

THE SPECTRUM

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Member Autobiography

CARL MILAZZO from BUFFALO, NEW YORK - an autobiography

Over the past year or two, several amateurs have asked me what I have done astronomically, for the public, our club, and as an amateur astronomer. This is understandable because it has been 21 years since my profile was written up in the *Spectrum* by Edith Geiger.

In 1969 I became an amateur astronomer, by learning to identify the different seas and craters on the moon, using binoculars. Later I joined the Williamsville North high school astronomy club. Over the years, I have been a member of seven astronomy clubs, in which I have helped out as co-editor, observatory director, Vice President, President, board member-at-large, and have served on many committees. In 1971, I joined the Buffalo club, and that very first year I volunteered to help with repairs with the club's observatory dome in the town of Newstead.

About three dozen of my astrophotos have been published in *Sky and Telescope* and *Astronomy* magazines. They have also appeared in Richard Berry's astro-calendar, in the Buffalo club calendar, and several times on TV.

Awards have been presented to me at Starfest for astro-photography, and at the

Syracuse Seminar for my observing skills.

I have volunteered to do public nights for 11 years at Beaver Meadow, and was the observatory director for a little over a year. Back then public nights were held every week, all year long, with great success. For four months in 1975 I helped construct the club's Beaver Meadow observatory, and years later helped with its repairs. Besides the club observatory, I have done public nights at over a dozen locations in the region. For eight years, I organized the club starparties. Most years, there were ten per summer. I have taught observational astronomy and astrophotography to several groups, including our club members. I have given over fifty short and long talks to astronomy clubs, conventions, school groups, colleges, the Buffalo Science Museum, church groups, campgrounds, parks, and radio talk shows. About half of the years since 1973, I have helped out with Astronomy Day activities.

I have written about a hundred articles for astronomy club newsletters in the U.S. and Canada, on a variety of topics, including practical subjects that have been overlooked over time.

I have designed and improved several 'scopes and observatories, and closely
(Continued on page 3)

More About Eratosthenes

After writing this month's BAA annuals, I re-read Darwin Christy's account in the November-December 1991 *Spectrum* about the Greek astronomer Eratosthenes, born in 276 BC, who discovered the size of the Earth. Darwin mentioned this along with Eratosthenes's many other accomplishments in the fields of mathematics, history and geography. However, Darwin didn't explain how Eratosthenes actually made the measurement, which I think is pretty straightforward. It's so straightforward that I present it in my astronomy classes, unfortunately with only limited success. I hope I'll have more success here.

Eratosthenes was born in Cyrene in Egypt, which was then part of the Greek

world. Cyrene is the way Darwin spelled it. I've seen it spelled Syrene; today it's known as Aswan. In any case, it was known that on the day of the summer solstice, when the sun is, as far north as it ever gets, a vertical stick at Cyrene casts no shadow at high noon. In other words, Cyrene is right on the Tropic of Cancer, and so the sun is directly overhead at noon on the first day of summer in the northern hemisphere.

Eratosthenes had studied in Alexandria and knew that a vertical stick planted there *did* cast a shadow on that same date because Alexandria is north of Cyrene. He measured the length of the shadow at noon

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SPECTRUM SUBMISSIONS

Deadline for next issue Dec. 15

MS Word or WordPerfect or
typed submissions.

President's Column

Attention: Board Meeting dates have been changed due to conflicting schedules. They will now be on the first Wednesday of even months. The next one will be December 5, and the following will be on February 6, unless we need additional meeting to facilitate club business.

