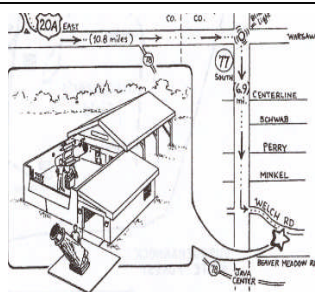


The Spectrum



Table of Contents

Caroline Herschel	1
College Of Fellows Meeting	1
BAA Officials	2
BAA Web Site	2
BAA Hot Line/Voice Mail	2
Meeting Location/Time	2
Spectrum Deadline	2
BAA Computer Managers	2
Presidents Message	2
Observatory News	2
BAA Annals	3
Upcoming BAA Meetings	3
BAA Member Reviews	
Astronomy Course	4



BAA Observatory (BMO)

BAA Articles From The Past

from the BAA archives maintained by Rowland Rupp --- first published Jan/Feb 1977

Caroline Herschel

Irene M. Rupp

While the inhabitants or the former British Colonies in America were founding a new country, a woman was launching an astronomical career in England. In 1782, Caroline Herschel was just beginning her independent studies of the heavens; today, she is known as the first woman astronomer of note. But this milestone in the history of women was not a foregone conclusion from the start. Like the history of our homeland, things might have been different. Caroline Lucretia Herschel, who was born March 16, 1750, in Hannover, Germany, originally studied violin and concert singing. She even worked as a dressmaker until 1772 when she went to England to join her brother, William, an organist at Bath. There she resumed her musical training and later performed in oratories.

William, eighteen years her senior, became interested in astronomy, built himself a telescope, and in 1781 discovered a new planet. He was rewarded by the appointment as private astronomer to King George III and the brother and sister thereupon abandoned their successful musical careers, moved to Slough near Windsor, and devoted themselves to astronomy. Caroline studied under her brother and became his assistant, receiving a salary in this position from George III, commencing in 1787. William made her a small telescope which she used for her own observations, discovering three nebulae in 1783 and eight comets between 1786 and 1797, five of them with undisputed priority.

Of her earlier years as William's assistant, Caroline later wrote: "My time was taken up with copying music and practicing, besides attendance on my brother when polishing his mirrors, since by way of keeping him alive I was constantly obliged to feed him by putting the victuals by bits into his mouth. This was once the case when, in order to finish a seven-foot mirror, he had not taken his hands from it for sixteen hours together. Generally I was obliged to read to him while he was at the turning-lathe or polishing mirrors, serving tea and supper without interrupting the work, and sometimes lending a hand. I became in time a useful member of the workshop ..."

Up until William's death in 1822, Caroline read his instruments and copied his observations, performed the necessary calculations, and then edited his papers and prepared his catalogues for publication. Her own "Index to Flamsteed's Observations of the Fixed Stars" with a list of Flamsteed's errata containing 561 stars omitted in the British Catalogue, was published in 1798 by the Royal Astronomical Society. After William's death she returned to Hannover and catalogued his observations, publishing in 1828 the "Reduction and Arrangement in the Form of a Catalogue in Zones of all the Star Clusters and Nebulae Observed by Sir William Herschel". For this she received the Gold Medal of the Royal Astronomical Society. In 1835 she was created an honorary member of that society.

Caroline, who never married, lived a long life, which was fortunate for she was awarded the Prussian gold medal in science on her 96th birthday and had the honor of entertaining the Crown Prince and Princess the following year. She died Jan 1my 9, 1848, two months before her 98th birthday, but received the posthumous honor in 1889 of having the asteroid LUCRETIA named after her. Caroline Herschel earned fame for herself as the first important woman astronomer and she set an example for the many women who have since made significant contributions in this field. Quite an achievement for an erstwhile musician, in a foreign country, long before women played an active role in the sciences!

COLLEGE OF FELLOWS MEETING

Rowland A. Rupp

The annual College of Fellows meeting will be held at my house on Tuesday, January 31, at 7:30 PM. Please give me a call at 839-1842 to let me know if you are or are not going to come. My address is 132 Burroughs Drive, Snyder.

