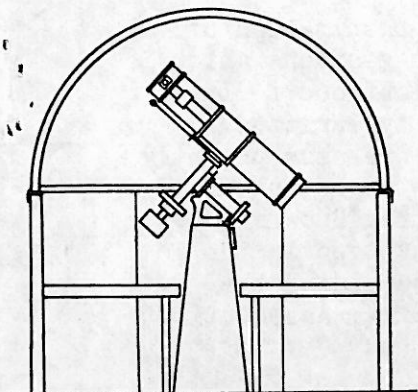


the

BUFFALO ASTRONOMICAL ASSOCIATION INC.  
BUFFALO MUSEUM OF SCIENCE  
HUMBOLDT PARKWAY  
BUFFALO NEW YORK 14211

# Spectrum

NOVEMBER 1967



**NOVEMBER MEETING:** Please note that we will NOT MEET AT THE MUSEUM. The meeting will take place at 8:00 pm (EST) on November 10, at the Planetarium of the State University College at Buffalo (State Teacher's College), 1300 Elmwood Ave. The Planetarium is located in the basement of the New Science Building in the north-west corner of the campus. Due to construction on campus the best procedure is to ask direction on campus (ask for the New Science Building rather than the Planetarium). The campus is located opposite the Art Gallery. There is ample parking space west of the building. Those who will require transportation are ask to call Mrs. Edith Geiger at 833-4138. If for some reason you cannot call, there will be some cars at the Museum at 7:30 pm (meet in the fenced-in west side parking lot). Our host will be Mr. James Orgren, Director of the Planetarium. Mr. Orgren served for two years in a similar capacity at the Earth and Space Sciences Laboratory in Maryland before coming to Buffalo. He is particularly interested in curriculum study (Earth Sciences) for High Schools and Colleges. He is also actively planning an expansion of the astronomical facilities at the college with the possible addition of an observatory with an instrument in the 12 to 20 inch range. This should be a very instructive lecture-demonstration and we hope for an excellent attendance. See you at the Planetarium on November 10, at 8:00 pm!

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**IMPORTANT NOTICE:** With this issue we are mailing convenient forms for the payment of membership dues. Please note that these have been increased slightly for the coming year, due to a general increase in operating costs including the Spectrum and our completed Newstead Observatory. We have also established several new membership categories which we hope will prove useful. Annual membership is \$ 5.00, Student and Senior membership (under 16 and over 65 years of age) are \$ 3.00; Family membership is \$ 5.00 plus \$ 3.00 for each additional member of the family. You will also notice that there is an Observatory Assessment of \$ 5.00, designed particularly for the newer members who as yet have perhaps not had an opportunity to contribute to our observatory fund. In the past we had several such assessments and most of our older members contributed quite willingly. While this is in addition to the regular membership fee of whatever category, it is entirely voluntary. The observatory fund is designed to cover major construction and maintenance costs.

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SECOND IMPORTANT NOTICE: While we have not yet finalized the re-organization of the Spectrum production, we have managed to come up with a few suggestions which will facilitate said production. We are always looking for contributions to these pages. Articles should preferably be less than two double-spaced typewritten pages, although original, longer articles will be considered. We are also urgently interested in news items either of a personal nature (concerning the astronomical activities of our members) or of a more general astronomical nature. Book reviews, short and to the point, are also appreciated. News items to be included in the next issue must reach this office around the 10th of the month preceeding the issue. Address all correspondance to: "Spectrum, Buffalo Astronomical Association, Buffalo Museum of Science, Buffalo, N.Y. 14211." eeb.

\* \* \* \*

\* MY EARLY TELESCOPIC OBSERVATIONS OF THE MOON. \* By Fred W. Price. (Conclusion).

I never cease to marvel at what this instrument will reveal. Every observation is a unique experience and a revelation. The myriad detail which it shows on the Moon's surface would keep anyone busy for more than a lifetime observing, drawing and describing. The delicacy of detail visible in the telescope may be judged from the fact that it easily reveals the Triesnecker cleft system and convincingly shows the Hyginus cleft as a crater chain. One of my chief pleasures is in comparing drawings of lunar features made with my telescope with those made by other observers using larger instruments. I am always pleased when I see how much of the detail shown in larger telescopes is visible in my own.

