

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

# THE SPECTRUM

OCTOBER 1969

OCTOBER MEETING: Our second meeting of the new season (October 10, 1969, 8:00 PM-EDT) will feature our own vice-president, Orrin Christy, with a lecture on AMATEUR RADIO ASTRONOMY. It will be recalled that during the Second World War radio astronomy did not develop to any degree because many astronomers and radio engineers, who might have been interested in such a development, were contributing their knowledge and talents to the war effort. One lone amateur, Grote Reber of Wheaton, Illinois, did build the first radio telescope of any consequence and did produce the first crude map of the radio sky (Astrophysical Journal 100: 285, 1944. An earlier announcement appeared in vol. 91: 621-624, 1940). But since that time, amateurs have shown little inclination to "bother" with radio astronomy, possibly because of the unwieldiness of the required instrumentation. It is the more refreshing, then, to have in our midst a man who has built his own equipment and has put it to some good use. Orrin Christy needs no introduction. Suffice it to say that he has been interested in astronomy since his highschool-days. It is a real pleasure to welcome our own ORRIN CHRISTY!

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ELECTION OF BOARD MEMBERS: At the October meeting we will elect three new members-at-large to the B.A.A. Board of Directors for a term of two years. Darwin Christy and Walter Whyman have been re-nominated for a second term (both have served one term). Mr. William Chambers has been nominated as a third candidate. During the meeting the floor will be open for additional nominations. We urge all members to attend and to give serious consideration to additional nominations.

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SPY AND TELL: \* Ron Clippinger sporting a magnificent beard... Ron has served on the B.A.A. BOARD for the past year to fill the seat vacated (as a member-at-large) by Fred Price when he became our president. Ron declined re-nomination, wanted to see "new blood" - our appreciation to Ron for a job well done \* \* \* Speaking of jobs well done, surely all members would want to thank Mrs. Lillian Von Gerichten for the excellent job she is doing meeting after meeting with the refreshments. BUT SHE CANNOT DO IT ALONE. SHE NEEDS SOME HELP AT EACH MEETING - PLEASE! \* \* \* Richard Janas set another record bicycling out to Newstead recently (from the Kensington area!) - we understand that Ed Lindberg and he used the 12-inch to study the contents of bird's nests! REALLY! How would you like to have a giant staring into your living room! \* \* \* Newstead Observatory is being improved right and left, the shutter now works, thanks to Ed Lindberg & Co., who have installed myriads of little rollers. The dome drive

is functioning beautifully and sounds very impressive, thanks to the electronic help of Walt Whyman \* \* \* Our sincerest appreciation to Bruce Cook for donating his royalties (from SKY AND TELESCOPE subscriptions) to the E.A.A. treasury \* \* \* The Christy's telescope is sporting a new drive \* \* \* Our congratulations to Eugene and Larry Hazel for winning First Place in the special telescope division at Stellafane (August 9) for their solar instrument. This is quite an honor, and I am sure the members would like to hear more about the instrument \* \* \* A very prominent E.A.A. member tried to avoid paying his dues, TSK, TSK! \* \* \* Speaking of dues, please don't follow his example (or lack of it) and pay now, to avoid the tight squeeze at X-mas \* \* \* Our president will be in Philadelphia at about the time of the October meeting, attending a Biology Teachers Conference - have fun, Fred! \* \* \* Fred Price is going to lecture to the Rochester Astronomy Section, Rochester Academy of Sciences, Friday November 7 \* \* \*