BAA Officials	
<p><u>BAA OFFICERS</u> President – Peter Proulx 731-2808 Vice President – Ted Bistany 885-0003 Secretary – Joe Orzechowski 632-7091 Treasurer – Bev Orzechowski 632-7091</p> <p><u>AT LARGE DIRECTORS</u> Janice Gardner Tom Bakowski Richard Fusani</p> <p><u>COLLEGE OF FELLOWS</u> Rowland Rupp 839-1842</p> <p><u>OBSERVATORY DIRECTORS</u> Bill Aquino 731-9366 Paul Tabor 434-7148</p>	<p><u>MEMBERSHIP</u> Alan Friedman 881-4310</p> <p><u>ROBOTIC SCOPE PROJECT</u> Anthony Davoli</p> <p><u>STAR PARTIES</u> Bill Smith</p> <p><u>SPECTRUM STAFF</u> Editor: Gus Cenkner Jr. (Mailer) 625-8343</p> <p>Labels: Alan Friedman Columns: Edith Geiger Peter Proulx Rowland Rupp Paul Tabor Articles: various authors</p>

BAA Web Site	BAA Hot Line / Voice Mail Box
www.buffaloastronomy.com	716-629-3098
Location /Time Of Meetings	
<p>BAA meetings are held on the 2nd Friday of the month from September to June in the New Science Building on Buffalo State College Campus. Meetings start at 7:30 P.M., in the first floor auditorium near the entrance. See above web site for a map of the location. Non-members are encouraged to attend.</p>	
Spectrum Deadline	
<p>Articles for the next Spectrum will be due by: February 16, 2006</p>	
Managers Of BAA Computer Sites	
<u>BAA Web Site</u> Timothy Finucane	<u>E-Spectrum</u> * Timothy Finucane
<u>YAHOO E-Mail Group*</u> Dennis Hohman Mike O'Connor (* members only)	

President's Message

Peter Proulx

HAPPY HOLIDAYS FROM THE BAA BOARD OF DIRECTORS !!!

BAA Beaver Meadows And Lockport Remmick Observatory News

Bill Aquino

The 2005 public night season is now passed. Thanks to all the club members who helped out on the many public nights this year. Both observatories are now closed to the public for the winter months but checked-out club members do use the facilities year round.

There is not much official activity at the observatories during the winter months; next years public night schedule will be drawn up and submitted to the Board of Directors for approval. The four Observatory Co-Directors will be polled to see who will be returning to volunteer for next years season. The combination at BMO will be changed sometime in January. A permit will be requested from the Lockport Board of Education to continue with our use of the Remmick Observatory. Some light maintenance work is usually done at the facilities during the winter months: if volunteers are needed, a note is posted to the e-group. Other than these few items it should be pretty quiet, in regards to the observatories, until the spring.

(BAA Member Reviews Astronomy Course – continued from page 4)

I watched all 56 course lectures; each lecture is summarized in an accompanying booklet.

This type of course offers a number of real advantages:

* You can watch the lecture at your leisure	* You can watch any lecture(s) as many times as you want
* It's cheaper than taking a year long college level course	* Has spectacular graphics and animation
* It's possible to study charts and graphics by pausing the lecture or using slow play	* You don't have to take notes, so you can concentrate on listening to the lectures

I concluded that it is an excellent course for serious beginning amateur astronomers, as well as more experienced amateurs who want to fill-in-the-missing-gaps and get a better overall understanding of astronomy.

COURSE No.178, 56 LECTURES (45 MINUTES/LECTURE)

DVD	\$199.90 (REG. PRICE \$879.90)-SAVE \$680	TRANSCRIPT BOOKS WITH COURSE: \$80.00
VIDEOTAPE	\$159.90 (REG. PRICE \$699.90)-SAVE \$540	

5 YEARS AGO - Jack Mack was our speaker in January 2001. He didn't really speak, he showed astronomical videos, some of his own making, some made by others. In February, Bob Hughes and Carl Klingenschmitt joined forces to talk about the causes and effects of geomagnetic storms. Bob Titran was planning events for Astronomy Day, scheduled to be held May 5 at BMO. Dan Marcus wrote about an adventure he, Tom Bakowski and Frank Chalupka had while trying to observe the occultation of Mu Geminorum by an asteroid. After finally finding a viewing site relatively free of clouds, the hoped for event failed to materialize. Worse still, their return from West Virginia was impeded by a snow storm and a near accident. David Chesebrough, President of the Buffalo Museum of Science, announced that Kellogg Observatory would be closed to the public starting in January, citing safety and maintenance issues as the cause.