The subject of my first lunar drawing was the Mare Crisium. One evening in February 1961 I was in the front garden enjoying a low-power telescopic view of the three-day crescent Moon, which with strong Earthshine and seen against the deep blue velvet of the evening sky was a sight of surpassing beauty. On applying the higher power my eye settled on Mare Crisium. I decided to draw a part of it and made my pencil sketch on a piece of paper five by seven inches and my work was illuminated with a flickering oil lamp. During the next lunation I made sketches of the sunrise aspects of the craters Archimedes and Gassendi. The area of Aristarchus, Herodotus and Schroeter's Valley came into view on the night after I sketched Gassendi and my then rather untrained powers of delineation were taxed in the effort to make an accurate drawing of what I saw. Two months after this first observation of Aristarchus and area, I recognized the well-known dark bands on the wall of this crater and drew them. On the same evening I sketched Schickard and was impressed with the amount of detail I found on its floor. The intriguing detail on the eastern floor of Bullialdus also claimed my attention at about this time and was to be the subject of further investigations when I had access to the larger instrument to be mentioned later. In succeeding months sketches of the floor detail of Gassendi were made but I never seemed to be able to see any clefts although the major ones are within reach of a three inch refractor. Maybe the lighting wasn't quite right or the air was not steady enough.

One frosty evening in November of the same year, the air was clear and still and the Moon was a day past full. The Cape Agarum was prominently displayed and I worked hard to make the best of the good seeing to produce an accurate sketch of this formation. The clear air also permitted my best view so far of the famous constellation of white spots known as the "Trapezium" or "Barker's Quadrangle" on



the nearby mare floor. This was carefully scetched and I made notes of the relative sizes and brilliance of the spots. I considered the results of my efforts well worth the slight sore throat I woke up with the next morning which was no doubt due to my prolonged exposure to the frosty air on the previous evening. With increasing experience my observations were directed more and more to recording the finest detail I could see. Among these observations were some which resulted in carefully drawn charts of the highlight aspects of the multitude of streaks and spots in the south Mare Crisium and in Palus Somnii.

To describe all of my early lunar observations would occupy too much space and time. In recent years I have been privileged to use the fine eight-inch refractor of the Buffalo Museum of Science and have made many lunar observations and drawings with it. In spite of now being accustomed to this larger aperture I always look forward to using my three-inch when I return home to England for vacations. I point it at the Moon at the earliest opportunity and what it reveals never incurs any sense of disappointment but rather the reverse - keen pleasure, a sense of awe and a strong desire to record on paper some of what I see. A good quality three-inch astronomical refractor, such as my own, is a beautiful instrument and is not to be despised. Although I anticipate getting "something larger" of my own in the future I shall never part with my "noble instrument" and will always enjoy using it.

\* \* \*

\* THE COST OF LUNAR OBSERVATIONS. \* By Ronald C. Clippinger  
(based on Sky and Telescope, Jan. 1944)

The Moon was responsible for the founding of the Greenwich Observatory in 1676. If its position could be predicted with certainty, the Moon would provide a means of determining Greenwich time (and hence, longitude) when the observer was at sea. Even today, observations of the Moon's position are considered very important at Greenwich.

Sir George Airy guarded the tradition carefully, about a century ago. As Turner tells us in his Modern Astronomy (1901), occasionally an assistant would have "some accident with an observation of the Moon," perhaps through over-sleeping on a cold morning; "Airy's rebuke would be conveyed in some such terms as these, written out on a piece of paper, and laid on the desk of the delinquent: 'The Royal Observatory was founded for observations of the Moon. We get about 300 observations of the Moon during the year in all; and the Observatory costs the nation 6,000 pounds a year. Hence each observation of the Moon is worth 20 pounds; and by losing one last night you have cost the nation 20 pounds!' The effect of such a rebuke has been described as prodigious."

Almost a hundred dollars seems pretty high for one observation of the Moon's position, whereas Harlow Shapley figured a few years ago that it cost only a few cents to discover a galaxy!