At the last board meeting the board voted tentative approval for the robotic observatory using the clubs LX200 10" and setting it permanently up for CCD camera use, with the provision that Beaver Meadow gives us approval at their board meeting October 17. If we get the go ahead, Mike O'Connor will spearhead this 3 step project. 1st step will be to build the 6'X6' domed observatory structure. The plan is to get it up before winter sets in and we can't do concrete work. We should have enough monies already pledged to do this. The second step which should immediately following, will be to raise money and purchase the camera, equipment and the necessary extras to run all the equipment from inside the warming room. Step 3 will be fund raising so we can purchase what we need to get the Observatory up and running totally robotically from home with out going out there! Again keep in mind that all this hinges on approval from Beaver Meadow. Tristan Dilapo and Mike O'Connor have been happily imaging super novas, asteroids and anything else that has tickled their fancy with minimal muss and fuss! using Tristan's robotic LX200 12". This goes on anytime it is clear, full moon or not! After using the Cookbook camera and the 12" I can't wait for the ease of use when the new robotic unit to come on line. The club is still planning on partnering with UB on a robotic scope, but it may be several years before this project comes to fruition. In the mean time we can practice our camera and robotic telescope skills on our own scope so we can take full advantage of a new larger system as soon as it becomes available. Another development on the robotic front, the Buffalo Museum of Science is contemplating setting up a robotic scope that schools can use in the daytime to watch the Sun, Moon and some of the brighter plants using video cameras! Stay tuned for further information, as they are in the thinking stage right now and may need some help

Spectrum: As you know by now Jamie Seibert is now the new Spectrum Editor. Please help him out and submit articles. If you are trying to reach him his phone # is incorrect in the membership directory. It is 689-3349, and his E-mail is jseibert@buffalo.edu.

Bob Titran has volunteered to organize next years Astronomy Day, if you would like to help please contact him. One of his goals is to improve on the public's participation.

—Daniel Marcus—

Meeting Notice

The BAA's November 9, 2001 meeting will feature member Joe Orzechowski who will try to help us all comprehend the "Scale of the Universe". His talk is really a tour of the universe, beginning on Earth, moving out to the Moon, the planets, and the stars and beyond. Along the way Joe will be describing the objects encountered and how far away they are. Since some members may already have heard this presentation at a BMO public night or elsewhere, Joe has promised to add a few new items to keep things interesting.

Our annual Holiday Party meeting will be held on December 14, 2001. First, Edith Geiger will present her (unusual?) explanations for some of the members' activities and antics that she has captured on film during the past year. Please remember to bring a sense of humor to this meeting; it's all just good clean fun. A holiday gathering featuring beverages and snacks will follow the slide show. (The cookies alone are always worth the trip.) For those of you who end up playing leading roles in Edith's slide show, the party will be a great way to celebrate your new found stardom.

The BAA meets on the second Friday of each month from September through June (except the March dinner meeting) at 7:30pm in the New Science Building, Room NS213 on the Buffalo State College campus. Visitors are always welcome at any of our meetings.

—Joe Orzechowski—

MEETING CANCELLATION POLICY

If, for any reason, (most likely snow or ice storms), there might be cause for cancellation of the meetings of the B.A.A., tune your radio to either WBEN (930) or WGR (550). Also if Buffalo State College has been closed due to inclement weather, so will the meeting of the B.A.A be cancelled.

BEAVER MEADOW TELEPHONE

The telephone at Beaver Meadow, 716-457-3104, is for emergency use only at no cost. Local calls may be placed for a small charge - see the collection

box by the phone. This phone cannot make long distance calls.

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(Carl Milazzo Continued from page 1)

examined thousands of amateur and professional 'scopes, both homemade and commercial. I have made a 26-inch Dobsonian, and three 6-inch Dobsonians.

I have invented several astronomical items, such as a very compact portable observatory, several telescope designs, a polaris sundial, the polaris hexagon, a binocular mount and a special star hopping technique (*Sky and Telescope*, Nov. 92, pg. 578). I also came up with the technique of combining the portable barn door tracking mount, aiming at the horizon, using both a fast film and fast f-stop, along with fairly short exposures, to create a scenic image.

My suggestions have enriched the field of active amateur astronomy, such as the formation of the Martz Astronomy Club of Frewsburg, N.Y., from my visit with Marshal Martz in 1977. I created the first flyer for the Beaver Meadow Observatory in 1978, and started the first astronomy banquet for the Buffalo Club in May 1982. It was my idea for the Buffalo club to have a large Dobsonian 'scope in 1984, and I sparked the idea of having piers next to the club observatory in 1989. I created a list of all the club benefits and a list of club mentors in 1999. The idea of a club robotic observatory in 2000. In the late 1970s, I started the tradition of giving short observation reports at meetings. In 1984 I compiled a list of 78 colorful double stars and started the aurora alert phone tree. I have organized several field trips over the past 30 years to several regional observatories and planetariums. My first astronomy conven-

tion was Stellafane in 1979, and my first Starfest was in 1987, and I have been encouraging all amateur astronomers to attend conventions, and have helped out with carpooling and helpful advice. For both these conventions, I made the suggestion of having a bed and breakfast list, because all the motels are booked solid each year. The tradition of cloudy night star wars I started at Stellfane in 1984, and latter at Starfest.

