



CINCINNATI
OBSERVATORY



2010 ANNUAL REPORT



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In This Issue

- 1 • President's Remarks
A message from the
COC Board President

- 2 • Friends of the
Observatory

- 3-5 • Year in Review
Executive Director &
Financial Report

- 6-7 • Astronomy News

- 8-9 • Beauty In History:
John Quincy Adams Oil
Portrait

- 10-11 • The Observatory:
Undergoing a Check-up
• The Cincinnati
Astronomical Society's
Centennial

- 12-13 • Bud Baily, Emeritus
Advocate
• Museums & Historical
Sites of Greater
Cincinnati

- 14-15 • Education Focus
• Scout Programming
Expands

- 16-17 • COC Publicity
• Future Galileos
• UC Communiverity
• Calendar of Events

- 18-21 • Recognition &
Appreciation



The COC Mission

The Cincinnati Observatory Center will promote the study and practice of astronomy among a broad audience, and assist professional and amateur astronomers, schools and universities to further their educational efforts on behalf of astronomy. While fulfilling this mission, The Cincinnati Observatory Center will maintain the integrity and heritage of an historic nineteenth-century observatory, including relevant artifacts illustrating the history of science and the applications of astronomy throughout the years.

In order to accomplish this mission, The Cincinnati Observatory Center will:

Promote public programming, and provide educational opportunities and resources for the public at large, school and university educators and students, and professional and amateur astronomers, including:

- *Public astronomical viewing*
- *Classes and workshops*
- *Tours, displays, and presentations*

Showcase the unique facility as "The Birthplace of American Astronomy" by continually maintaining and improving the buildings, grounds, and collection of historic artifacts, while striving to adopt and integrate the latest technology in fulfillment of our mission.

THE BIRTHPLACE OF AMERICAN ASTRONOMY

President's Remarks

A MESSAGE FROM COC BOARD PRESIDENT MICHAEL FLICK

It is hard to believe that it has already been a year since I took the helm as President of the Cincinnati Observatory Center (COC) Board of Trustees. It is an honor and a privilege for me to be associated with the Birthplace of American Astronomy. Our mission of astronomy education, history and preservation is not new to me. My experience as a trustee and long-standing member of the COC and FOTO (Friends of the Observatory) has allowed me to quickly get into the job.

I am continually impressed by the efficiency and effectiveness of our staff. We have assembled an amazing team of individuals that bring the Observatory and its programs alive. The dedication of our Executive Director, Craig Niemi, coupled with his tireless efforts to manage the day to day operations of our campus is without measure. Education is in good hands under the leadership of Dean Regas who is assisted by Leo Sack. And you can be sure that John Ventre, our Historian, can answer even the most obscure questions about our 168-year history. As one looks through our 1845 telescope, John continually reminds me to consider how many ancestors may have also peered at the wonders of the universe through that exact same instrument! The Observatory has a unique place in both the history of Cincinnati and our Nation. Finally, thanks to FOTO, we have assembled a vibrant organization of volunteers that are so necessary to our continued success in both history and education.

Since our formation over 12 years ago, the COC has been a great steward of the gifts we have received. We have restored our buildings to splendor, developed a beautiful park-like campus and instituted astronomy outreach programs that are second to none.

It is inconceivable to me that the COC will not continue to dominate and lead astronomy education in this region and beyond. As the third COC President, my goal is to insure the continuation and expansion of our educational outreach programs while insuring our history and preservation mission. Generations of Cincinnatians have looked through our historic telescopes. We want our programs to touch all Cincinnati area school children and adults. We all have a part in insuring that the Cincinnati Observatory is here 100 years from now and beyond. Building an endowment is certainly key to this goal.

Our programs and maintenance of the campus do not come without a cost. The fees we charge for services do not cover our expenses. The diligence of Lyn Marsteller and the Development Committee have done a yeoman's job in fund raising. Local and national foundation support totaled more than \$179,000 for program support and staffing, an increase of more than \$100,000 compared to 2009. We also initiated a new annual giving program, the Ormsby MacKnight Mitchel Society. These are first steps toward making our operation financially solvent. However, more work is still needed on this front. Revenues must be increased to offset expenses.

What is the state of the Observatory? Even though we are stretched painfully thin in many areas, we have a highly-motivated staff who are dedicated to our mission. And we have an army of volunteers who are doing phenomenal work helping to bring our mission alive. In short, we are doing a tremendous job with limited resources. We are all ambassadors for the Observatory. Join me in helping to identify individuals and organizations who are interested in preserving a significant part of the history of our city and nation. Times are tight, but they will get better. We are strained and stretched, but we will remain steady, strong, and self-confident as we become the model of what a historic observatory should be.

Michael Flick, Ph.D.
Board President





Friends of The Observatory

A WORD FROM FOTO PRESIDENT, DALE ZOLLER

One of FOTO's primary missions is outreach to the public. FOTO continues to provide the volunteers that make the Observatory's multitude of programs possible. FOTO volunteers participate as presenters, telescope pointers and assistants for the Astronomy Thursday and Friday programs. They also assist with special programs such as the various "planet" nights and "*Sunday, Sun Day, Sundaes*" and *ScopeOut*. In 2010, FOTO developed partnerships with several Northern Kentucky parks providing telescopes for star gazes at Villa Hills, Idlewild Park in Burlington, and Lincoln Ridge Park in Independence. These have been extremely successful, attracting hundreds of viewers at each event. We are already planning to expand the programs in 2011.

One of the biggest changes for 2010 was the adoption of a new committee structure for FOTO. In addition to revitalizing existing committees with new members several were added to help delegate duties from the FOTO Board, individual FOTO volunteers and the COC staff and leadership. The committee reorganization is part of a multi-year strategic planning process which ensures that FOTO continues its vital roles in membership recruitment, programming as well as volunteer cultivation and professional development.

A major draw for potential members is our telescope lending program. In 2010, FOTO provided funding to purchase additional telescopes, along with comprehensive eyepiece kits. These are available to members for a one-month loan. We have also increased the size of our lending library, adding new book and DVD titles.

The new bylaws also provide for the formation of committees to assist with FOTO's various functions. These include committees for hospitality, membership, library, newsletter, telescope lending, dark-sky events and monthly programs. In 2010, committee chairs were selected and members recruited to help plan FOTO activities. The committees will help involve more volunteers in FOTO's various activities during 2011.

As always, none of this could be accomplished without the support of the FOTO members and volunteers. I hope to see you at our monthly meetings and at FOTO events throughout 2011!

- Dale Zoller

ABOUT FOTO

Friends of the Observatory (FOTO) is the support group and amateur astronomy club affiliated with the Cincinnati Observatory Center. FOTO provides staffing for many of the Observatory's programs. Membership is included when joining the Cincinnati Observatory Center.

