

# Heritage Happenings

Reopening

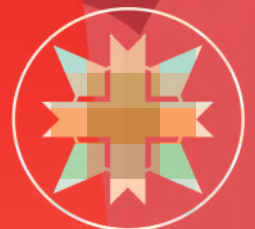
Black Holes

Canyon Diablo

Fun Facts



Spring 2021



Heritage of the  
Americas Museum



## Heritage of the Americas Museum

### Board of Directors:

#### Chairman:

Ron Raymond

#### Board Members:

Julianna Barnes, Ed.D

Lindy Brazil

Mark Lueck

Fred Thompson

Gene Yale

Teresa Dodd-Butera

Kathleen Oatsvall

#### Our Mission:

To educate and to promote respect and appreciation for the early cultural heritage of the Americas and natural history of the world.

**Adults - \$3**

**Seniors/Military - \$2**

**Children 17 & Under/**

**Students- Free**

**Reopening Thursday, April 1st**

**Temporary Limited Hours**

**Tuesdays-Fridays 10am-4pm**

12110 Cuyamaca College Dr W

El Cajon, CA 92019

619-670-5194

## Director's Report

In honor of the Mars Rover, Perseverance, we wanted to go with the theme of space. A theme we could fill volumes of books on and continue to have more articles and newsletters highlighting in the future. If you haven't done so already, you can check out the first ever recorded sound clip on Mars by going to NASA's website. In addition to the amazing feat of another rover of Mars, the Museum has it's own exciting news to announce; we are reopening April 1st! We will have limited hours but we're so thrilled to have our doors open again. During this closure, we've been tweaking and working on our digital field trips. It's been a journey but we want to give a huge 'Thank You' to all schools and volunteers that have participated. Online learning can come with it's own set of challenges that, I'm sure, we're all a little more aware of this year. However, we've had a great group of volunteers aiding us in this endeavor. Check out the pictures below to see a few of our stars, like Dr. Dave Roberts and Terry Valverde. Of course, so many others make up our volunteer family and we are thankful for each and every one of them. If you are interested in becoming a volunteer yourself, reach out to us and let us know. We have positions from helping man our store and greet customers to providing tours as a docent.



Brittany Gardner



Terry Valverde

Dr. Dave Roberts



*Reopening*

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Thursday, April 1st

*Launching*

Temporary Limited Hours

Tuesday-Friday

10am-4pm



Visit our website for updated hours:

[www.HeritageOfTheAmericasMuseum.com](http://www.HeritageOfTheAmericasMuseum.com)

# Black Holes



Image from European Southern Observatory (ESO)  
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What are black holes? We always seem to hear about yet know so little about them. We'll try to fill you in on the latest ideas and theories.

Black holes are a phenomena where a point in space has such a strong gravitational pull, not even light can escape it. They pull in all matter around them. The idea of black holes was brought to light in 1783, when John Michell used Newton's equations for gravity to come up with concept of a large mass having an escape velocity faster than the speed of light. However, this concept hadn't taken much credence until Einstein's theory of relativity provided more credibility for it. The first black hole ever spotted wasn't until 1964 in the system Cygnus X-1. Since then, ideas of wormholes, varying dimensions, time loops, and more, have all been bounced around black holes. The first image of a black hole was only released in 2019, being more the 50 million lightyears away. One of the newer theories suggest that at the heart of a black hole is an infinitely small singularity. So small, it defies the laws of physics in that matter cannot be condensed so small. These are being deemed "dark stars," due to their relationship with the ever elusive idea of dark matter. So while it may look like a hole, it may actually be a super compressed dense matter that has the ability to pack in much tighter than any matter we know of yet.

# Canyon Diablo Meteorites



Image from Mike Beaugard of the Barringer Crater  
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Within the Museum, we house a number of meteorites from space. One of our lovely collections comes from the Meteor Crater in Arizona. The meteor crater was formed an estimated 50,000 years ago when a meteorite's impact made a crater nearly a mile wide and 600-750 ft deep. However, it's journey of discovery for the origin of impact didn't begin until around the 1800s when small meteorite specimens were discovered. Daniel Barringer, an established man of many trades, began his search for the largest meteorite mass in 1903 by claiming stakes in the crater for nickel and iron mining. Over the decades, Barringer spent hundreds of thousands of dollars drilling and searching for the mass. However, it had long been speculated the mass had vaporized upon impact. After Barringer's death, an expert concluded that it would have, indeed, vaporized and fragmented rather than leave a large mass. These fragments were called Canyon Diablo Meteorites as they were found in the area. Today, the crater is still owned by the Barringer family and privately operated as an attraction also known as the Barringer Crater.

# Thank You Museum Members

Below is a list of our members!

## **Benefactor - \$500.00**

Samuel and Kris Ciccati  
Wayne Ewing  
Charles & Beverly Little  
Ron & Sue Raymond  
Wayne & Jo Ann Red-Horse  
Sally Saltzstein  
Frank Sundstrom  
George & Kathy Tomlanovich  
John & Linda Yeager

## **Grantor - \$200.00**

Ron & Nancy Anderson  
Ferd Bergholz  
Dani Cody  
Stephanie Dillon  
Perry & Nancy Durning  
Mike Harlow  
John & Anne Lee  
Andrew & Grace Lu  
Ken & Marie Hunrichs  
Elaine Marteeny  
Susan McDowell  
Irene Morales  
Sharon & Jim Ney  
Patrice O'Halloran  
Dave & Azneef Roberts  
Fred & Joan Thompson  
Linda & Ken Todd-Limon  
Chuck & Cherri Witham