I have improved the quality of club meetings and activities by joining committees, such as the speaker, Astronomy Day, survey, and round-table discussions.

When the newer members were struggling with observing, choosing and using equipment, astro-photography, where to observe, or the cold weather, I would offer some practical advice.

Over the past 32 years as an amateur astronomer, I have learned largely from first-hand experience, but also from reading over 200 different club newsletters, several magazines, numerous books, and attending astro-conventions set up by nine different organizations.

My observing logbook contains a variety of objects from many locations and 'scope sizes, containing detailed descriptions and some simple drawings, as viewed from 5- to 30-inch telescopes. By 1973, I finished the Messier object list and by now I have seen a total of 2,600 deep sky objects. For eleven years, I made drawings each week of sunspot activity. I have come up with simple ways to locate all 65 constellations visible from our latitude. I have

witnessed many splendid meteors as bright as the full moon, some leaving a glowing train lasting for as long as ten minutes, and even a daylight fireball. One steady night in August 1971, I was able to use 700 power on Mars, which was at its best opposition in years. I have witnessed many brilliant aurorae, some having every color in the rainbow, covering the entire sky and lasting the whole night, while simultaneously the Perseid meteor shower was at its peak. I have viewed five truly great comets, the first being Bennet in 1970, with comet Lin-ea-r this summer being my 47th comet.

The cold weather doesn't prevent me from going outdoors and doing astronomy. In fact, winter is my favorite time of the year, because it becomes dark early in the evening and the nights are so much longer. My coldest night was in February 1978, which was -25 °F (-33 °C).

I search for beautiful landscapes to photograph at night, and by serendipity I have found some of the darkest and peaceful high-quality places, that have been forgotten (fortunately) by these rapidly changing times.

————— CARL MILAZZO —————

(Eratosthenes Continued from page 1)

and, with a little trigonometry, a discipline already well advanced in Greek mathematics, he determined that the sun's angle was 7 degrees, 12 minutes of arc. This corresponds to 7.2 degrees which, when divided into the 360 degrees of a full circle comes to exactly 50. Hence the circumference of the Earth must be 50 times the distance from Cyrene to Alexandria, provided the two cities are on the same meridian, that is, Alexandria is due north of Cyrene.

So how did Eratosthenes know the distance and the bearing? The measurement of the former is generally believed to result from professional runners carrying messages who surely knew the distance. I've never seen an explanation of how they knew the bearing, but I'll offer my own suggestion. I would imagine these messengers might run at night to escape the heat of the desert sun during the day. If so, they may well have used the North Star as a handy direction indicator for this particular route.

Eratosthenes came up with a circumference for the Earth that is about one percent short of the approximately 24,900 miles we know today. While some historians think this result is too good for those times, most credit Eratosthenes with this remarkable discovery. It's been pointed out that his sources of error are consistent with his one percent accuracy in the final result. These sources are: Cyrene is actually a little north of the Tropic of Cancer, Alexandria is not quite due north of Cyrene and the length of the unit of measurement used by the Greeks, the stade, is somewhat uncertain.

Well, I think he did it. It's a good reminder that those Greeks living before the birth of Christ not only knew the Earth was a sphere, they figured out how big it was!

————— Rowland A. Rupp —————

Joint Meeting with IEE

The BAA and the Institute of Electrical and Electronic Engineers held a joint dinner meeting at the Classics V restaurant on Thursday, October 4, 2001. The guest speaker was Dr. George Swenson, University of Illinois Professor Emeritus of electrical engineering and astronomy. Dr. Swenson's topic was radio astronomy, in which he briefly presented its history, and then explained the use of interferometry to make radio maps of the sky. He described how one used several antennas, widely separated; to obtain far higher resolution than can be obtained with optical telescopes. Detailed mapping is achieved by choosing antenna sites in a grid that avoids repetition of spacing and using the rotation of the Earth to provide varying lengths of baselines. The output data from the various antenna pairs are combined, and are then reduced by Fourier transforms to map radio intensity.