FOTO's MONTHLY MEETING occurs on the first Thursday of the month at 7:30 PM at the Observatory Center. The meeting consists of 15-20 minutes of organizational business followed an astronomical presentation. Past subjects have included: *Bad Astronomy in Hollywood Films*, *Meteorites*, *The Gas Giants*, *How to Make a Sun Dial*, etc. The presentations are given by amateur and professional astronomers as well as experts in peripheral fields. Subjects are always announced in the monthly FOTO newsletters.

Following the monthly meeting, (weather permitting) members can open the O.M. Mitchel Observatory at the COC for celestial viewing or set up any of the portable telescopes on the lawn adjacent to the Observatory buildings.

The next **FOTO PLANNING MEETING** is scheduled for Thursday, June 16, 6 pm at Panera Bread in Hyde Park Plaza. Open to all FOTO members, the meeting generally lasts about 2 hours for planning future FOTO activities.



YEAR IN REVIEW

The Executive Report

BY CRAIG NIEMI, EXECUTIVE DIRECTOR

Staff picture (from left to right) - Back row: Dean Regas, Outreach Astronomer; Assistant Director; Leo Sack, Outreach Educator; Lyn Marsteller, Development Coordinator; Craig Niemi, Executive Director. Front row: Marsie Hall Newbold, Publicist; Valerie Niemi, FOTO Volunteer; John Ventre, Historian.

It's easy to look at the Observatory's numbers from over the past decade and feel a well-deserved sense of accomplishment for the meteoric rise in overall attendance from 1,500 visitors in 1999 to over 20,000 each of the past several years. To look at the statistics is to see an amazing 235% increase in Girl and Boy Scout attendance since Outreach Educator Leo Sack took lead of our Scout programming last fall. A 70% increase in 3rd, 4th and 5th grade students. The steady rise in interest in our public astronomy programs, special events, history tours and Stonelick stargazes that account for nearly half of that grand total. The growth of our Galileo Astronomy Ambassadors from zero to 80 who to date have given over 400 programs to over 15,000 individuals. To see those kind of numbers and their upward trends are important indicators of our success and certainly satisfying to everyone who puts in long hours making it possible.

Astronomy has fascinated people since the first time they looked skyward. Its influence on art and culture, on people's very existence, has been recorded for centuries. Astronomy is perhaps the oldest of the sciences, but when you look at its history, the store of astronomical knowledge really began to grow with the invention of the telescope 401 years ago. The founding of Cincinnati's Observatory in 1843 led to an explosion of American astronomy that still today is revolutionizing our understanding of the universe around us.

Continued page 4

“Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted.”

- Albert Einstein

THE EXECUTIVE REPORT

- Continued from Page 3



One of the most important tasks I have is to continually evaluate if what we do is making a difference to the community. We do get feedback from visitors, letters from teachers and students, exit surveys and formal evaluations of grant funded programs. But does that really tell the story of the impact we have on Observatory visitors young and old?

While it's our goal that every student who we interact with will grow up to be an astronomer, we're more than thrilled if they go on to become an engineer, a chemist, a teacher or a life-longer learner. It's encouraging to think that perhaps one of the young students who comes for a visit will one day find herself an astro-biologist turning over rocks on a dry Martian plain looking for signs of life. While it would be nice to be able to follow the educational progress and eventual career path of every 3rd grader who takes part in an Observatory program, we have to rely primarily on more empirical data.

The Observatory comes alive when Dean and Leo are sharing their knowledge and passion for astronomy with school groups. You can see it on their faces and know that they are having an authentic and meaningful experience. To hear “Wow!” when visitors of any age see the first quarter Moon or the rings of Saturn for the first time is validation that we've shared something that has lasting and personal value for them. The passion and willingness of our volunteers to give so many thousands of hours of service to the Observatory are key indicators to our success.

That demand in our outreach programs grew in 2009 and 2010 without any advertising meant that teachers recognized the value in what their students were experiencing and were sharing their experience with others in their field. That other organizations seek out or readily accept our invitations to collaborate shows the respect that the Observatory programs have earned. The steady growth in membership and support from contributors speaks volumes to the positive impact the Observatory is having on our community.

When you look at the popularity of science programming on PBS (have you tuned into CET for Dean's appearances on *Stargazer*?) and cable stations, the impact of the Hubble Space Telescope's images on the internet and evening news, the number of calls we receive before and during celestial events like the recent “super” full moon or biennial approach of Mars, you begin to get a sense of the public's interest in all things astronomical.

Of *Discover* magazine's Top 100 Stories of 2010, nearly a quarter of the ideas, discoveries and breakthroughs that are reshaping our understanding of the world around us were in astronomy and physics. The sheer number and capability of mobile “apps” for astronomy is remarkable and is introducing a new generation to the wonders of the sky above and changing how we teach about it. More and more best-selling books such as Micio Kaku's “Physics of the Future” are science titles.

We could go on and on but I think that Einstein's quote of “what counts cannot be counted” is certainly appropriate for the tremendous work that our staff and volunteers do for the community.

Visit www.stargazer.com and search www.youtube.com for Dean's Stargazer episodes.

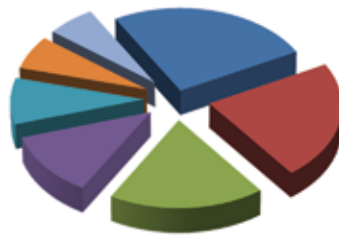
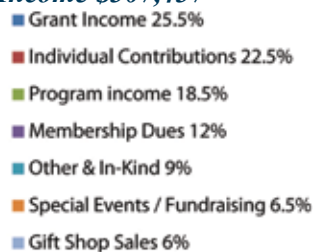


COC 2010 Finances

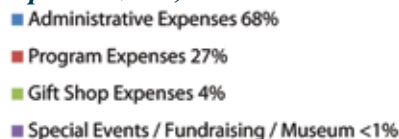
At a time when many non-profits were cutting programming and laying off educators, the Cincinnati Observatory undertook a 3-year expansion plan which included hiring of a second full-time educator to insure that we could meet the steadily growing demand for our school, scout and public programs. A key to the expansion plan was the creation of a strategic development plan to offset these additional costs through increased membership revenue, individual contributions and grants with the goal of self-sufficiency.

Through those fundraising efforts and by controlling costs, the deficit realized in 2010 was cut in half by the first quarter of 2011. All indications are that the deficit will soon be eliminated, leaving the Cincinnati Observatory in an even stronger position than before, allowing the city's oldest scientific institution to serve the Greater Cincinnati community and to preserve this remarkable National Historic Landmark for future generations.

