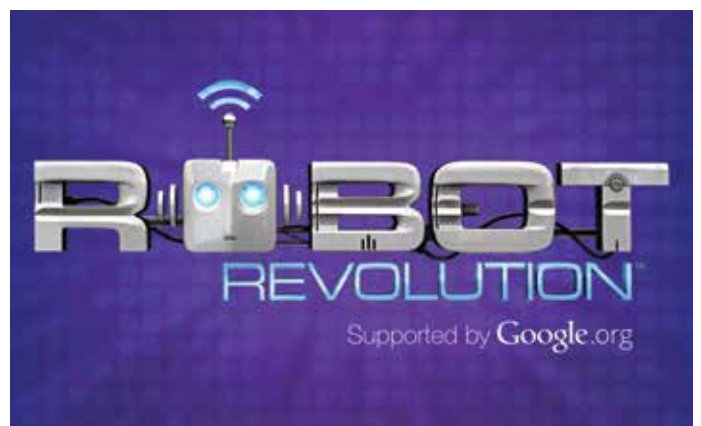
## GET SOME SCIENCE ON THE MUSEUM BLOG

Read about the fifth anniversary of the Snowmastodon Project, the birth of planets, and science topics in the news on the Museum blog, authored by staff and volunteers from the Research and Collections Division. Find it @ [dmns.org/museum-blog](http://dmns.org/museum-blog).

## ROBOT REVOLUTION IS COMING IN MARCH

Explore and interact with a cutting-edge collection of robots from around the world in the new exhibition *Robot Revolution*, supported by Google.org with additional major support from The Boeing Company. Robots that have rarely been shown to the public—from soccer-playing 'bots to impressive humanoids to all-terrain crawlers—demonstrate how these amazing machines can change how we live, work, and play for the better.

Members will be the first to experience *Robot Revolution* at one of our exclusive members-only events. Reservations open on Monday, February 8 @ [dmns.org/memberevents](http://dmns.org/memberevents).







# Chocolate

## THE EXHIBITION

### OPENING IN FEBRUARY

*Chocolate.* The word conjures up visions of candy bars, hot fudge sundaes, and rich brownies, yet its rustic origins extend back thousands of years. *Chocolate: The Exhibition* engages all the senses as you and your family trace the story of the “food of the gods,” from its earliest cultivation among ancient peoples to its status today as the world’s favorite sweet.

Be among the first to see the exhibition during Members-Only Preview Day on Thursday, February 11, the day before it opens to the public!

We mostly know chocolate as a candy or a sweet dessert, but the ancient Maya knew it as a frothy, spicy drink, made from the seeds of the cacao tree and used in royal and religious ceremonies. It was coveted by others—particularly the Aztec—and soon became a valuable article of trade. When the first Europeans reached the Aztec capital, instead of gold they found treasure troves of cacao seeds. Eventually there was an insatiable European demand for chocolate and its new soul-mate, sugar, which led to its rock-star status today.

In the exhibition, immersive exhibits, fun interactives, and detailed replicas and objects place chocolate under the lenses of science, history, and popular culture and reveal facets of chocolate that will be new to visitors of all ages.

- See re-creations of archaeological vessels from Maya culture that once held the cacao drink of kings and nobles.
- Stand under a life-size cacao tree and touch pods and seeds.
- Barter for precious cacao seeds in an interactive Aztec marketplace.
- Follow cacao’s journey to Spain, where it was combined with sugar to create a drink that only the rich could afford.
- Explore how new technology and creative advertising during the Industrial Revolution transformed chocolate from an expensive luxury to an affordable product for all.
- Gaze at beautiful European silver and porcelain chocolate servers, examples of 19th- and 20th-century advertising and packaging, vintage chocolate molds, and detailed botanical reproductions.
- Learn how farmers today grow cacao in ways that protect the rain forest.



"From its earliest roots among ancient peoples to its dominant role as a global commodity, chocolate is a study in world history," said Chip Colwell, the Museum's curator for *Chocolate: The Exhibition*. "Guests of all ages will engage in an experience that not only shows how chocolate came to be such a delicacy but also how its rise to fame and fortune has impacted cultures and our planet along the way."

## MEMBERS TIPS

*Chocolate: The Exhibition* will be open from Friday, February 12, through Sunday, May 8, in Anschutz Gallery, Level 3. Admission is free for members. Please be prepared to present your membership card at the entrance to the exhibition.

Find out more about *Chocolate* members-only events—including Preview Day—on the inside back cover of this magazine or @ dmns.org/memberevents.

Weekday late afternoons and weekend early mornings tend to be less busy in the temporary exhibitions. School groups generally visit during weekday mornings.

Complimentary guest tickets that came with your membership are valid for general Museum admission and may be used for entry into *Chocolate*.

Find out more about the exhibition and related programs @ dmns.org/chocolate.

## CHOCOLATE FUN FACTS

The seed pods of the cacao tree—the source of chocolate—grow not on its branches but directly on the trunk.

Each pod is about the size of a pineapple and holds 30 to 50 seeds, enough to make about seven milk chocolate or two dark chocolate bars.

Cacao flowers are pollinated by midges, tiny flies that live in debris that falls to the forest floor and whose wings beat 1,000 times per second.

Cacao seeds are not sweet. They contain the chemicals caffeine and theobromine, which give them a bitter taste.

The scientific name of the cacao tree, *Theobroma*, means "food of the gods."

Cacao is not related to the coconut palm or to the coca plant, the source of cocaine.

Africa is now the source of more than half the world's cacao, while Mexico today provides only 1.5 percent.

For 90 percent of its history, chocolate was consumed in liquid form.

Some of the earliest European cocoa-makers were apothecaries seeking medicinal uses of the plant.

Chocolate contains two stimulants also found in coffee—caffeine and theobromine—but in relatively small amounts. Fifty M&M's, for example, have about as much caffeine as a cup of decaffeinated coffee.



*Chocolate* and its national tour were developed by The Field Museum, Chicago. This exhibition was supported, in part, by the National Science Foundation.



Presented in Denver by  
**ENSTROM**  
TOFFEE & CONFECTIONERY



## BRINGING SHERLOCK'S WORLD TO LIFE

Rome wasn't built in a day, nor was the Victorian England world that comes to life in *The International Exhibition of Sherlock Holmes*.

An 18-member crew from the Museum's Exhibits Department and from Exhibits Development Group (EDG) spent 15 days installing the exhibition. An interdisciplinary Museum team had already spent months preparing for the experience by developing the historic enactors and education programs, planning marketing and communications, training volunteers, designing the gallery layout, setting up walls, painting, and laying electrical cable. The exhibition arrived in Denver on eight 18-wheeler trucks packed with dozens of crates, including a truck solely dedicated to transporting artifacts.