10 YEARS AGO - In January 1996 Gene Witkowski showed us lunar and planetary astrophotos he made with an inexpensive video camera. Since then others have adopted this approach, but Gene was a pioneer. Four or five members were to act as a panel at the February meeting, and the rest of us were invited to "Stump the Roundtable". The composition of this panel was not given.

Tom Bemus editorialized that sometimes experienced BAA members are too technical and over use acronyms when talking to novices, or when writing for *The Spectrum*. He suggested we avoid "intimidating and confusing" the newcomers. (Of course, talking down to someone isn't so hot either -RAR). Darwin Christy wrote about August Ferdinand Moebius, a nineteenth century mathematician and theoretical astronomer. He's the guy who invented that tricky twisted strip of paper named after him.

Two book reviews showed up in this *Spectrum*. One, submitted by Rowland Rupp, dealt with a book, sent to the BAA by author John A. Piret, entitled, How the Universe was Born. Like many books that re-invent astronomy and physics it was not well received. A similar fate awaited The Lawnchair Astronomer by Gerry Descoteaux, reviewed by Bill Smith. Bill couldn't figure out what audience the author intended to address. Apparently it didn't include Bill!

15 YEARS AGO - Dr. David Meisel, professor at Geneseo, was our speaker in January fifteen years ago. His topic was not given, but his talks were always entertaining. In February, past BAA member Tom Dessert spoke on astrophotography, his specialty. Tom was our first director at BMO, and played a significant role in its design and construction.

Edith Geiger's profile of BAA members highlighted David Bull. She also reported in her "Spy and Tell" column about the ambitious observing activities of Conrad Stolarski. Rowland Rupp wrote about different systems of time, including solar time, sidereal time, the sidereal year and the tropical year. Ed Lindberg, the BAA's late optical expert, wrote a scathing commentary in his "Instrument Notes" about the flawed mirror in the Hubble Space Telescope. He contended that tests used by amateurs would have revealed the problem, and he sharply criticized Perkin Elmer for creating a "technological disgrace", a nice phrase, in my opinion. Jim Dow's obituary appeared in this *Spectrum*. As an enthused teenager Jim helped to organize the BAA following World War II. His mother, Jane Dow, was a frequent benefactress of our association.

25 YEARS AGO - I don't know who spoke in January 1981; the speaker was to be announced at the December meeting. In February we heard from Ernst Both on "Galaxies". President Al Kolodziejczak proposed some future projects: an additional observatory location, upgrading BMO's 12-inch telescope, mini-courses for members given by advanced members, and a library. The Study Section planned to have Fred Price lead a discussion on cratering in the solar system. Editor Darwin Christy complained that the response to a questionnaire "is below expectations", apparently an inevitable outcome of most BAA questionnaires.

Jim Machowski wrote briefly on Mercury, and Edith Geiger wrote a profile on Carl Milazzo. "A Journey to a Distant Pea" was an anonymous contribution in which the "distant pea" was Alpha Centauri, and the article attempted to convey the enormous distance separating us from it. A couple of poems by Al Riccuti appeared as well.

35 YEARS AGO - The January 1971 *Spectrum* consisted on one and a half pages. The Lindbergs' talk of clocks and Edith Geiger's Christmas presentation were rescheduled for January because the December meeting was canceled due to a snow storm.

The February issue had four pages, *The Spectrum* was published monthly back then. The BAA's Dr. Fred West of Buffalo State was to speak, but his topic wasn't given. Warren Steinberg reported on the activities of the Instrument Section where some telescopes were tested. Names from the past like Rudy Buecking, Bill Parker and Rudy Neuhauser appeared. Darwin Christy reported that, in 173 nights in the last year, the sky at his Honey-House observatory in Tonawanda was clouded out. Kurt Erland wrote an imaginary interview with Eratosthenes, the third century BC Greek astronomer who first measured the circumference of the Earth.