Income \$307,437



Expenses \$362,113



Another component of the expansion plan included updating the Observatory's infrastructure and key procedures. Our aging accounting system has been restructured to one that truly reflects the current operations of the Observatory and provides accurate income and expense tracking that reflects "best practices" compliance with recently changed IRS 990 requirements.

Many assume that the Cincinnati Observatory Center receives city, state, United Way or ArtsWave funding. While we are always seeking new funding partners that are aligned with our mission, it is our members and individual donors that account for over one third of our operating revenue. You are critical to our shared success and we sincerely thank all our contributors for their support.

Footnote for Income Pie Chart:

- Other & In-Kind includes University of Cincinnati in-kind support.



Footnotes for Expense Pie Chart

Administrative Expenses Include :

- Maintenance
- Office Supplies
- Salaries, Benefits & Payroll Taxes- Administration
- Printing & Postage
- Insurance
- Depreciation

Program Expenses Include:

- Salaries, Benefits & Payroll Taxes- Educators
- Outreach Supplies
- Travel Expenses
- Public Program Expenses

The Ormsby MacKnight Mitchel Society

The Cincinnati Observatory Center is deeply grateful to the many donors who have made significant contributions to this organization. Such public support and generosity have been essential since our founding.

In 1842, Ormsby MacKnight Mitchel gave the last in a dynamic and stirring series of public astronomy lectures where he proposed selling shares at \$25 each to be used for the formation of the nation's first public astronomical observatory. In spite of the fact that an Observatory share was a considerable amount in its time, within one month over 300 shares were sold enabling, Mitchel to go to Europe to purchase a telescope.

In 1998, a new generation of Observatory patrons created a nonprofit organization whose mission was "restoration, preservation and education." The Observatory was restored to its 19th century glory and was designated a National Historic Landmark. With a supreme emphasis on education and accessibility, the Observatory has brought astronomy education to the public and area schools, becoming the

model institution recognized around the world. As the oldest scientific institution in Cincinnati, the Observatory has proven to be a good steward of the investments citizens have made 168 years ago.

Become a member of the Ormsby MacKnight Mitchel Society with cumulative contributions of \$500 or more and help further Mitchel's vision of science exploration and enlightenment. In a typical year, your membership and donations help the Observatory to:

- Provide a wide-range of education programs to over 11,000 school children preK-12th grade throughout the region
- Inform and engage over 10,000 adults and families on the campus and under the domes of the Observatory
- Maintain the buildings, telescopes and other instruments as a late 19th century observatory
- Preserve the history of this world-renowned institution
- Offer educational support and teacher training for over 100 teachers in the Greater Cincinnati region

Alan Shepard's First Spaceflight

The May 5, 2011 celebration marking the 50th Anniversary of Alan Shepard's first flight in space by an American astronaut included NASA officials and astronauts, Alan Shepard's family, news media and community organizers and a crowd of more than 700 folks. The event took place at the very launch pad from which Shepard blasted into space from Cape Canaveral Air Force Station, Florida, on May 5, 1961.

The celebration recreated every moment of that short suborbital flight by the late Mercury astronaut Alan B. Shepard. The event unfolded from the very spot and launch pad 5/6 where he blasted off from Cape Canaveral Air Force Station, Florida on May 5, 1961.



Read more online at: <http://www.universetoday.com/>

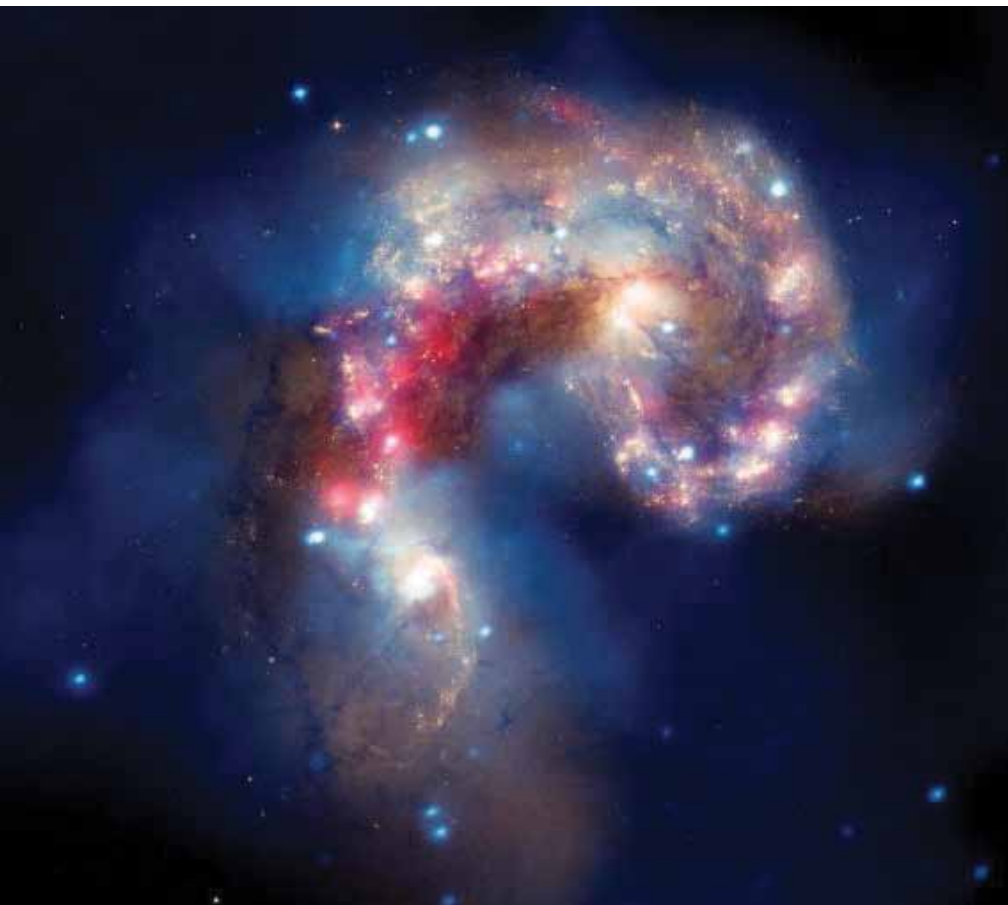


NGC 1275 as captured by the Hubble Space Telescope

Energizing the Filaments of NGC 1275

When examining clusters of galaxies, astronomers often find massive elliptical galaxies lurking at the centers. In some of these long filaments of gas and dust extend outwards from the core. One of the best examples of this is the relatively nearby galaxy NGC 1275 which lies in the constellation of Perseus. In this galaxy, the tendrils are exceptionally narrow, only about 200 light years across, but as long as 20,000 light years in length. While many groups have studied them, their nature is a topic of much debate. The structures tend to be far removed from star forming regions which can cause the gas to glow. So what energy source powers these gaseous ribbons?