The exhibition's designer Geoffrey M. Curley said while there have been "many, many" interpretations of Sherlock Holmes in more than 100 years, this exhibition is a tribute to both the historic and fictional side of the Sherlock sensation. He and a team of about a dozen professionals designed and fabricated the exhibition in consultation with a broad range of experts. The experience is built to travel, so it's no mystery that it takes a lot of meticulous work to bring Sherlock's world to Phipps Gallery here in Denver, as you can see in these photos.

Facing page, clockwise from top: Jeff Yearick stages 221B Baker Street. Curley said that "this is perhaps the most accurate to date" depiction of Sherlock's famous study. He said the design team did a great deal of research using information straight from the stories to create this set.

Conservator Jude Southward examines the condition of a typewriter used as a prop in the film *Sherlock Holmes: A Game of Shadows* (2011). The exhibition contains 282 artifacts and props. These items are carefully inspected after being transported and before they are displayed.

John Dilgarde installs the shoe-dragging machine. This hands-on experiment is one of several that guests use to help Sherlock gather clues for the case.

Above: Kathleen Daly of EDG stocks the cosmetic shop shelves in the section evoking the London Underground in 1895. The exhibit designers collaborated with the Museum of London to create an "Exposition" of new inventions and technologies from this era that are referenced in the Sherlock stories.

## MEMBERS TIPS

*The International Exhibition of Sherlock Holmes* is at the Museum through Sunday, January 31, in Phipps Gallery on Level 3. Extended hours will be available at times during the holidays. Find entry times @ [dmns.org/sherlock](https://dmns.org/sherlock).

Members receive a deep discount to this surcharged exhibition and timed tickets are required. Book your print-at-home tickets for *Sherlock Holmes* @ [dmns.org](https://dmns.org) and avoid a handling fee.

Reservations for *Sherlock Holmes* are also available at 303.370.6000 (daily, 9–5). There is a \$2 fee per ticket by phone. Afternoon is the best time to call.

Weekday late afternoons and weekend early mornings tend to be less busy in our temporary exhibitions. School groups generally visit during weekday mornings.

Giving Club members may redeem their *Sherlock Holmes* "anytime" tickets by heading straight to the exhibition for quick and easy access, even if it's sold out. Complimentary guest tickets that came with your membership may be upgraded for admission to *Sherlock Holmes*.

Find out more about the exhibition and related programs @ [dmns.org/sherlock](https://dmns.org/sherlock).

*The International Exhibition of Sherlock Holmes* was developed by Exhibits Development Group and Geoffrey M. Curley + Associates in collaboration with the Conan Doyle Estate Ltd, the Oregon Museum of Science and Industry, and the Museum of London.



## TIWANAKU POTTERY

By Michele Koons, PhD

During my first tour of the anthropology collections when I arrived at the Museum three years ago, I opened a cabinet and nearly fell over. To my surprise, I was looking at an impressive collection of ceramic vessels from the Tiwanaku culture of Bolivia. I am quite familiar with these ceramics because I did my master's research at the Tiwanaku site; however, I had never seen so many outside of Bolivia. But I also noticed this pottery, although clearly Tiwanaku, was slightly different. My interest was piqued. I immediately began researching the history of this incredible collection.



I learned that the collection was donated to the Museum by Marvin Cullum, a petroleum geologist for Bolivian Sun Oil Corporation in Cochabamba from 1957 to 1960. This explained why I noticed a difference in the vessels from the ones at the Tiwanaku site—the Cochabamba region is more than 200 miles to the east of the site through the rugged Andes Mountains.

While working in the region, Cullum purchased 87 pieces from several individuals when there were no restrictions on such practices. The vendors claimed the vessels came from nearby burials at a site called Arani. In addition to the purchased items, the donor reportedly traveled to the Arani site himself and collected approximately 60 assorted ceramic fragments, or sherds. The collection also has a *tupu* (a cloak pin), a copper needle, a bronze ax, and three stone tools.

The practice of buying looted archaeological objects is highly illegal today, as is taking sherds from any site without permission. Without the exact locale for these pieces, our ability to truly understand their role in the ancient past is lost. Nevertheless, these objects made their way to Denver, and we are responsible for doing the best we can to tell the story of the people who left them behind.

The site of Tiwanaku is an impressive place. Between AD 500 and 1100, it emerged as the primary ceremonial, political, and economic center in the southern Andes. Situated just southeast of Lake Titicaca on the Bolivian *altiplano* (high

plain), at its apex the city encompassed about four square miles with an estimated permanent population of 20,000 people. Many monumental structures comprised the core, including the gigantic Akapana pyramid. Tiwanaku's influence stretched as far west as the Chilean and Peruvian coasts and into the eastern Amazon.

Tiwanaku's center catered to travelers and pilgrims from across the region, broadening the Tiwanaku influence on local material culture, such as the ceramics from Arani that are housed at the Museum. The cemetery of Arani is well known. It was excavated in the 1930s by Wendell Bennett, who at the time was at the American Museum of Natural History. The excavations uncovered 41 burials and 151 ceramic vessels associated with the burials. Only 16 of these ended up at the AMNH. In part because of Bennett's excavations, the site became known in the region, leading to increased exploitation by looters.

Ceramics play a key role in archaeology because of their ubiquity in the archaeological record and their ability to track changes through time and space. Ceramics form the backbone of most archaeological chronology sequences worldwide. Bennett noted that the ceramics found at Arani were not true "Classic Tiwanaku" from the Bolivian plateau. They showed deviations from the highland style, such as a preference for certain motifs and slightly different hues. He called this style "Derived Tiwanaku." More recently it has been called Cochabamba-Tiwanaku style and dates to AD 750–1100.

Bennett identified three chronological phases of burials at Arani. Thanks to his work, we can fit the vessels from our collections into these phases even in the absence of excavation data. We can also say that some of these ceramics fall outside of the parameters outlined by Bennett and help to better contextualize Arani's relationship to Tiwanaku and to other local settlements in the Cochabamba region.

In addition to the Cochabamba-Tiwanaku style, this collection has other ceramics local to Cochabamba itself. It represents an incredible cross-section of ceramic styles ranging over at least 900 years, AD 600–1500. Very little has been published on archaeology in the Cochabamba region since Bennett. Our Museum is an invaluable resource as we continue to explore why these people were adapting Tiwanaku styles so far away from the site itself.

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## FIND IT @ DMNS.ORG

Dr. Michele Koons is curator of archaeology. Learn more about her research @ [dmns.org/science/museum-scientists/michele-koons](https://dmns.org/science/museum-scientists/michele-koons).

Most of the vessels in the Museum collection are keros, or beaker-like drinking vessels, like the one below left. The kero represents the most recognizable and ubiquitous vessel form found in Tiwanaku associated sites. They are usually decorated with an elaborate set of painted themes. The kero was reserved for the consumption of chicha, or corn beer, and played a key role in ceremonialism.