Dr. Swenson cited a study of the nearly edge-on galaxy M106 in which emissions from clouds of water masers circling a central black hole were used to determine by interferometry the distance to the object. The mass of the black hole could then also be found thanks to the application of Kepler's Laws. A new value for the Hubble Constant was obtained by equating distance with recession velocity.

Carl Klingenschmitt, member of the IEEE and the BAA, and Rowland Rupp, both of whom had contacted Dr. Swenson earlier in regard to interstellar radio communication, arranged Dr. Swenson's visit. About a dozen BAA members attended the dinner. The speaker stayed afterwards to discuss his subject further with them.

Membership Corner

Time to renew your membership

Over 70% of our current members have sent in their renewal dues for 2001-2002. Are you one of the 30% who have not yet renewed? Why delay ... send in your renewal today! We all know the advantages that a membership in the BAA offers. From the "Spectrum" delivered to your door to use of the club observatory, monthly meetings/lectures and summer star parties to discounted "astronomy" magazine subscriptions and the many club-sponsored activities throughout the year ... they're all dependent on club dues to make them a reality. The renewal grace period is rapidly drawing to a close, so let's make it 100%.

We'd like to welcome all the new members who have joined the club this fall. Alan Friedman and myself are available, anytime, to answer questions you might have about the BAA. One of the best ways to get the most out of your new membership and meet other members is to get involved with club projects. The BAA is currently updating the 12" reflector at our observatory (Bill Aquino: 549-4700) and building a remote controlled, robotic 10"SCT (Mike O'Connor: 662-7456). You don't need to be an expert in astronomy to help out in either of these projects, so contact a project leader and volunteer your help. They'll be glad to hear from you.

Membership dues are: **\$20.00/individual - \$25.00/family - \$15.00/student & seniors**. Dues should only be sent to Alan Friedman or Tristan DiLapo. Payment by Checks or Money Order, please. Magazine subscriptions can also be included in your dues payment. **Sky & Telescope: \$29.95 - Astronomy: \$29.00**

Membership Contacts:

Alan Friedman / 881-4310 / alanfgag@aol.com

Observatory News

The purpose of this regular column will be to keep the membership informed of activities at the clubs observatory and provide a forum for recognizing those members who make special contributions to the upkeep, operation, and improvement of BMO. I will do my best to get information into each issue of the Spectrum and keep everyone as well informed as possible. The observatory is a key resource of your BAA membership and is available to help meet the astronomical needs of our members. **USE YOUR OBSERVATORY**, that's why you have one. Neil and I are always looking for feedback, great ideas, and comments, so if you have any get in touch with us. I can be reached by phone on rare occasions at 731-9366 or on the clubs egroupp message board. Neil also checks the message board daily so posted messages will get through to one of us.
Bill Aquino

2001 Public Night Season

By the time this issue of the Spectrum is published the "2001 public night" season at BMO will have come to a successful close. The observatory remains open however, to "checked out" members throughout the winter

months. Public nights are scheduled for the first and third Saturday nights from April through October. This past year there were 14 public night events at BMO most of which were well "staffed" by club volunteers. **THANK YOU**, to the many club members who participated this year especially the scheduled "guest speakers". I hope all of the guest speakers enjoyed giving their talks, as much as the public and your fellow members enjoyed receiving them. These talks show the BAA at its best, and are a popular and important part of every public night.

A Special Thank You

Needs to be extended to several members listed below for making recent contributions to BMO. Generous donations from the membership of both their time and resources, is what makes BMO such a dynamic and effective facility.

Neil Dennis has recently donated and installed a south facing wall-mounted sundial. This incredible dial is mounted on the south exterior wall of the observatory next to the

garage door. It provides a wonderful and useful daytime astronomical display for passers-bys. The meadow is a very busy place during the daylight hours with quite a few visitors and hikers passing by the observatory building. The dial is sealed in a watertight frame and includes instructions on how to use it as well as the clubs logo. It's both a very attractive and durable display. The previous sundial we had (also graciously donated) was a bit fragile (the gnome was broken off by the children accidentally) and it was mounted on one of the piers, which made it nearly impossible for the small children to see. Neil's unique design solves both of these problems.