Read more online at: <http://www.universetoday.com/>



Witness a Galactic Spectacle

A new image of two tangled galaxies has been released by NASA's Great Observatories. The Antennae galaxies, located about 62 million light-years from Earth, are shown in this composite image from the Chandra X-ray Observatory (blue), the Hubble Space Telescope (gold and brown), and the Spitzer Space Telescope (red). The Antennae galaxies take their name from the long antenna-like arms seen in wide-angle views of the system. These features were produced in the collision. (Credit: Chandra: NASA/CXC/SAO, Spitzer: NASA/JPL-Caltech, Hubble: NASA/STScI)

Read more online at: <http://www.sciencedaily.com/releases/2010/08/100807214437.htm>

ASTRONOMY NEWS

EDITED BY BILL CARTWRIGHT, FOTO VOLUNTEER

The Sombrero Galaxy from Hubble

Credit: NASA, ESA, and the Hubble Heritage Team (STScI / AURA)

What's going on in the center of this spiral galaxy? Named the Sombrero Galaxy for its hat-like resemblance, M104 features a prominent dust lane and a bright halo of stars and globular clusters. Reasons for the Sombrero's hat-like appearance include an unusually large and extended central bulge of stars, and dark prominent dust lanes that appear in a disk that we see nearly edge-on. Billions of old stars cause the diffuse glow of the extended central bulge. Close inspection of the bulge in the above photograph shows many points of light that are actually globular clusters. M104's spectacular dust rings harbor many younger and brighter stars, and show intricate details astronomers don't yet fully understand. The very center of the Sombrero glows across the electromagnetic spectrum, and is thought to house a large black hole. Fifty million-year-old light from the Sombrero Galaxy can be seen with the Observatory's two historic telescopes.



Crab Nebula Erupts in a Superflare

NASA's Chandra X-ray Observatory reveals the complex X-ray-emitting central region of the Crab Nebula. This image is 9.8 light-years across. Chandra observations were not compatible with the study of the nebula's X-ray variations. Credit: NASA/CXC/SAO/F. Seward et al.

The famous Crab Nebula supernova remnant has erupted in an enormous flare five times more powerful than any flare previously seen from the object. On April 12, NASA's Fermi Gamma-ray Space Telescope first detected the outburst, which lasted six days. Several other satellites also made observations, which has astonished astronomers by revealing unexpected changes in X-ray emission the Crab, once thought to be the steadiest high-energy source in the sky.

Read more online at: <http://www.universetoday.com/>

NASA's Chandra X-ray Observatory reveals the complex X-ray-emitting central region of the Crab Nebula. This image is 9.8 light-years across. Chandra observations were not compatible with the study of the nebula's X-ray variations. Credit: NASA/CXC/SAO/F. Seward et al.



BEAUTY IN HISTORY

John Quincy Adams Oil Portrait

BY JOHN E. VENTRE, COC HISTORIAN

Visitors to the Cincinnati Observatory frequently notice the oil portrait of former President John Quincy Adams that hangs in the lobby of the Herget Building; however, few of the visitors are familiar with the history of this historical painting. William H. Powell (b. 1823-d. 1879) painted this portrait in 1847.

He also painted the "Discovery of the Mississippi by Hernando De Soto, A.D. 1541," the last of the series of eight monumental panels commissioned for the U.S. Capitol's Rotunda. Powell received a commission of \$12,000 for this painting. He also painted "The Battle of Lake Erie" which is displayed in one of the stairwells of the Capitol's Senate Wing. It depicts Commodore Oliver Hazard Perry being rowed from his disabled flagship Lawrence to his only intact ship, Niagara. A second copy of this work hangs in the Ohio Capitol.

Powell desperately wanted to be commissioned to complete the last panel of the Rotunda. He sought advice from John Quincy Adams, of whom he had earlier asked for a sitting in order to paint his portrait. He wrote Adams from Brown's Hotel in Washington in 1847:

"Will you do me the favor to let me know how long you will probably remain in Washington? It was my intention to have called upon you, on Saturday last, but illness has confined me to my room since Friday night. As I expect to be out tomorrow or next day, I should be glad to know, if you will remain here long enough, for me to paint the portrait for which I solicited you to sit? I am also desirous to have some conversation with you in reference to the selection of a subject, for the rotunda Panel, and shall esteem it a great favor to have your views on this important matter."

Prior to this time, on November 20, 1846, while in Boston, Adams suffered his second of three strokes; he did not return to Washington until mid-February, 1847. Powell and Adams eventually met, and Adams permitted various sittings for his portrait between March and June, 1847. It was in all likelihood painted in recognition of Adams' visit to Cincinnati in 1843 to lay the Observatory's cornerstone on a hill that eventually was named Mt. Adams in his honor.

During this period many details were absent from the Adams' diary, which is attributed to his stroke. Some art critics say that they can recognize in Adam's face, as depicted on the Powell's portrait, the traces of this illness.

"The rugged severity of expression usually present is gone and what we see is the almost pathetic, worried look of an old man whose sand was fast running out."



Powell's request to Adams for a consultation on painting the last panel of the Rotunda evidently was granted. Adams was known for his freely offered advice to artists on the subject of their historical paintings or sculptures, there is little doubt that he made suggestions to Powell with respect to his "Discovery of the Mississippi" and perhaps even aided him in securing its commission. Perhaps Adams even offered advice on his own portrait.

In the summer of 1847, Powell returned to Cincinnati for a visit. Powell was born in New York but he was reared in Cincinnati, and when he was about 11 years old he began painting lessons with James H. Bears. Nicholas Longworth was subsequently a financial benefactor of Powell's. While in the city during 1847, Powell, probably along with Longworth, visited the Cincinnati Observatory on Mt. Adams--the four acres of land upon which the Observatory was situated was four years previously donated by Longworth.

On February 7, 1848, Powell wrote from New York the following letter to Judge Jacob Burnet, the President of the Cincinnati Astronomical Society.

"During my sojourn in Cincinnati last summer I made a visit to the Astronomical Observatory. To say that I was pleased with it or came away gratified would be to express very feeble the intensity of my (undecipherable word) or the feelings of pride with which my eyes rested upon the "Queen City" below, where right minded citizenry had raised this temple to a science which more than any other dignifies and solidifies thought, induces continued exploration of the mysterious soul-awing nature of our existence & of the mighty powers of the Great Creator.

I look upon the Observatory as a kind of "Mount Sinai" from whose heights the people of our fair City may hear the voice of God in the still twilight of the day.