## A UNIQUE GIFT FOR YOUR YOUNG PROFESSIONAL

If you are looking for the perfect gift for the young professional in your life, consider a YP membership at the Museum. Young Professional (YP) members receive unlimited Museum admission year-round, discounts and exclusive invitations, opportunities for networking and volunteering, and free tickets to fun events, such as the very popular Science on Tap and After Dark Soiree.

Find out more about the benefits of a YP membership @ [dmns.org/YP](http://dmns.org/YP). The back cover of this magazine has all the details on how to purchase a gift membership. We look forward to seeing your young professional at the Museum.

## COLORADO GIVES DAY 2015

Support the Denver Museum of Nature & Science on Colorado Gives Day, Colorado's largest one-day online giving event. On Tuesday, December 8, thousands of Coloradans will come together to support nonprofits like ours. Last year, donors demonstrated unprecedented generosity by giving \$26.2 million to more than 1,600 nonprofits around the state in just 24 hours!

Giving is easy and secure through the Colorado Gives website, which is presented by Community First Foundation and FirstBank. When you give online

any time on December 8, the value of your donation will receive a boost from the \$1 Million Incentive Fund. You may also schedule your donation in advance beginning November 1.

Your support will help the Museum provide fun, engaging science experiences for the entire community, advance scientific research, preserve and share rare artifacts and specimens in our collections, and present world-class temporary and permanent exhibitions. Find out more on the Museum's donation page @ [coloradogives.org/dmns](http://coloradogives.org/dmns).



## ENJOY ALL THE MUSEUM HAS TO OFFER IN 2016

Thank you for your membership support! We invite you to upgrade your membership today and enrich your Museum experience in 2016.

In addition to all the usual great members benefits, you receive many special perks as a Giving Club member:

- Free anytime tickets to all surcharged exhibitions, such as *The International Exhibition of Sherlock Holmes*, now open, and *Robot Revolution* (supported by Google.org with additional major support from The Boeing Company), which opens in March. No reservations are needed, even if it's sold out! Anytime tickets may be taken directly through the Welcome desk and scanned at the exhibition entrance.
- Free IMAX and Planetarium tickets you may use for yourself or share with friends and family.
- Invitations to popular annual events, such as IMAX Family Night and Behind-the-Scenes Night, and advance access to popular lectures.

Memberships in the Giving Club also make great holiday gifts!

It is easier and more affordable than ever to become a Giving Club member with monthly installments starting at just \$25 per month! Find out more @ [dmns.org/join/giving-club](http://dmns.org/join/giving-club).

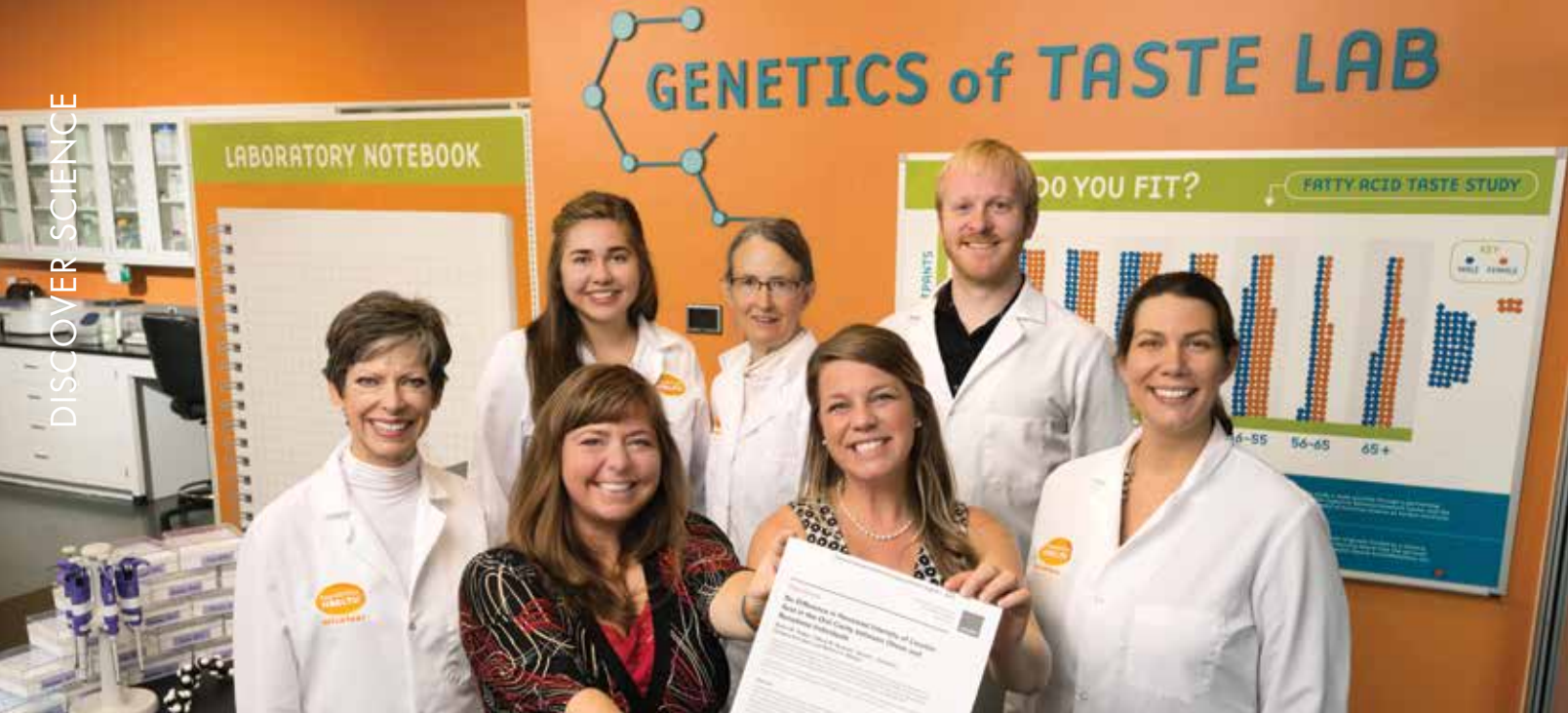
## FUEL YOUR MUSEUM

Donate your used car, boat, motorcycle, truck, or RV to the Museum and support your favorite cultural institution while also receiving a tax deduction. The Museum is partnering with Cars Helping Charities to give you the opportunity to quickly and easily donate a vehicle in any condition. Find out more or schedule a pickup @ [dmns.org/give/vehicle-donation](http://dmns.org/give/vehicle-donation) or 866.697.0697.

## MAKE A MATCH

As you consider your end-of-year giving, keep in mind that your employer may be one of 10,000 companies that match employee donations to nonprofits such as the Museum. Memberships qualify for matching too! See your personnel office for more information and forms.