Neil has also donated and installed a matching piece of Formica counter-top to extend the counter in the lecture room from wall to wall. This provided additional "flat surface" in the room, which was so desperately needed, and straightened up the clutter in the corner from the appliances and television display. It's one of those subtle improvements that make a really big difference in the usefulness of the room.

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(Observatory Continued from page 4)

Mike O'Connor has recently donated a set of catalogs to BMO including an astrometric reference catalog and a chart catalog of the Messier objects. The importance of having catalogs available for use at an astronomical observatory can't be overstated. The downloaded astrometric catalog (6.5 gigabytes) is the complete 13 CD collection of the USNO A2.0 catalog. This catalog is the most comprehensive astrometric catalog in the world, containing the accurate coordinates of millions of stars and is a very welcome and important addition to the BMO reference library (reference items are those which can not be borrowed). It took Mike several days to download the complete catalog and burn the information to CD's. There are not many amateur observatories around with this catalog in its library.

In addition, Mike has downloaded a complete set of charts for finding the Messier

objects using a Telrad finder. This will be very useful to members while observing as well as on public nights. Mike took the time to laminate each chart and bound them into a single volume; this is also a reference item.

Anthony Davoli has recently donated a pier "adapter tube" which allows the clubs 6" refractor to be mounted on one of the piers located behind the observatory. This generous donation has allowed us to get the clubs 6" refractor out of storage, where it has been laying idle for the last few years, and into useful service. This telescope is popular among the volunteers and especially the public during public night activities. Being able to place the scope on the pier has provided the additional stability (a lot less jitters) that is lacking when using the scopes wooden tripod.

Spy and Tell

Bud and Ella Abate spent a wonderful summer camping and relaxing in Franklinville, and going back and forth to their home on Grand Island occasionally. They have two sons, Scott and Mark, and a daughter, Leisa. Bud has a thriving business run from his home, with labels produced in Lockport. If you need any kind of label, Bud is the man to see. Ella works for State Farm Insurance.

The first weekend in October, Bob and Laurie Titran went to Toronto to see the baseball game between the Toronto Blue Jays and the Cleveland Indians. At a baseball game in Cleveland, Bob and Laurie were seen on TV enjoying the game. Bob is to be congratulated on losing 98 pounds in 16 months. His formula for weight loss is "eat less, exercise more." He recommends walking and hiking as good forms of exercise. If you're looking for Bob, he's the one in the baggy clothes.

Carl Milazzo was invited to give a talk on October 15 at the club meeting of the Bert Miller Society, a nature organization similar to the Audubon Society. They meet in a building near Pt. Abino, 8 miles west of the Peace Bridge, along the shores of Lake Erie in Canada. His talk was on the constellations and constellation hopping. He was invited to return on October 20 to set up a telescope on club property and show them the constellations and deep-sky objects.

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BAA Annuals

5 YEARS AGO - Joe Orzechowski was our speaker in November 1996. His topic, in commemoration of the 400th anniversary of the discovery of the variability of Mira, was "Long Period Variable Stars", Wine, cheese and Edith Geiger were on the menu for our 1996 Christmas party. Edith gave us yet another look at the yearlong antics of the BAA membership. Speaking of Edith, she wrote a profile of Bob Titran (and a little bit about Laurie too) for *The Spectrum*.

Joe Orzechowski, our Membership Director, announced that we had some new members join the association. Among them was Allen Goodrich who promptly submitted an article in which he presented his own theory of mass energy. He cited the behavior of the tides as an example, showing how his theory provides a more accurate prediction of their occurrence than does the conventional gravitation theory. While on the subject of surprising revelations, Rowland Rupp proved that two equals one, a fact long known to a wide range of professionals including economists, politicians and lawyers.

Bill Smith wrote two book reviews. Well, not really book reviews, they were really Observer Guide reviews: one from *Astronomy* magazine, the other from *Sky & Telescope*. Bill played it safe - he concluded both were good. Bob Titran submitted the single observation report.