## **Patron - \$100.00**

Laura Autio-Cress  
Jackie Bechtel  
Linda & Mel Beers  
Lindy & Roger Brazil

Gloria & Steve Chadwick  
Marlene Ciccati  
Michael & Helen Collins  
Rosalie Dosik  
Ron & Linda Finnegan  
Stephen & Marianne Hall  
Kevin Judkins  
Jo Ann Knutson  
La Mesa Woman's Club  
Cheryl & Jim Minshe  
Bill Myers  
Larry & Jean Nelson  
Kathleen & Gary Oatsvall  
Rickey Owens-Smith  
Yvonne Paris  
Rick & Heather Phillips  
Trudi Raleigh  
Jane & Paul Reeder  
Patrice Steward  
Bruce & Melinda Wollitz  
Genna Yoder  
Sherry & Tony Zambelli

## **Contributor - \$50.00**

Judy Allen  
Bob & Barb Beedle  
Angela & Garry Cannon  
Steve & Theresa Clippinger  
Joanne Frazier & Dave Boyle  
Roseanne Goodrow  
Earlene Hollmichel  
Kellie Kandybowicz  
Bobbi Marin  
Jim & Linda Michael  
Lew Parlette  
Dennis & Mary Schraeder  
Robert & Donna Seecof

Rick & Jacque Songer  
Cynthis & Jason Sonnabaum  
Dave & Sara Todd  
Terry & Michael Valverde  
Michelle Wallis  
Steven Whiteside & Anne  
Greenstone  
Craig & Michele Wollitz

## **Family - \$30.00**

Cris Abad & Trent Tavernelli  
Carolyn & Ron Boland  
Rebecca Buchko & Chris Pollard  
Lisa & Robert Cardinal  
Sally Cox  
Cherie & Dean Darley  
Darcy & Troy DuGal  
Pat Fitzsimmons and Bill Evans  
Mia & Johnny Fletcher  
Chris & Simone Gay  
Ann & Edward Holler  
Judith & Guy Hunter  
Carlos & Lucy Loureiro & Silva  
Duncan & Nancy McGehee  
Nancy & John Mitchell  
Sandi & Ted Phoenix  
Cyndy Reynolds  
Barbara Ritts-Williams & John  
Williams  
Kathleen & Tom Shevlin  
David & Janille Todd  
Yuki Yamamoto

# Thank You Museum Members

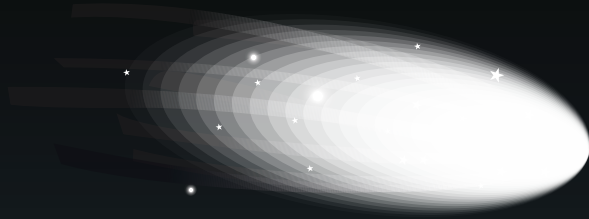
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## Individual

Kathy Abbott	Craig Helm, Sr.	Lynn Rosen & Ron Buchko
Doris Albrecht	Anne Henderson	Lynette Ruhl
Judy Alvarez	Max Hoffee	Katie & Mark Schwendener
Irene Amonette	Louise Holloway	Edwina Shell-Johnson
Ellen Andersen	Elizabeth How	Barbara Simon
Ted Bares	John Jarboe	Dan & Marilyn Solan
John Beckman & Barbara Bender	John Kaiser	Steve Stangland
Paul Beiley	Diana & Anthony Kam	Christine Stockham
William & Teri Blankartz	Ruth Kramer	Deb Stolz
Rusty Bordwell	Roberta Labastida	Virginia Suits
Tricia Bostard	Estelle Lauer	Don & Linda Tabor
Mark & Karen Bowers	Cheryl Lendvay	Becky Taylor
Patricia Brown	Nick & Debbi Leto	Judy & Tom Trussell
Sydney Buffet & Jerome Walker	Steve Love	Terry Valverde
Claudia Burris	Melinda & Danny Lowery	Becky & John Watson
Terry & Carmen Carroll	Kathleen McLaughlin	Donna Wollitz
Lynn Caruso	Jacquelyn & Tom McWhorter	Judy Zint
Jodie Cavanagh	Brenda Meeks	
Ruth Contino	Nancy & Pat Michalowski	
Jim Cregg, DC	Rich & Becky Mitchell	
Marilyn Deitrich	Marian Moses	
Rosalie Dosik	Richard Mueller	
Marianne Ek	Barbara Neff	
Zita Emerson	Rich & Karen Orr	
Mary Kay Engh	Rickey Owens-Smith	
Valerie Eugenio	Jessica C. Perez	
Mary Felter	Louise Petitt	
Brittany Gardner	Maril Platte	
Mary Gayle Gilman	Vicki Pool	
Louis Goldich	Bob & Loretta Pratt	
Roger Graupmann	Jo Ann Ramstead	
Sierra Gruzd	Allison & Joe Ray-Tingzon	
Barbara Hamm	Dyann Reilly, Ph.D.	
Edna Hastings	David Rios	
	Barbara Rojas	



# Fun Facts

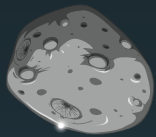
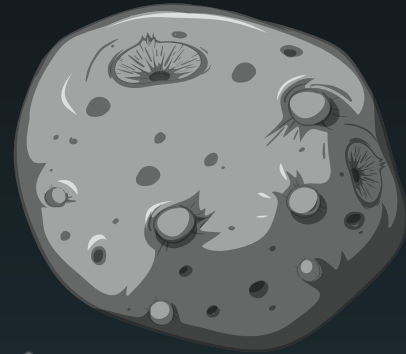


## Comet

An icy object that disintegrates as it travels and leaves a noticeable trail

## Asteroid

A rocky object traveling through space



## Meteoroid

A smaller fragment from an asteroid, planet, or comet

## Meteor

An asteroid or meteoroid that emits a streak of light as it heats up and enters our atmosphere



## Meteorite

A fragment of the meteor that survives after hitting the ground