## A SWEET-TASTING STUDY

By Nicole Garneau, PhD

A sweet tooth can be a dangerous thing in this day of easy access to sugar-filled treats. I am envious of my husband's restraint when it comes to chocolate as I devour more than my share. From his perspective it is not restraint at all; he just doesn't have a sweet tooth like I do.

The science behind how we taste sweet and why some people especially like sweet things is not completely understood. Research confirms that we are all distinctive in our preferences; however, what scientists do not know is what unknown factors might be contributing to the wide range of preferences.

Factors typically considered are genetics, nutritional choices, and what you grew up eating and liking. The mouth itself doesn't immediately come to mind, yet it is worth examining because in science speak it is an oral microbiome, a mini ecosystem of living and thriving organisms.

The human microbiome is a hot topic these days. Most of the bacteria living in and on your body are really good for you. They work with your cells to help your body do all things it needs to do to survive. Of course, there are some harmful bacteria as well, but for most healthy people the good bacteria really do keep the bad bacteria at bay.

I have been mulling over the question of mouth bacteria and taste with my collaborator, Robin Tucker, PhD, of Bowling Green State University. We are ready to find some answers as we launch the latest study in the Museum's Genetics of Taste Lab, housed in *Expedition Health*. The lab is the first crowdsourced and citizen science-driven human genetics lab of its kind. Other major taste studies have been held in the lab in recent years, including one that proved fat as the "sixth taste" and one that challenged the concept of "supertasters."

The groundbreaking Sweet-Tasting Study opened in the lab in early November. For nine months, Museum members and guests will participate in research that takes a look at the genetics of sweet taste and how bacteria communities in the mouth might factor in overall sensitivity and preference.

We invite you to join the study! Adults, teens, and children are encouraged to participate. You must be at least 8 years of age and

accompanied by a legal guardian if under 18. Bring your friends or come together as a family. It is especially helpful to enroll twins and multiples into each of our studies.

The experience takes about 30 minutes. Our trained citizen scientists will walk you through sweet taste tests, gather information from you related to your sense of taste and dental health, complete a quick body composition analysis, and list how everyone is related (genetically or not) if you attend with a group. You will receive a thank-you packet to take home. Our goal is to enroll 1,000 people.

The Genetics of Taste Lab is open each day during regular Museum hours. You can look in and see how a real molecular lab works and watch science at work. We look forward to you being part of the action as we explore why some of us have serious sweet teeth and why some of us don't.

## BE THE SCIENCE!

Joining the Sweet-Tasting Study is easy. Drop by the lab to check on availability, or make an appointment by e-mailing [genetics@dmns.org](mailto:genetics@dmns.org).

## FIND IT @ DMNS.ORG

Dr. Nicole Garneau is curator of human health. She is coleading the study with Dr. Robin Tucker through a partnership between the Museum and the Department of Public and Allied Health at Bowling Green State University. Find out more @ [dmns.org/genetics](http://dmns.org/genetics) and @YoPearlSciGirl on Twitter.

Find out how to become a citizen scientist by contacting Volunteer Services @ 303.370.6419 or [dmns.org/join/volunteering](http://dmns.org/join/volunteering).

Above: Dr. Nicole Garneau (front right) and research manager Tiffany Nuessle hold the most recent science publication to come from the lab's research. Clockwise from Nuessle are Joyce Hutchens, Kathy Lutchi, Wendy Covert, Tyler Wilson, and Laura Harmacek.



## MEMBERS ONLY! CHOCOLATE: THE EXHIBITION

This exhibition will engage all of your senses as you trace the story of the “food of the gods,” from its earliest cultivation among the ancient peoples of the rain forest to its status today as the world’s favorite sweet.

### Members-Only Preview Day with Extended Hours\*

**Thursday, February 11 • 9 a.m.–9 p.m.**

See it before it opens to the public! Enjoy an extra 10% off in the T-Rex Cafe and Deli this day only before 5 p.m.

### Members-Only Evening for Adults (Ages 21+)

**Friday, February 19 • 6–9 p.m.**

Enjoy dinner, cash bar, and the exhibition.

Menu at [dmns.org/memberevents](http://dmns.org/memberevents).

\$50 member, \$60 nonmember

### Members-Only Evening for All Ages

**Thursday, March 3 • 6–9 p.m.**

Optional prepurchased dinner available for an additional charge. See menu at [dmns.org/memberevents](http://dmns.org/memberevents).

Dinner: \$13 adult/junior/senior member, \$8 child member (ages 3–12)

Admission to *Chocolate: The Exhibition* is FREE for members, however, RESERVATIONS ARE REQUIRED and open on Tuesday, January 12.

\*Extended hours for *Chocolate* only; the rest of the Museum will be closed after 5 p.m.

## MEMBERS-ONLY IMAX NIGHT

**Thursday, February 25 • 6–9 p.m.**

Experience the world from the comfort of your theater seat! Your evening will include two films, including a sneak peek of the new IMAX film *Robots 3D* before it opens to the public.

\$7 adult, \$6 child, junior, senior member (per film)

Concession items will be available for purchase.

Reservations open on Monday, January 25.

## MEMBERSHIP BENEFITS AT YOUR FINGERTIPS

Experience the newest version of your membership eCard. This free app is so much more than just a convenient way to store your electronic membership card!

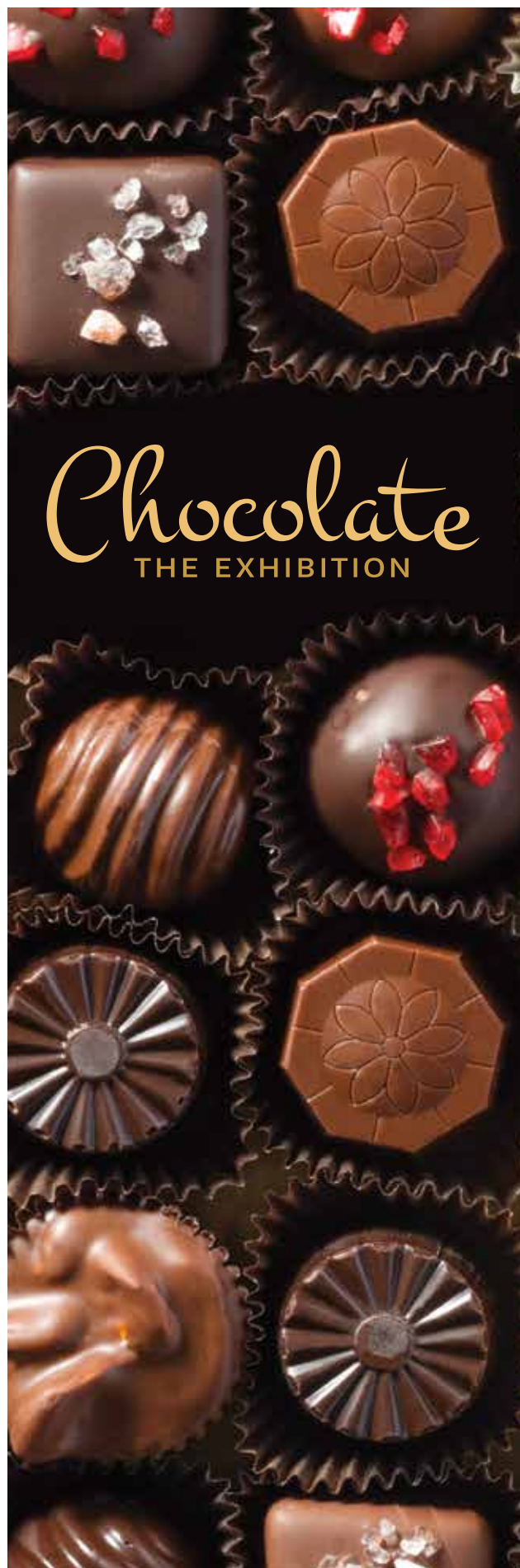
- Print your free general admission vouchers or share them with a friend, right from your phone
- RSVP for members events with just a few clicks
- Read *Catalyst* magazine on the go
- Renew your membership anytime, anywhere
- Receive special members-only notification about upcoming events