10 YEARS AGO - Dr. Gil Brink spoke on "Cosmic Confusion" at our November 1991 meeting. One wonders how he could cover such an extensive topic in one evening. For December we heard from Tom Nigrelli who gave us a survey of "December Skies". He was followed by Joel Stuckey who reported on the activities of the CCD Committee. CCDs were

just becoming common amateur astronomical tools at that time. Of course, we wound up with Edith's "Candid Camera". Tom wrote an appeal in *The Spectrum* to begin raising funds for our 20-inch telescope.

Bill Smith offered a suggestion on how to enhance the colors of stars. He suggested that stopping down your telescope with an off-center mask of about 1.5 inches in diameter would reduce twinkling and diffraction. Viewing the Airy disc instead of the image of the star itself will intensify the sense of color. Bill wrote an observation report on his binocular views of Messier objects made during a horseback riding expedition in Idaho.

Darwin Christy wrote a short article on the ancient Greek astronomer Eratosthenes, who is credited with being first to figure out the size of the Earth. Ed Lindberg's *Instrument Notes* describes how to test telescope optics, and what to do about certain problems, particularly a procedure for quickly collimating reflectors.

15 YEARS AGO - Art Gielow, Buffalo State's planetarium director, treated us to "Sky Watchers of Ancient Mexico" at our November 1986 meeting. Next month Observatory Director John Yerger, a well-known area artist, gave us some hints on sketching astronomical subjects. And again there was Edith.

Paul Noye showed us that "Two Plus Two Do Not Always Equal Four". Sounds a little like my two equals one article a decade later, except Paul really meant it. He was referring to the addition of velocities for objects traveling near the speed of light. Gene

(Continued on page 6)

(BAA Annuals Continued from page 5)

Witkowski was the subject of Edith Geiger's *Profile*. Kimberly Dow, daughter of one of our association's founders, Jim Dow, was graduating from college in astrophysics, as Jim had done years before while a member of the BAA. We had observation reports from Michael Idem, Carl Milazzo and Darwin Christy.

25 YEARS AGO - Dr. Donald Botteron was our guest speaker in November 1977. His topic, "Origins of Life" was declared "subject to change" depending on the outcome of the Viking mission to Mars. No change was needed - yet! For December, Joe Provato reported on his recent observations of Jupiter and Saturn. Later that evening, Edith Geiger did her thing.

Observatory Director Tom Dessert announced that we had a 35mm camera and free film available at BMO for our astrophotographers, and that Bill Deazly had provided an illuminated reticle for the micro-magnifier built by Bob Mayer. (The camera later disappeared.) Tom also presented a procedure for access to the 12 1/2-inch telescope in the event that several members wanted to use the instrument simultaneously.

Dr. Seville Chapman's obituary noted his distinguished scientific career including chief scientist at Calspan and his appoint-

ment as director of the New York State Assembly's scientific staff. A BAA member, he had aided us in establishing Newstead Observatory on Calspan grounds.

35 YEARS AGO - At our November 1966 meeting, held at the Buffalo Museum of Science, President Ron Clippinger spoke on "The Golden Age of Amateur Astronomy". In December, Olga Lindberg narrated her slide show "Eclipse of 1965 in Thailand". Oh yes, Edith followed.

Carl Kalweit concluded an article he had started in the October *Spectrum* in which he discussed extraterrestrial civilizations. He specifically addressed Fermi's question "Where are they?". His conclusion was the "zoo theory" - they are here, but they just watch us. They avoid contact so they will not interfere with our development. In the December issue Ron Clippinger supported Carl's conclusion, and speculated further that some UFO sightings may be of aliens surreptitiously observing us. He suggested that it is accidental that we observe them at all because, although the aliens intend to remain undetected, they have occasional lapses. Seems to me they're having an awful lot of them, if you believe these UFO reports.

————Rowland A. Rupp————

(Spy and Tell Continued from page 5)

Ann MacGill and Darwin Christy reroofed the Christy observatory, finishing the project in mid-October. Ann was a banker at First Federal Bank for 30 years, retiring in '93. She is a very active gardener and a member of the Garden Club of Tonawanda. This lovely lady is very involved in the Salem United Church of Christ, also in Tonawanda, where she is: chairman of the Altar committee; on the Board of Trustees; the committee for Bereavement; the Ministry Board, and the Christian Education Committee. Ann taught Sunday School for 35 years, retiring in June 2000. She is the mother of 2 daughters and 1 son, and is raising 2 granddaughters who are always a joy.