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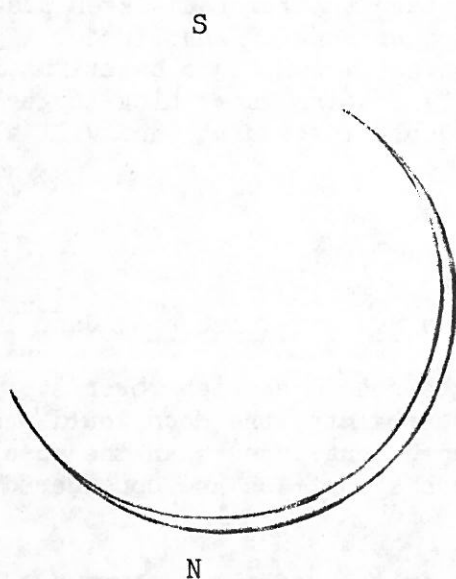
\* NEW SCHOOL PLANETARIUM. \* By Dale Hankin.

In January 1968 Maryvale Senior High School will open a new planetarium to serve both the needs of its classes as well as those of its community.

With a dome 24 ft. in diameter, the building will seat about 60 people. It is equipped with a Nova projector and the building is designed in such a way that it may be used for regular classes in Earth Science and physics. Although primarily intended as a teaching installation, the planetarium will be available for general community programs. The School also has an Astronomy Club which meets on every Thursday. It has the use of a 4-inch, f/15 refractor, while plans are under way for the construction of either a 6-inch, f/10, or an 8-inch, f/8 reflector to be built by the members. Mr. Kelsey, a former B.A.A. member, is in charge of the planetarium and has directed the Astronomy Club for the past 11 years.

\* \* \*

\* VENUS NEAR INFERIOR CONJUNCTION. \* Reported by Fred W. Price.



The following observation of Venus near Inferior Conjunction was sent to me in a letter by Mr. W. M. Baxter, Director of the Solar Section of the British Astronomical Association. I had the pleasure of meeting Mr. Baxter during my recent trip home to London and in his letter dated September 19th, 1967, he describes the observation in the following words: "I tried to see Venus through my telescope on the day of its Inferior Conjunction, as I did in 1959, but I failed through haze and cloud. However, I got it with my circles in mid-morning on September 4th, six days after Conjunction, and I have attempted to draw what I saw ... quite a sight." Mr. Baxter uses a four-inch refractor. The Sun was about five degrees NE of Venus.

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\* SPY AND TELL \*: The November 1967 issue of Sky and Telescope features Walter Semerau's solar equipment on its cover (in full color and with our member Ed Dahlke at the controls). A detailed and richly illustrated article by Walt describing his instrumentation is found between pages 329-335. One of Walt's spectroheliograms also appears on page 296. Congratulations Walt !! \* \* \* You don't purchase a frequency control, study it, and build one just like it - - then send it back for the refund - - how about it, Ed Dahlke? \* \* \* Wouldn't it be just dandy if some one were to take a really candid shot of our VIP for the X-mas party?? How about it, camera bugs? Large reward offered. \* \* \* Ed Lindberg now has a two-way telephone radio transmitter which he uses much like a telephone (natch.). He got it installed in his car to use on trips. They say the reception is marvelous on the Thruway, especially around 2 or 3 AM. If you are a telephone radio operator, you can expect a call at any hour of the night from the Lindbergs. Olga and Ed went to the Antique Radio Convention September 22-24 in Detroit. The Dearborn Village display of antique radios was a great attraction. They also took a run down to Batavia to see the Sky-Divers floating down in their parachutes at the convention held at Batavia airport. Now Ed, please don't get any ideas. Astronomy doesn't include sky-diving, except for meteors (and/or astronautics). \* \* \* \* \*

BUFFALO ASTRONOMICAL ASSOCIATION, INC. Buffalo Museum of Science, Buffalo, NY 14211

Membership dues, January 1, 1968 to December 31, 1968

\_\_\_\_\_ ANNUAL ..... \$ 5.00  
\_\_\_\_\_ STUDENT/SENIOR ..... \$ 3.00  
\_\_\_\_\_ FAMILY ..... \$ 5.00 + \$ 3.00 for each additional  
\_\_\_\_\_ OBSERVATORY ASSESSMENT ..... \$ 5.00  
Total amount to be remitted ..... \$ \_\_\_\_\_  
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ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ ZIP CODE \_\_\_\_\_  
PHONE \_\_\_\_\_

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