If you already have the app on your iPhone or Windows phone, it will auto update. Android users will receive notification that the app update is ready. If you haven’t taken advantage of your eCard yet, simply download it from your device’s app store! Find out more @ [dmns.org/ecard](http://dmns.org/ecard).

### QUESTIONS?

- 303.370.6306 (daily, 9–5)
- [members@dmns.org](mailto:members@dmns.org)
- [dmns.org/members](http://dmns.org/members)
- Stop by the Members Lane at the Ticketing Desk

THANK YOU FOR YOUR SUPPORT! Your membership helps us provide outstanding science education programs, exhibitions, and research.





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## THE GIFT THAT LASTS ALL YEAR

**Give your family, friends, neighbors, colleagues, or staff a full year of activities and adventure with a Museum membership!**

This thoughtful gift provides many benefits:

- Free admission to the Museum 364 days a year. Members may drop by for an hour or stay all day, as often as they wish.
- Discounts on IMAX shows, as well as in the Museum Shops and the T-Rex Cafe and Deli.
- Discounts on surcharged temporary exhibitions, such as *The International Exhibition of Sherlock Holmes*, now open, and *Robot Revolution* (supported by Google.org with additional major support from The Boeing Company), which opens in March.
- Discounts on fun educational programs for adults, children, teens, and families.
- Invitations to exclusive members-only events and exhibition previews.
- Free admission to more than 330 science centers and museums worldwide.

### **Purchasing a gift membership is easy!**

- Go online @ [dmns.org/giftmemberships](http://dmns.org/giftmemberships).
- Come in person to the Members Lane at the Ticketing Desk.
- Call 303.370.6306 (daily, 9–5).
- Purchase onsite December 4–6 and receive 10% off.

To receive membership materials by mail prior to December 24, please complete your purchase before December 16. After December 16, you may pick up a membership gift packet with a blank gift card at the Members Lane.





# DISCOVER

ADULTS | CHILDREN | FAMILIES | TEENS

WINTER 2015

# The Science Lounge

ENTERTAINMENT  
MIND-EXPANDING SCIENCE  
COCKTAILS  
EVERY 3RD THURS 6:30 - 9:30 P.M.



## There is no Science Lounge in December.

Thank you for a fabulous 2015! See you in January!

**January 21: I Love Lucy** Raise your glass and reflect not on resolutions but on days long ago, on origins and ancestors. Uncover the links in the fossil record that we share with our primate cousins and unearth how *Homo sapiens* became the distinct species we are today. You may be inspired to pick up an early stone tool and take a stab at hunting, or perhaps to break into one last round of auld lang syne in homage to *Australopithecus*. It is all in the family as we kick off Science Lounge 2016!

**February 18: Chocolate** Science has never tasted so sweet! Indulge in mouth-watering demonstrations, tastings, and tongue teasers. Trace the history of the world's favorite sweet in *Chocolate: The Exhibition*, test your own taste buds, practice palate drills to challenge your mouth and nose, and don't forget the creamy cocktail at the bar.

Buy tickets at [dmns.org/sciencelounge](http://dmns.org/sciencelounge)  
\$13 Museum member, \$15 nonmember

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# WINTER 2015

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## EXHIBITIONS

### The Power of Poison

Open through January 10 • Free with admission • Anschutz Gallery, Level 3

Uncover the surprising secrets of poison, from the pages of fairy tales to the journals of modern medicine.

### The International Exhibition of Sherlock Holmes

Open through January 31 • Special ticket required • Phipps Gallery, Level 3

Step into Victorian London and work alongside Sherlock as he tackles a baffling new case using your curious mind and scientific methods.

### Chocolate: The Exhibition

Coming February 12–May 8 • Free with admission • Anschutz Gallery, Level 3

Engage all of your senses as you trace the story of the “food of the gods,” from its earliest cultivation among ancient peoples to its status today as the world’s favorite sweet.

### Robot Revolution

Coming March 18–August 7 • Special ticket required • Phipps Gallery, Level 3

Interact with a cutting-edge collection of robots from around the world in *Robot Revolution*, supported by Google.org with additional major support from The Boeing Company.

## PHIPPS IMAX 3D THEATER

Be swept away on adventures from the ocean’s darkest depths to the far corners of the universe.

*Galapagos 3D*

*Humpback Whales 3D* – Closes January 28

*Journey to Space 3D*

*Living in the Age of Airplanes 3D* – Opens January 29

*Secret Ocean 3D*

## GATES PLANETARIUM

Sit back and take an incredible journey as you soar through the cosmos.

*Black Holes: The Other Side of Infinity*

*Cosmic Journey*

*Destination Solar System* – New live show!

*Inside NASA: From Dream to Discovery*

*One World, One Sky: Big Bird’s Adventure*

*We Are Aliens*

**ADMISSION** Museum admission is free for members every day! Special ticket required for *Sherlock Holmes*.

	MUSEUM	IMAX	PLANETARIUM
Adult member	FREE	\$7	\$5
Senior member (65+)	FREE	\$6	\$4
Child/Junior member (3–18)	FREE	\$6	\$4

The Museum is open daily 9 a.m.–5 p.m., with extended hours at various times.

Closed December 25 • Dates, times, and prices subject to change.