Now my dear Sir having said this mainly in admiration of the Observatory I desire to make it (two words crossed out which cannot be deciphered) manifest by presenting to the Society a portrait of the venerable man who laid the first

stone of the edifice "The Hon. John Quincy Adams". The portrait is I believe the last that has been painted of him & is esteemed a good likeness. Should the Hon. Director of the Society with yourself be disposed to accept this humble expression of the interest I feel in the picture shall be forwarded to you at once."

On February 21, 1848, Adams suffered his third stroke and collapsed in his seat on the floor of the House of Representatives during the roll call on a voting resolution of thanks to American generals and troops who served in the Mexican War. He was transferred to the Speakers Room at the Capitol, and on February 23, 1848, John Quincy Adams died in that room.

On February 28, 1848, the Astronomical Society's Board of Control resolved that the proposed donation of the portrait of John Quincy Adams by William H. Powell be accepted and that the thanks of the Society are to be presented to Mr. Powell for the same, and also that Powell be constituted as a member of the Society.

Adams' death occurred five days prior to the Society accepting Powell's portrait of Adams, and potentially the Board members had not yet received word of Adams' death. Powell's portrait of John Quincy Adams has continuously been displayed by the Cincinnati Observatory ever since.

The next time that you are at the Observatory, take some time to view this significantly historical Adams portrait, and notice that the small plate on the bottom of its frame states "William Henry Powell" and the date "1847". The painting is signed "W.H. Powell Pinxt. 1847". It is the last life painting taken of Adams.

References: Adams, John Quincy. Diary; Cincinnati Astronomical Society Board of Control Minutes, Feb. 28, 1848; Cincinnati Art Museum. "The Golden Age-Cincinnati Painters of the Nineteenth Century"; Oliver, Andrew. "Portraits of John Quincy Adams and His Wife"; Powell, William Henry. Obituary; Wheelan, Joseph. "Mr. Adams's Last Crusade"; & Wikipedia

*"...I look upon
the Observatory
as a kind of "Mount Sinai"
from whose heights the
people of our fair
City may hear the
voice of God in the still
twilight of the day..."*

Discovery of the Mississippi - 1847 William H. Powell (photograph courtesy Architect of the Capitol)

William H. Powell was the last artist to be commissioned by the Congress for a painting in the Rotunda. His dramatic and brilliantly colored canvas shows Spanish conqueror and explorer Hernando DeSoto, riding a white horse, the first European to view the Mississippi River, in 1541. As De Soto and his troops approach, the Native Americans in front of their tepees watch, and a chief holds out a peace pipe. In the foreground is a jumble of weapons and soldiers, suggesting the attack they had suffered shortly before. To the right, a monk prays as a crucifix is set in the ground. Powell (1823-1879) was born in New York and raised in Ohio. He studied art in Italy and worked on the painting in Paris. He also painted The Battle of Lake Erie, which hangs in the east Senate Grand Staircase in the Capitol. The dimensions of this oil painting on canvas are 365.76 cm by 548.64 cm (144.00 in by 216.00 in).



Porter Scope Base
BEFORE



AFTER

PRESERVATION

The Observatory: Undergoing a Check-up

BY CRAIG NIEMI, EXECUTIVE DIRECTOR

Long time member & volunteer, Mike Helfen, recently embarked on a new career. Mike bought a Furniture Medic franchise from the Service-Master Company based in Memphis, Tennessee. Furniture Medic is one of seven service oriented business lines in the Service Master family. Furniture Medic specializes in on-site precision repair of furniture and wood for antiques, specialty items, millwork, paneling, doors and banisters, cabinetry and mantels and hardwood floors. Other services can include cabinet refacing, furniture structural repair and stabilization, precision repair of wood and laminate surfaces, refinishing and polishing, and color matching. Each Furniture Medic franchise is independently owned and operated and can offer all or some of the services above.

As part of the 180+ hours of hands-on or on-line training, new Medics are encouraged to continue perfecting and maintaining the craft by donating their services to a local nonprofit organization. Medics are also backed up by a 24-hour help hot-line and a Medic bulletin board where the 300+ Medics can offer and exchange ideas and expertise.

The Cincinnati Astronomical Society's Centennial

BY TERRY ENDRES AND CRAIG NIEMI

During the late 19th and early 20th centuries, photography helped transform astronomy into a dynamic field of exploration. Long exposures revealed secrets hitherto unknown to visual observers. Try to imagine astronomy today without the remarkable images from the Hubble Space Telescope. However, there was a time, one hundred years ago, when one man's decision not to embrace astrophotography led to the establishment of the Cincinnati Astronomical Society (CAS) on the west side of Cincinnati.

cincinnati Observatory. For the foreseeable future, Porter would dedicate most of the observatory's efforts to classical astrometry as was the tradition of the observatory since the mid 1840's.



Dr. Deslisle Stewart

Dr. Stewart, unfazed, finished his projects for Cincinnati Observatory and then left to form the Cincinnati Astronomical Society. He envisioned a group dedicated to astrophotography and public education. After attracting a group of like-minded colleagues, on April 21, 1911 Deslisle Stewart's Cincinnati Astronomical Society was officially chartered. To put aside any animosity between the two organizations, Dr. Porter joined as a charter member of the new CAS.

member of the new CAS.

The enthusiastic support Stewart attracted led to a grand design that incorporated three observing domes - the main dome to enclose a 27" telescope. The building was to be faced with enormous granite blocks salvaged from Cincinnati's architecturally significant Chamber of Commerce building which was recently lost to a catastrophic fire where 6 lives were lost.

Because of the Great Depression nothing much beyond the lower level had been erected by the time Stewart died in

Dr. Delisle Stewart, a Harvard trained assistant at the Cincinnati Observatory, was championing the use of photography as a research tool. He could clearly recognize the value of utilizing state of the art astrophotography equipment for research. His superior, Dr. Jermain Gildersleeve Porter, was not as enthusiastic and chose not to incorporate photography into the research of the Cin-



Cincinnati Observatory's
16" Telescope ca 1904

Starting in early December, Mike began to touch up nicks and dings on the doors, trim and shelving in the Herget building in preparation for the Christmas Luminary. Since then, he has continued to work on such projects as touching up the Porter Scope base, repainting and blending in the baseboards and window sills on the north walls of the rotunda. He has also re-glued and repaired the memorial bench just inside the door of the Mitchel building, along with the library table and chair. He is working with John Ventre, COC Museum Committee Chair, on some other items to determine a plan of action.

More than likely this will be an on-going project, keeping the COC in that “well used, but cared for look”. Between volunteering as a presenter, in another capacity or working on the wood at the COC, you’re sure to see the Furniture Medic truck at the COC more often.