The 40th annual Quaker Arts Festival was held September 15-16 on the Middle School Campus in Orchard Park, where around 50,000 patrons attended this well-known event, and about 400 artisans displayed their crafts. Congratulations to Bill Smith, who won Second Place in the photography category.

Ken and Judy Matthews are very busy folks. Ken works as an Orderly at the Erie County Home. One of his hobbies is woodworking, which he finds immensely gratifying. He makes lawn furniture, and he now has finished all the music boxes for Christmas. Judy works at Moog Inc. in Elma. She is a fine tennis player, belonging to the United States Tennis Association with a 3.5. Ken and Judy have 2 daughters, Dawn and Jean, and 3 grandchildren.

Steve Oross enjoys the sunny side of life. His unbounded sense of humor acts as a tonic to those around him. He worked for many years for IBM, fixing computers for top businesses such as M&T Bank, HSBC Bank, City Corp., Bethlehem Steel, Roswell Park and U.B. Since retiring, Steve has spent a great deal of time traveling around the country enjoying its wonders and visiting relatives. He has been to Pennsylvania, Delaware, Maryland, Ohio, Virginia, West Virginia, Connecticut, Massachusetts, New Hampshire, Maine, North and South Carolina, Tennessee and Louisiana, to name a few. Steve has a creative mind full of ideas. His advice to all who wish to live a happy long life: "never run out of things to do."

Gene Witkowski, BAA past president, reports that a new type of camera is coming out and it involves a new technology called CMOS (pronounced sea-moss). The resolution is 2056 x 1560, and it runs at full video rates of 30 frames per second, and goes into a computer. The chip has been engineered for various applications, including digital still camera and HDTV camcorders (high definition TV). This technology will replace ccd chips currently being used. The biggest advantage is that the images contain detail, and look more like real photographs. Gene is getting one of the first cameras, and will be giving feedback to the manufacturer. Compared to the current cameras which might have 9 micron pixels, this camera has 6.7 times the number of pixels in the same 1/2" chip. This camera has 3.3 micron pixels. This system is ideal for lunar and planetary imaging.

Happy Holidays!

Edith L. Geiger



BUFFALO ASTRONOMICAL ASSOCIATION SWEATSHIRTS & T-SHIRTS ORDER FORM

T-Shirts Small through X Large - \$15.00 Each
Sweatshirts Small through X Large - \$30.00 Each

To Order, Contact Gene Belstraz

Phone: 716-773-5348

Fax: 716-773-0961

E-Mail: genebelstr@aol.com

OR

Mail the following order form to:

Gene Belstraz

3657 East River Road

Grand Island, NY 14072

Type Shirt (T/Sweat)	Size (M/L/XL)	Quantity	PriceTotal
			Total_____
Name _____			
Address _____			
Phone _____			
Form of Payment _____			
Date _____		Signature _____	

Meetings

BAA meetings are held on the 2nd Friday of the month from September to June in the New Science Building on the Buffalo State College Campus. Meetings start at 7:30 pm and all members and guest are encouraged to attend.

Note From The Editor

Hello,
My name is Jamie Seibert. As some of you may or may not know I am the new editor of "The Spectrum". Before I introduce myself, I'd like to thank Tim for all the hard work he has done in the past. As I'm finding out this isn't an easy job, and we owe a lot to the past editors. I joined the BAA about a year ago, after I had just moved to Buffalo from the Cincinnati Ohio area. I got into astronomy around a year and a half ago. I enjoy doing astrophotography and all types of observing. I'm still new to the Astronomy game, but I am learning. That is why I volunteered to be the Editor of our newsletter. I feel that this will be a great way to get involved with the BAA and learn a lot from it's members. I'm always open to new ideas, so please give me your comments on any changes I make to the newsletter. I hope you all enjoy my first attempt at being your editor.

Jamie Seibert

BAA WEB SITE

Tom Bemus and Bill Smith put together a club web site at :
<http://members.aol.com/BufAstro/>

For Sale

Discovery 8" f/6 Dobsonian Telescope
1 Year Old
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