Find more ways to discover @ DMNS.ORG


WINTER 2015 | RESERVATIONS 303.370.6000 OR WWW.DMNS.ORG

DECEMBER


SUN	MON	TUE	WED	THU	FRI	SAT
			Poison/Sherlock Members-Only Night	Bird Walk, p.9	Members Holiday Appreciation Weekend	
		1	2	3	4	5
Museum's 115th Birthday		Evolution Then and Now, p.5				Phamily Physics, p.10
6	7	8	9	10	11	12
13	14	15	16	17	18	19
	Holiday Break Camp, p.11				Museum closed	
		Winter solstice				
20	21	22	23	24	25	26
	Holiday Break Camp, p.11					
27	28	29	30	31		



# JANUARY

SUN	MON	TUE	WED	THU	FRI	SAT
					Happy New Year, Museum open	
					1	2
3	4	5	6	7	8	9
<i>The Power of Poison</i> closes			<i>Sherlock Members-Only Night</i>  Indigenous Film, p.5	John Fielder, p.5		
10	11	12	13	14	15	16
		Bailey Film Series, p.6		Science Lounge, inside cover		
17	18	19	20	21	22	23
	SCFD Community Free Day  COURTESY MAKING IT POSSIBLE		<i>Secret Ocean 3D Revealed</i> , p.6  60 Minutes in Space, p.6	Southwest Pottery, p.8	<i>Age of Airplanes</i> opens in IMAX	<i>It's a Mystery</i> , p.11
24 <i>Sherlock</i> closes	25	26	27	28	29	30

# FEBRUARY

SUN	MON	TUE	WED	THU	FRI	SAT
		Digging Deeper, p.8		Digital Earth, p.6		
	1	2	3	4	5	6
SCFD Community Free Day  7	The News from Mars, p.7 8		Meet Charles Darwin, p.7 Indigenous Film, p.5 10	Travels with Darwin, p.7 <i>Chocolate</i> Members-Only Preview 11	<i>Chocolate: The Exhibition</i> opens 12	Junior Surgeons/ Cutting Edge, p.11 13
Valentine's Day Mash-up p.7 14	15	16	17	Science Lounge, inside cover 18	<i>Chocolate</i> Members-Only (adults) 19	Science of Sweets, p.11 20
21	22	23	60 Minutes in Space, p.6 24	Members-Only IMAX Night 25	26	27
28	29					



# AFTER HOURS

AT THE MUSEUM

Encounter new ideas, cutting-edge science, and captivating individuals.

## From Giant Tortoises to Tiger Salamanders: Evolution Then and Now

This special screening of *Galapagos 3D: Nature's Wonderland* introduces you to a cast of animals and a collection of plants that have uniquely adapted to life on the isolated Galápagos Islands. After the film, our chief curator Scott Sampson and Chris Pague from The Nature Conservancy will discuss how the Galápagos continue to play a significant role in our understanding of evolution in general, and the evolution of unique species close to home here in Colorado. A reception follows.

Tuesday, December 8 • 7 p.m. • Phipps IMAX Theater  
• \$12 member, \$15 nonmember



## Indigenous Film

The Museum is pleased to partner with the International Institute for Indigenous Resource Management and the Denver American Indian Commission to present Indigenous Film, a monthly film series. We will screen a selection from a wide variety of films, from documentaries to features and youth film showcases. A rich discussion will follow the screenings. For film titles, check [dmns.org/learn/adults](http://dmns.org/learn/adults).

Wednesdays, January 13, February 10 • 6:30 p.m. • Phipps IMAX Theater • Free, no reservations required

## Colorado's Yampa River with John Fielder

The Yampa River is considered the last major free-flowing river in the seven-state Colorado River Basin. John Fielder photographed his way down the entire length of the river from its headwaters in the Flat Tops Wilderness to its confluence with the Green River in Dinosaur National Monument. Fielder will share stories of his journey and sublime images of tundra wildflowers, eagles and elk, and tributaries and canyons. Afterward, hear from experts working to protect the delicately balanced Yampa system, then purchase a signed copy of Fielder's new book with author Pat Tierney, *Colorado's Yampa River: Free Flowing and Wild from the Flat Tops to the Green*. Copresented with the Colorado Foundation for Water Education.

Thursday, January 14 • 7 p.m. • Phipps IMAX Theater • \$15 member, \$18 nonmember • Book sale & signing

## New from the Bailey Film Series: New Zealand Highlights

Former Museum director Alfred M. Bailey conducted fieldwork around the world during the mid-20th century, documenting it through journals, photographs, and moving images. He shared his adventures during a popular film lecture series featuring his motion pictures and a live talk. Fortunately, his lectures were taped, so with the help of CinemaLab, the Image Archives Department has produced new digital versions of Bailey's films. Join us as we present one of Bailey's favorites. First shown in 1954, *New Zealand Highlights* wowed audiences with a look at rare and endemic birds in rugged sheep country. Filmed well before there were established flights to this island country, the Denver audience was catching a first glimpse of a country they had only heard about. Now you too can see the Maori cultural land of Rotorua before it became a popular tourist destination. Hosted by René O'Connell, Museum image archivist, and Robert David of CinemaLab, who will discuss the preservation and digitization of dying film. (Note date change from the autumn *Catalyst*.)



Tuesday, January 19 • 7 p.m. • Ricketson Auditorium • \$8 member, \$10 nonmember

## Secret Ocean 3D Revealed

Plunge deeper than ever before into a breathtaking world of tiny creatures that have a huge impact on our planet during this special screening of *Secret Ocean 3D* and live broadcast with Jean-Michel Cousteau, son of pioneer ocean explorer Jacques Cousteau. The hidden beauty of our oceans blossoms before your eyes as you encounter some of the most unusual but little-seen creatures on Earth, captured as only the IMAX experience can. Carrying on his family's legacy for ocean conservation, Cousteau directed this beautiful film and will be available via Skype to share stories and answer your questions.

Wednesday, January 27 • 7 p.m. • Phipps IMAX Theater • \$12 member, \$15 nonmember

## 60 Minutes in Space

Go "behind the stories" with space scientists who use the best images and animation to help you understand new developments in space exploration. No reservations required; seating is first come, first served.

Wednesdays, January 27, February 24 (No program in December) • 7 p.m. • Gates Planetarium • Free

## Digital Earth: Island Getaway

Leave the winter blues behind and virtually travel with geologist Bob Raynolds and space scientist Ka Chun Yu to special islands around the world. Using immersive satellite imagery, wander the path of Thor Heyerdahl's voyage on the *Kon-Tiki*, explore Charles Darwin's concept of atolls, and sense the geopolitical importance of the Spratly Islands. Consider island genesis (some by fire, some by ice), the pleasures of archipelagos, and the issues of sustainability experienced today by dwellers of these island worlds, and Madagascar.

Thursday, February 4 • 7 p.m. • Gates Planetarium • \$8 member, \$10 nonmember



## The News from Mars

Hear the latest from the Red Planet from Bruce Jakosky, the principal investigator for the Mars Atmosphere and Volatile Evolution (MAVEN) mission. MAVEN has been orbiting Mars for 18 months and has already uncovered some very intriguing truths about our neighboring planet.