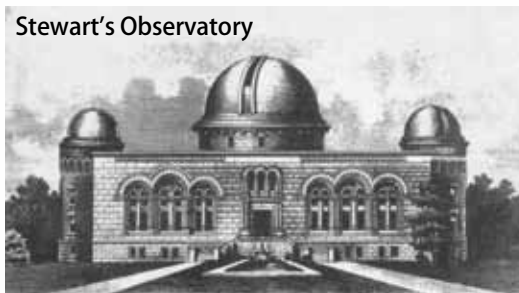
Window Sill & Trim
BEFORE



AFTER

Mike has been a member since 1999. His son A. J. and daughter Judy were active participants in the Observatory’s FOTOKids program. A. J. just graduated from BGSU with a Bachelors in Physics and a minor in Astronomy and has begun an internship at the Buehl Planetarium in Florida. Mike can be reached at mike@fmh-restorations.com or 513.735.5700

1941. Without Stewart’s passion, the building would not be finished and today its skeletal remains lie nearly buried. This would not be the end of the Dr. Stewart’s Astronomical Society. Membership remained reasonably strong, and in the late 1950s, CAS members played a significant role in Project Moonwatch for tracking artificial satellites, and they and the public would soon be drawn into the Sputnikmania infecting the entire globe.



Stewart’s Observatory

Through the subsequent decades, CAS’s fortunes wavered a bit. Nevertheless, members erected four observatory buildings to house its most cherished assets, their telescopes. CAS’s two member-built reflectors are still in use today. The 14” reflector features a mirror ground from a battleship porthole and the 16” features an exquisite mirror figured by the late Richard Wessling who often shared his optical expertise in preserving the Cincinnati Observatory’s two historic telescopes. The crown jewel of the Society is the 1880 eight inch Alvan Clark refractor acquired in 1924. The Clark telescope has its own remarkable story having had its lens stolen by a member and eventually recovered decades later through the persistent efforts of CAS member and Cincinnati Observatory historian John Ventre and the Antique Telescope Society.

By the 1990s, visionary leadership led to a resurgence in the Society’s activities. Light pollution having found its way to the once rural headquarters location; funds were secured to purchase a dark sky site where Dr. Stewart’s 27” mirror gathers starlight. CAS built a new, multi-purpose headquarters with lecture space for over 100 visitors, a

member’s library and archives.

The new headquarters has ushered in another dynamic era of activity. CAS is now devoting more resources and energy to outreach and public education including collaborations with the Cincinnati Observatory Center, college credit courses for Cincinnati State College, Scout badge programs, K-12 school programs and a full calendar of public stargazes. Activities that are drawing in new members who will share with the Cincinnati community Delisle Stewart’s passion for astronomy into the next century.



CAS’s 8” Clark Telescope

Bud Baily, Emeritus Advocate

BY LYN MARSTELLER, DEVELOPMENT COORDINATOR



On a dreary late winter morning, Oliver “Bud” Baily made very clear points as to why he has been a supporter of the Cincinnati Observatory for more than 12 years.

But it started decades earlier. In 1959, he and his wife Joan lived on Observatory Place, two doors away from the Observatory. By the 1970s, it was clear that the Observatory was no longer the cutting edge science that it had been a century earlier. The Baily family had moved to another home in Hyde Park, but Bud,

an engineer at Cincinnati Milacron, remained interested in the Observatory, hoping something more could be made available to the public at the historical buildings.

In the late 1990s, Baily learned that there was a resurgence of activity at the Cincinnati Observatory. He came for a visit at the request of Naomi Stoehr (Gerwin) and he’s been an advocate for the education and history programs ever since. He “had a strong feeling that it was important to keep this as a resource to the community” and joined the Board in 1999 shortly after the Observatory incorporated as a nonprofit.

Not a passive Board member, Baily has hosted events, been an active member of the Development Committee, researched some of the founders of the Observatory and been an enthusiastic advocate for the National Historic Landmark.

Enthusiasm for the historical buildings and collections of the Observatory figure strongly into how Bud views charitable giving by his generation. He has regularly brought friends, neighbors and children of all ages to tour the facility and feels that it provides a unique setting for illustrating the continuity of history. Every child who looks through the 1845 telescope and becomes enchanted by the stars has a connection to why the early donors felt their contribution in the Observatory would be a lasting investment.

When asked why he gives time, thought and contributions to the Observatory, Baily explains that he believes the Observatory is a rare setting to connect history as an inspiration and enhancement to learning science, astronomy, math, mythology and physics, all with one visit to the facility. “It’s more than a national monument or landmark. The programs go beyond rote learning in school to spark curiosity, while using a connection to the history of the country, science and the growth of Cincinnati.”

“Education must be self-inflicted,” he learned from a Yale professor. While he chuckles at this terse phrase, Baily believes that exposure to the telescopes and the hands-on education programs stimulates a curiosity in children that can lead to a life-long pursuit and career.

An Emeritus member of the Cincinnati Observatory Board, Bud Baily hopes you will join him in considering a gift from your IRA (see article below) to support the Cincinnati Observatory Center. You’ll be helping to keep the Observatory strong for the next seven generations.

Charitable Contributions of IRAs

Individuals age 70.5 years old or older may make tax-free “qualified charitable distributions” of up to \$100,000 of their individual retirement account (including Roth IRA’s) directly to a qualified charity in a trustee-to-trustee transfer. The charitable gift bypasses reporting on the tax return (no IRA income is reported and no charity deduction is reported), which can keep a charitable person’s adjusted gross income lower and thereby avoids any adjustments in Medicare premiums. Extended for two years: 2010 and 2011.

The 2010 Relief Act now extends this exclusion again for qualified charitable distributions through 2011 and will apply to distributions made before January 1, 2012. The provision also contains a special rule that allows taxpayers to elect to report any qualified charitable distribution made after December 31, 2010, and before February 1, 2011 as though it was made on December 31, 2010 (i.e., count towards the 2010 taxable year).

Foundation Support for Observatory

Expanding the Universe - a matching challenge grant from the Haile/US Bank Foundation for 2010-12 to expand education programs with the addition of a second Astronomy educator. The Observatory family is very grateful for the support of the following funders: the Anderson Foundation, the Dater Foundation, an anonymous donor and two private donors.

Preserving America’s First Telescope – to repair, restore and repaint the dome of the Mitchel Building, protecting the Merz & Mahler telescope for today’s school children and future generations. With the generous support of the following funders, the Mitchel dome will be repaired with minimal interruption to the viewing audience: the Sutphin Foundation, the Louise Taft Semple Foundation and the Schroth Foundation. The Ohio Valley Foundation also provided support that was received in 2011 for this project.

The Greater Cincinnati Foundation provided grants to support IT and communications improvements for operations and also a Summer-time Kids grant for the *Out-of-This-World Astro Camp Scholarships*.

We are deeply grateful for the continuing support of the Skyler Foundation. Their commitment to the education programs has enabled the programs to build on past successes and reach farther in the night sky for the children of our community.