Upcoming BAA Meetings

Peter Proulx

January 6 -- At Williamsville North High School

Club member Mark Percy will have a special presentation for BAA members at the beginning of our regular meeting. The special BAA Planetarium show will begin at 7:30pm. Williamsville North is located at 1595 Hopkins Rd., Williamsville. This will be held in lieu of our regular monthly meeting at Buffalo State.

February 10 -- Puckett Supernova Search -- Mike O'Connor

BAA member Mike O'Connor and Tim Puckett recently announced their discovery of a supernova. Mike will discuss this discovery and their work on searching for supernovae.

March 11 -- Dinner Meeting And Talk By Jack Newton ***

Jack Newton is now an internationally recognized amateur astronomer and astro-imager. He has pioneered the field of amateur CCD photography, especially the development of high resolution tri-color imaging. Jack's photographs are well-known to readers of *Astronomy*, *Sky & Telescope*, and *Sky News* magazines. He is also a frequent contributor to other magazines, calendars and newspapers around the globe. His work has been featured in such publications as Newsweek, the Canadian Geographic Magazine, Photo Life, and The Audubon Society Field Guide to the Night Sky. He has also authored or co-authored a number of astronomy books. *** **NOTE: meeting changed from March 10 to March 11**

BAA Member Reviews Astronomy Course

Gus Cenker

I recently reviewed a DVD astronomy course that I purchased from The Teaching Company (1-800-832-2412). The course, "Understanding The Universe: An Introduction To Astronomy" was presented by Professor Ales Filippenko, a physics professor and professional astronomer at the University of California at Berkeley. The content of the course is summarized below.

Part I Lecture Titles -- Understanding the Universe: An Introduction to Astronomy

- | | | |
|---|---|--|
| 1 A Grand Tour of the Cosmos | 15 Distant Worlds and Solar System Debris | 28 The Birth and Life of Galaxies |
| 2 Journey Through Space and Time | 16 Comets and Catastrophic Collisions | 29 Quasars--Cosmic Powerhouses |
| 3 Light--The Supreme Informant | 17 Distant Suns | 30 In the Belly of the Beast |
| 4 The Fingerprints of Atoms | 18 Social stars--Binaries and Clusters | 31 Are We Alone? The Search Begins |
| 5 Tools of the Trade | 19 Nature's Nuclear Reactors | 32 Communicating with Extraterrestrials |
| 6 Space Telescopes and the Celestial Sphere | 20 The Fate of Our Sun | 33 The Expansion of the Universe |
| 7 Our sun--The Nearest Star | 21 Exploding stars--Celestial Fireworks | 34 The Age of the Universe |
| 8 Lunar Phases and Glorious Eclipses | 22 The Corpses of Massive Stars | 35 The Geometry and Fate of the Universe |
| 9 The Early History of Astronomy | 23 Hearts of Darkness | 36 Einstein's Biggest Blunder? |
| 10 The Copernican Revolution | 24 The Quest for Black Holes | 37 Echoes of the Big Bang |
| 11 On the Shoulders of Giants | 25 Starting at Home--The Milky Way | 38 In the Beginning |
| 12 One Small step--The Earth and Moon | 26 One Giant Leap--Other Galaxies | 39 The Ultimate Free Lunch? |
| 13 Paradise Lost-Venus and Mars | 27 The Dark Side of Matter | 40 A Universe of Universes |
| 14 Planetary Behemoths--Jupiter and Saturn | | |

Part II Lecture Titles -- Understanding the Universe: Whats New In Astronomy, 2003

- | | | |
|---|---|--|
| 1 From Dawn to Dusk | 7 Gamma Ray Bursts and the Birth of Black Holes | 12 The Accelerating Expansion of the Universe |
| 2 Exploring the Night Sky | 8 Observational Evidence for Black Holes | 13 The Stuff of the Cosmos |
| 3 Recent Discoveries in Our Solar System | 9 Einstein's Relativity | 14 Dark Energy--May the Force Be With You |
| 4 Other Worlds Galore! | 10 Cosmology and Cosmic Expansion | 15 Theories of Everything, and Hidden Dimensions |
| 5 The Formation and Evolution of Stars | 11 The Birth and Evolution of Galaxies | 16 Our Universe, One of Many? |
| 6 Supernovae--Catastrophic Stellar Explosions | | |

(continued on page 2)

Buffalo Astronomical Association Newsletter

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Pendleton, New York
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