Monday, February 8 • 7 p.m. • Ricketson Auditorium • \$8 member, \$10 nonmember

## Meet Charles Darwin!

Celebrate Darwin's birthday by spending an afternoon with the affable young Charles Darwin. Enactor Brian "Fox" Ellis is back by popular demand to bring Darwin to life. Hear humorous tales of Darwin's training as a naturalist, his insights into South American geology, his discovery of strange creatures on the Galápagos archipelago, and most important, the scientific evidence that led to his revolutionary theory. Equal parts dramatic storytelling, stand-up comedy, and show-and-tell, Ellis immerses you in the intellectual world of one of history's greatest scientific minds.

Wednesday, February 10 • Choose 6 or 8 p.m. • Ricketson Auditorium • \$15 member, \$18 nonmember

## Travels with Darwin

Charles Darwin, brought to life by enactor Brian "Fox" Ellis, leads you on this unique tour through the Museum's dioramas. Meet Darwin in South America and walk on over to the Galápagos Islands. Hear stories of his discoveries including dozens of the 10,000 specimens he collected. Ask questions and share insights with this great man. Darwin will give an exclusive inside look at the specimens in our dioramas and background on the evidence behind his "rEvolutionary" ideas.

Thursday, February 11 • 7:30 a.m. • \$20 member, \$25 nonmember

## Valentine's Day Mash-Up!

Tired of the same old Valentine's Day date night? We've planned an evening that places two Valentine's favorites in the spotlight: love and chocolate! First, enjoy the lecture "Even Educated Fleas Do It" with Paula Cushing, curator of invertebrate zoology, and Jeff Stephenson, zoology collections manager. They will offer an amusing take on sex in the animal kingdom. Just as you might give a fine box of Godiva to your sweetie, other animals make food offerings to sweeten the deal. You won't want to miss finding out what a male praying mantis offers his true love! Then, visit *Chocolate: The Exhibition* where you'll discover how chocolate journeyed from a humble cacao bean to the ultimate Valentine's treat. Ticket includes cash bar, dessert, and admission to the exhibition.

Sunday, February 14 • 6 p.m. • \$20 member, \$25 nonmember

## Coloring the Universe

Everyone marvels over images from space, but have you ever wondered if the colors you see are true? For more than 20 years, Travis A. Rector, an astronomer at the University of Alaska at Anchorage, has created color astronomical images using some of the world's largest telescopes, including Kitt Peak, Gemini Observatory, and Hubble. Rector will share a behind-the-scenes look at what professional astronomers do—and what they don't do—to make these stunning images. His work inspired his new book *Coloring the Universe: An Insider's Look at Making Spectacular Images of Space*.

Wednesday, March 2 • 7 p.m. • Phipps IMAX Theater • \$12 member, \$15 nonmember • Book sale & signing

## Crowdtasting: The Science of Beer and Food Pairings

Love beer and food? So do we, but the science behind why we find certain pairings so satisfying isn't clear. Sign up to be a part of an exclusive focus group led by Dr. Nicole Garneau, Museum curator and taste expert, and her partners from the American Society of Brewing Chemists, the Brewer's Association, and Cicerone. You and your fellow beer nerds, citizen scientists, and foodies participate in tastings designed by the Museum's culinary team and in return, give feedback on your experience. Following the focus group, hear the voting results and what it might mean about the science of taste. Includes beer tastings, hors d'oeuvres, and admission to *Chocolate: The Exhibition*.

Friday, March 25 • 6:30 p.m. • \$38 member, \$43 nonmember

## COURSES

### Southwestern Pottery

Dust off ancient sherds during this introduction to Southwestern pottery, dating before the arrival of Europeans to contemporary pottery. Join ceramics experts Deb Huntley and Larry Harvey as you explore the origins and evolution of this distinctive pottery, technological methods, differences between utilitarian and ceremonial pottery, motifs and forms, and the cultural and religious significance of pottery making. Your instructors will encourage you to bring in a piece or two of your own pottery for study and identification.

Thursdays, January 28–February 11 • 6:30–8:30 p.m. • \$60 member, \$75 nonmember



### Digging Deeper: The Earth Sciences Team at Work

The Earth Sciences curators are back to present the latest from their ongoing research. Joe Sertich will share new discoveries coming from the badlands of the ancient landmass of Laramidia, from Utah to New Mexico. James Hagadorn will share new data on how 550-million-year-old basalts might provide a clue to the appearance of animals and the formation of the Pacific Ocean. Tyler Lyson will share his latest research in South Africa, highlighting the how, when, where, and why behind the evolution of the turtle shell. Ian Miller will share new evidence from fossil leaves in North Dakota showing that deciduous trees growing on the streets of Denver today may have had their origins around the time of the asteroid impact and the extinction of the dinosaurs.

Tuesdays, February 2–23 • 7 p.m. • \$12 member, \$15 nonmember (per lecture) • \$40 member, \$55 nonmember (all four lectures; call 303.370.6000 to register)



## BIRD WALKS & TRIPS

Explore with expert bird guide Norm Lewis, Zoology Department associate.

### Eastern Plains Raptors

Winter can be an exciting time on the eastern plains of Colorado, as winter raptors patrol the prairies and waterways; be on the lookout for rough-legged hawk, golden eagle, and prairie falcon. In the afternoon, travel to Jackson Lake State Park, where long-eared owls winter in the Russian olive thickets.

Thursday, December 3 • 7 a.m.–4 p.m. • \$27 member, \$35 nonmember

### Grand Migration of the Sandhill Cranes

Witness firsthand one of North America's great wildlife spectacles—the migration of the sandhill cranes. Each spring, a half-million cranes converge along a relatively short stretch of the Platte River in central Nebraska. At dawn, flocks of thousands of cranes lift off the river in a roar of wings and prehistoric calls. Don't miss this remarkable display!

Saturday–Sunday, March 12–13 • \$610 single, \$665 double • Itinerary: [dmns.org/travel](http://dmns.org/travel) • reservations: Leisure West Tours, 303.659.4858, 888.443.3350, [www.leisurewesttours.com](http://www.leisurewesttours.com)

### Early Spring Migration

By late March, birds are on the move, and almost anything is possible! Begin at Barr Lake State Park, where great horned owls and bald eagles have begun nesting. Waterfowl abounds, with great blue herons, grebes, diving ducks, and dabblers. Woodpeckers, chickadees, and nuthatches work the woodlands, and riparian brush hosts sparrows and finches. Move on to Denver International Airport, where the “airport loop” should have numerous raptors, with burrowing owls arriving as rough-legged hawk depart.

Thursday, March 31 • 7 a.m.–5 p.m. • \$27 member, \$35 nonmember

## CANOE TRIPS

Museum experts and Centennial Canoe Outfitters plan these specially themed trips. You'll paddle along scenic rivers while soaking in the sun and gaining new knowledge about geology, wildlife, astronomy, and dinosaurs.