ScopeOut 2010 keynote speaker Dr. Michael Brown once again demotes Pluto. Dr. Brown's is the author of "How I Killed Pluto and Why It Had It Coming".

When Pluto was first demoted, people asked Dr. Brown, "What about the children? How could you do this to them?" But, in fact, children live lives that are always changing. It's the adults who have had the hardest time reconciling the new understanding of the solar system with what they remember from when they themselves were children.



Snakes in Astronomy. One of the Observatory's many multidisciplinary programs.



COC Executive Director Craig Niemi and Outreach Astronomer Dean Regas with renowned wildlife Artist John Ruthven and his wife Judith. "Eyes of the Night" was donated to the COC in 1998 by Mr. & Mrs. H. C Neihoff and now with the Observatory's restoration complete hangs proudly above Dean's desk.



Museums & Historic Sites of Greater Cincinnati

Settled in 1788, Cincinnati was considered the first American boomtown in the heart of the country, rivaling larger coastal cities in the early



nineteenth century in both size and wealth. As the city grew from canals and trains to streetcars and inclines, development sprawled across nearby hills, bluffs, and low ridges building a significant metropolitan area. The surrounding region, extending throughout southwestern Ohio, southeastern Indiana, and northern Kentucky, contains a wealth of treasures that trace the culture and history of the area.

Visitors can learn more about this region by visiting the many historical societies, museums, libraries, homes and historic sites that encapsulate the area's history. Today, this vital cultural legacy is preserved by the organizations collaborating in Museums & Historic Sites of Greater Cincinnati. We celebrate this rich, diverse area and we sincerely hope that visiting our sites will impart an appreciation of the Tri-State area's colorful natural and cultural history. The Cincinnati Observatory has taken on a major role with Executive Director Craig Niemi chairing the Professional Development Committee and serving on others. Membership in the group has connected the Observatory to students in Northern Kentucky University's Public History program as well as other students. We've also been introduced to a tremendous resource of local history experts and educators.

The Observatory has a terrific story to tell and our goals are to broaden our overall audience; expand our reach into K-12 social studies, history and geography curriculums; and offer professional development and enrichment for our volunteer museum educators.

A Sampling of MHSofGC Members:

- American Sign Museum
- Anderson Township Historical Society
- Behringer-Crawford Museum
- The Betts House Research Center
- Cincinnati Observatory Center
- Cincinnati Reds Hall of Fame & Museum
- Harriet Beecher Stowe House
- Heritage Village Museum
- Lloyd Library and Museum
- Mercantile Library
- Ohio Tobacco Museum
- Reds Hall of Fame and Museum
- Taft Museum of Art
- William Howard Taft Birthplace

For a complete listing of members and events visit: www.historicgreatercincinnati.org

EDUCATION

Offerings & Reports

Education Focus - Spring 2011

BY DEAN REGAS, OUTREACH ASTRONOMER

We're expecting great things for our education programs this year. First, in order to expand the outreach program, the Observatory has tried over the years to clone me. After all, I can only be in one place (maybe two places) at a time. And at long last, they have succeeded! I'm happy to welcome our Outreach Educator, Leo Sack to the staff. Leo began in astronomy education at the same place I did - Trailside Nature Center in Burnet Woods. He's been with us 9 months now and is fitting in wonderfully. And on some days we even wear matching colored shirts without coordinating ahead of time.

In addition to having two educators in the classrooms of the Tri-state, we received an added boost to our field trips. Through a grant from the Stillson Foundation, we are able to



Merwin Brownie Girl Scouts Troop, December 3, 2010



Outreach Educator,
Leo Sack



offer free buses to schools wanting to visit the Observatory. The ever-increasing fees for buses are a huge deterrent to teachers who wish to bring a class to the Observatory. Thanks to the grant, we are able to host field trips for schools that were not normally able to afford a visit to see the telescopes and buildings firsthand. Drop by this fall to see the buses (and very excited students) roll into the Observatory.

In the past, summer used to be our slowest time of the year. When schools were out, so was I. But over the past few years, summer programming has taken off. We will be hosting several summer camps and summer schools at the Observatory, visiting area libraries and nursing homes, hosting two weeks of summer camps, and two more weeks of graduate classes through Xavier University. So much for my summer vacation!

Our favorite planets are back again in 2011 for our annual Planet Days series. If you haven't seen Saturn yet, the rings are back and just awesome to see in the telescope. You can sign up to see the Lord of the Rings on our normal Thursday or Friday programs.

Maybe the most unique and popular of the Planet Days is for our nearest star: the Sun. Sunday Sun-day Sundae (SSS) combines safe solar viewing of sunspots and solar flares with the joy of eating ice cream sundaes at the Observatory. SSS occurred on May 15 and 22.

Upcoming special events include:

- June 10 - School's Out Open House
- August 13 - Picnic Under the Stars
- September 10 - ScopeOut Telescope Fest
- October 29 & November 5 - Jupiter Days

Scout Badge Nights will be:

- September 17, 8:30-10:30 pm - Cubs Boy Scouts
- October 15, 8:00-10:00 pm - Juniors Girl Scouts
- November 12, 6:00-8:00 pm - Brownies Girl Scouts



Scout Programming Expands

BY LEO SACK, OUTREACH EDUCATOR

The Observatory's education programming for Boy Scout and Girl Scout troops is growing, thanks to some new badge-earning program options for younger-aged scouts. The number of scouts served has jumped up dramatically as a result, from 264 scouts in the first quarter of last year to 620 scouts in the first quarter of this year.

In previous years, programs for scouts were limited to outreach presentations and basic tour-and-view field trip programs, similar to those done for school and homeschool groups. These are great programs and enjoyed by many, but they do not always meet a common scouting need: earning astronomy-themed merit badges, belt loops, or pins.

In February 2011, the Observatory began offering special programs geared to meet the astronomy badge or pin requirements for Brownie- and Junior-level Girl Scouts, and Cub-level Boy Scouts. These evening programs are 2 hours in length, and cover a variety of topics and hands-on activities in order to fully complete the requirements of the relevant badge or pin. This provides a longer and fuller experience, including constellation stargazing, moon phases, telescope pointing, and more, in addition to the traditional viewing through the telescopes (weather permitting, as always).

Because some scout troops are very small, we also established "Scout Badge Nights" on one Saturday evening per month, with each night devoted to a different demographic: Brownies, Juniors, and Cubs. These are "public" badge-earning programs that individual scouts and small troops can make reservations to attend, alongside other scouts of the same level. This way, a small troop can come without having to worry about paying a minimum group fee.

Scout Badge Nights have already been done for February, March, and April, with great success. Daytime programs are under consideration for the summer months.

For larger scout troops or troops that want other dates, badge-earning programs can be privately scheduled on Monday, Tuesday or Wednesday evenings.

More information is available on the new "Scout Programs" page of our website at: <http://cincinnatiobservatory.org/scoutprograms.html>.



COC Publicity

BY MARSIE NEWBOLD

This has been a stellar year publicity-wise for the Cincinnati Observatory! My efforts have been rewarded by dozens of appearances in the local and now international national media by our spokesperson/Outreach Astronomer Dean Regas. I was able to arrange for him to be guest host for the iconic PBS series “Star Gazer” that is seen in 90 cities throughout the United States. Please cross your fingers, toes and eyes that he be named the permanent host. This is a great chance for the Cincinnati Observatory to grow and share our one-of-a-kind educational outreach programs. I have created many opportunities and Dean has stepped up to the plate and hit the ball out of the park each time. I am in awe of his knowledge, talent and love of teaching.

At the beginning of each of the past three years that I have been working with the Observatory, I have set meetings with Dean and asked, “What would you have me do for the Observatory? What do you value?” Last year he said, “Mainstream radio.” So, I have arranged for him to become the “Official Astronomer” for the top rated 700WLW and he has appeared with Mike McConnell, Willie Cunningham and Jim Scott by my count, nearly a dozen times. He has



even appeared on “America’s Trucking Network” with Steve Sommers that is heard in every state in the U.S. and throughout Canada and Mexico. In addition, he has been on Country Radio on B105 and WARM98. It is safe to say that the Cincinnati Observatory is now not only “The Birthplace of American Astronomy,” but is now “The People’s Observatory.”

Dean has also appeared several dozen times on local television, on WXIX FOX19, WLW Channel 5, WKRC TV 12 and WCPO TV 9. There have been many feature stories in the Cincinnati

Enquirer, the Community Press papers and Cincinnati Magazine among others. (All this in addition to his long running (10+ years now!) “Sky Watch” column in the Cincinnati Enquirer.

Please, e-mail me at: marsotele@insightbb.com if you have any ideas for feature stories or anything else! As most of you know, I work as a professional publicist for many different types of businesses. The Cincinnati Observatory is my pro-bono account and I have grown to love the staff and many volunteers. Promoting the Cincinnati Observatory is one of my great passions and I hope to continue for many years. Thank you for allowing me to be a part of our wonderful, astronomical family!



2010 Future Galileos Recipients

Future Galileos Update

We’re off to a great start in year 3 of the Future Galileos program. This is a nationally recognized, NASA-funded program to award telescopes and train 100 educators around the Tri-State to give star parties. This year we selected 20 recipients from 74 applications from a variety of backgrounds who will work with a variety of age groups. The recipients must then attend three training sessions and deliver at least three public programs with the telescope prior to graduation on September 9.

The trainees for 2011 are:

- Kitti Hykes - Anderson YWCA Hamilton
- Matthew Archibald - Horizon Science Academy
- Karen Cody - Fernald Nature Preserve
- Angela Cox - St. Dominic
- Jane Daly - Ft. Thomas Schools
- Jennifer Easley - Winton Woods HS
- Casey Frazee - YWCA
- Lisa Frick - Nagel Middle School
- Jennifer Hogan - Individual
- Bill Hughett - Lockland High School
- Ann Jett - Seton High School
- Doug Kemper - Loveland Intermediate
- Gloria Lane - Gamble Montessori
- Jacqui Milliern - Mitchell, IN library, park, school
- Tracy Molly - Erlanger Schools
- Mellen Moors - Dressing Roger Bacon HS
- Tony Severyn - Nativity School
- Reuben Smith - Countryside YMCA
- David Whitehouse - Boone County Parks
- Laurie Wood - Mayfield Elementary



UC Communiversity

ADULT EDUCATION CLASSES

An easy and fun way to learn more about astronomy, and a host of other exciting topics, is to enroll in one of the many UC Communiversity classes. Communiversity courses offer a more in-depth examination of popular topics. For over a decade the Observatory has been teaming up with UC's Community Education Division to offer hands-on enrichment experiences for life-long learners. All the classes are held at the historic Cincinnati Observatory. If you miss a course it's likely to be offered again in the future so check with us often.



For more information and to register call 513-556-6932 or visit www.uc.edu/ce

Coming Up:

- Behind the Scenes at the Observatory - July 5th
- Optics: Inside a Telescope - August 10th
- Stargazing 101- August 23rd
- Comets & Meteors - August 29th

Previous Courses:

- Our Milky Way
- Searching for Other Earths
- Mysteries of the Universe
- Astronomy 101
- The Space Shuttle Era - Go at Throttle Up
- Spectacular Saturn
- Voyage Through the Universe
- Constellations and Mythology
- Jupiter, King of the Planets
- Where Are the Stars?
- Rocks from Space!
- Astronomy Without the Math
- Mars, the Red Planet

EVENTS & PROGRAMS

June 2	Member's Monthly Meeting
June 4	Stonelick Stargaze
June 5	FOTOKids Youth Astronomy Club (Sunday)
June 7	Volunteer Training Class
June 9, 23, 30	Astro Thursdays
June 10	School's Out! Open House
June 12 & 26	History Tours
June 17, 24	Astro Fridays
June 13-17	Xavier University Science Teacher Workshop
June 21	Observational Astronomy for Members
June 25	Stonelick Stargaze
July 2	FOTOKids Youth Astronomy Club (at Stonelick)
July 2	Stonelick Stargaze
July 5	Behind the Scenes (UC Communiversity)
July 6	Snakes in Mythology
July 7	Member's Monthly Meeting
July 8, 15, 22, 29	Astro Fridays
July 10 & 24	History Tours
July 11-14	Out-Of-This-World Summer Youth Camp (8-12 yrs.)
July 14, 21, 28	Astro Thursdays
August 1-4	Out-Of-This-World Summer Youth Camp (10-15 yrs.)
August 13	Picnic Under the Stars
September 9	Future Galileos Award Ceremony
September 10	ScopeOut Astronomy Fair
September 13	Ultimate Educators Expo @ the Cincinnati Zoo
October 10	Moon Day Monday

RECOGNITION & Appreciation

The Cincinnati Observatory offers our sincere appreciation to these individuals, families, businesses, and foundations who supported us in 2010:

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 Wade and Heather Yuellig
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 John Zehler
 Dale Zoller

*Mitchel Society
 Founding Members



Dear Mr. Dean,
 Thank you for coming to Sands and
 teaching us about the sun and seasons. I
 liked your presentation. My favorite part
 was when we saw the sun explosions. I
 also liked when we saw Beat Juice compared
 to the sun. One that I learned from
 you was that the sun had gravity.

Thank you letter from Sands Montessori

CINCINNATI OBSERVATORY

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