Reservations and information: 720.283.0553 • 1.877.353.1850 • [www.CentennialCanoe.com](http://www.CentennialCanoe.com)

### Native Plants, Animals, People, and Skies on the White River

Immerse yourself in the wild and secluded beauty of the White River Can-yon as you float westward from Bonanza, Utah. Museum naturalist and educator Tim Blesse will be your guide to the wildlife, plants, and night skies along the way. Keep an eye out for wild horse herds, antelope, deer, and beaver. For adults 18+ only. K–12 teachers may join this trip and receive re-licensure credits.

June 24–26 • \$421 adult



### **Dinosaurs by Canoe on the Colorado River**

Experience fascinating rock formations from the age of the dinosaurs and paddle your way along the Colorado River with educator Samantha Richards and paleontologist Mike Getty. This stunning journey will inspire and exhilarate nature lovers, history buffs, and explorers alike.

July 15–17 • \$436 adult, \$406 child (6–12 years)

### **Geology and Archaeology by Canoe on the Green River**

Paddle along one of the West's longest stretches of tranquil wilderness water, just north of Canyonlands National Park in eastern Utah. Bob Reynolds, Earth Sciences research associate, will be your guide as you marvel at colorful sandstone walls hundreds of feet high and explore canyons and ancient rock art.

July 20–24 • \$691 adult, \$661 child (6–12 years)

### **Western History by Canoe on the Gunnison River**

Let the magical waters of the Gunnison River whisk you away through the high red sandstone canyon walls of the Colorado Plateau. Museum educator Jennifer Moss Logan will share stories of the colorful characters who left their mark on the western landscape, and offer activities that help you explore the mindset of explorers long ago. For both the adventurer and historian at heart.

July 29–31 • \$421 adult, \$391 child (6–12 years)

### **Stargazing by Canoe on the Gunnison River**

Embark on a memorable weekend with astronomer Dimitri Klebe as you revel in both earthbound scenery and the breathtaking skies above. Without the interference of city lights, learn about planets, constellations, and the Perseid meteor shower. During the day, paddle along the Gunnison River, with time for hiking, nature journaling, and photography.

August 5–7 • \$421 adult, \$391 child (6–12 years)

## **PROGRAMS FOR CHILDREN & FAMILIES**

### **"Phamily" Physics • All Ages**

Spend the morning with Brian Hostetler, science educator extraordinaire, and explore the fundamentals of physics through a "shocking" presentation, followed by a Physics Open House full of hands-on experiments.

Sunday, December 12 • 10 a.m.–noon • adult: \$12 member, \$15 nonmember • child: \$8 member, \$10 nonmember

### **Holiday Break Camps • Grades K–2 & 3–5**

Your child will experience the fun and wonder of the Museum, see IMAX films and Planetarium shows, and make the most of the exhibits, including *The Power of Poison*. Early morning drop-off and late pickup options available.

3-day camp: December 21–23 • 9 a.m.–3:30 p.m. • \$160 member, \$175 nonmember

4-day camp: Monday–Thursday, December 28–31 • 9 a.m.–3:30 p.m. • \$210 member, \$235 nonmember

## It's a Mystery! Science and Story with Sherlock Holmes

Middle schoolers! Explore your Sherlockian side with this writing class, inspired by *The International Exhibition of Sherlock Holmes* and presented in partnership with Lighthouse Writers Workshop. Work on your own “whodunnits” with a team of writers from Lighthouse while you hone your forensic skills in the exhibition.

Saturday, January 30 • 10 a.m.–2 p.m. • \$40 member, \$50 nonmember (grades 6–8)

## Junior Surgeons • Grades 2 & 3 / Cutting Edge • Grades 4–6

Observe and perform dissections to find out how the human body functions. Dissect chicken wings, sheep lungs and hearts, and cow eyes. Examine real bones, listen to your own heartbeat, and more!

Saturday, February 13 • 9 a.m.–3 p.m. • \$60 member, \$70 nonmember

## The Ooey Gooley Science of Sweets for Families • All Ages

Who knew science could be so ... tasty! Grab the family and explore the delicious science of chocolate. Get creative with your taste buds, like combining salty and sweet in chocolate-covered bacon, then taste chocolates through the ages while checking out *Chocolate: The Exhibition*.

Saturday, February 20 • 6–8 p.m. • adult: \$20 member, \$25 nonmember • child: \$15 member, \$20 nonmember

## Coming Soon! Summer Day Camps 2016

See the Schedule-at-a-Glance at [dmns.org/summercamps](http://dmns.org/summercamps). Registration for members opens on Tuesday, January 12.





## **RESERVATIONS AND GENERAL INFORMATION**

303.370.6000, daily, 9 a.m.–5 p.m., or [dmns.org](http://dmns.org)

## **MEMBERSHIP OFFICE**

303.370.6306 or [members@dmns.org](mailto:members@dmns.org)

## **RENEW YOUR MEMBERSHIP ONLINE**

[dmns.org/members](http://dmns.org/members)

## **PRINT-AT-HOME TICKETS**

Print-at-home tickets are available for exhibitions, IMAX and Planetarium shows, and lectures and programs, and there's no handling fee! When you arrive at the Museum, proceed directly to the Ticket Taker booth or to your program. Please always bring your membership card and photo ID when you visit the Museum. There is a \$2 handling fee per ticket for surcharged exhibitions reserved by phone.

## **E-CARD: BENEFITS AT YOUR FINGERTIPS**

Experience the newest version of your membership eCard. This free app is so much more than just a convenient way to store your member number! You'll receive instant access to your members perks and benefits. Find out more @ [dmns.org/ecard](http://dmns.org/ecard).

## **E-COMMUNICATIONS**

Receive a monthly newsletter with updates and special offers as well as advance notices and other insider information when you share your e-mail address with us at [members@dmns.org](mailto:members@dmns.org).

## **CONFIRMATION**

For After Hours programs, classes, field trips, and programs for families and teens, you will receive a reminder e-mail with directions for entering the Museum and other details up to a week before the event. For children's programs, you will receive a confirmation letter and pertinent forms prior to the event.

## **REFUND POLICY**

Sales are final on all tickets unless the Museum cancels the event.

Published by the Denver Museum of Nature & Science © 2015

Hours, fees, and schedules are subject to change.

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**USE YOUR MEMBERSHIP OFTEN! WE'RE OPEN 364 DAYS A YEAR!**



## GO VICTORIAN FOR THE HOLIDAYS!

The Museum Shops Levels 1 & 3



# T-REX CAFE

SALAD BAR, GRILL, KIDS MEALS

11 a.m.—2 p.m.

SANDWICHES, SNACKS READY TO GO

10 a.m.—4 p.m.

Proudly serving locally sourced Colorado products.