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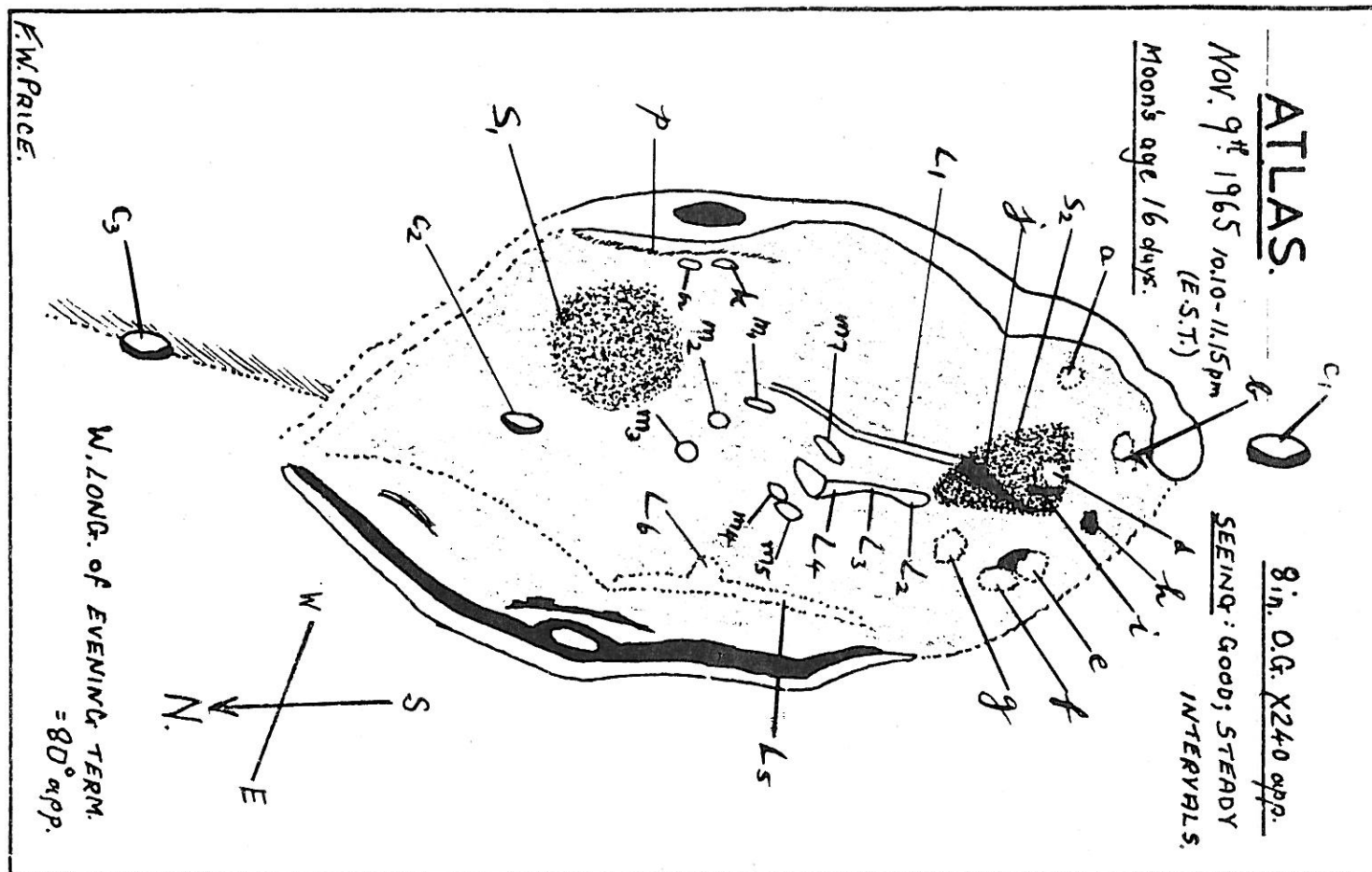
#### HOW TO BUILD UP AN ASTRONOMY LIBRARY WHEN YOU REALLY DON'T HAVE MUCH MONEY

by Kurt Erland

In these days of outrageous prices, one has to be a millionaire if one wishes to build up a library on any subject from scratch. On the brighter side, this is also the golden age of reprints and paperback, so it still is possible to get a private library going on relatively little money. In this and some future issues I shall attempt to survey the entire vast field of modern astronomy in paperbacks.

1. ELEMENTARY TEXTS: There are many general books available and it is not always easy to make a wise choice. I shall concentrate on recent books, bearing in mind that paperbacks usually appear about 2 years after the hard-cover edition. The date given first is that of the hard-cover edition. A very thorough treatment of the whole range of astronomy, and written so that you don't have to go to sleep, is Isaac Asimov's THE UNIVERSE: FROM FLAT EARTH TO QUASAR, 1966/1968, Discus Books, Walker & Co, N.Y. 315 pp., 95¢. This is well illustrated with diagrams and photos; less thorough and more historical is H.C. King's EXPLORATION OF THE UNIVERSE, 1964, Signet Science Library Books, N.Y. 335 pp., 75¢. There is a lot of history in this book plus a glossary of terms, but Asimov's book has more physics for the novice. If you are interested in the textbook, as a sleep-inducing approach, there are two recent ones on about the same level: Walter H. Hesse's ASTRONOMY: A BRIEF INTRODUCTION, 1967, Addison-Wesley Publ. Co, Reading, Mass. 127 pp., (price ca. \$ 1 to \$ 2) with many good diagrams, and quite good for a brief text; less satisfactory is Theodore G. Mehlin's ASTRONOMY AND THE ORIGIN OF THE EARTH, 1968 (Foundations of Earth Science series), Wm. C. Brown Co., Dubuque, Iowa, 131 pp. (price probably as the preceeding vol.); with this book one gets the distinct impression that it was written some 40 years ago, although if you are not interested in the latest news, it is OK (most textbooks don't carry the latest news anyway).

2. ADVANCED TEXTS: These are few and far between; the best and most expensive paperback we will probably encounter, is Albrecht Unsöld's THE NEW COSMOS, 1967/1969, translated from German (DER NEUE KOSMOS, what else) by Wm. H. McCrea, Springer-Verlag, N.Y. 373 pp., somewhere between \$ 6 to \$ 8, but well worth it. Unsöld is the grand old man of German astrophysics, who has done exceptional work on stellar atmospheres. Eminently readable (since there is no mathematics given) is Evry Schatzman's THE STRUCTURE OF THE UNIVERSE, 1968, translated from the French (somewhat clumsily) by P. Moore, World University Library, N.Y., \$ 2.45, 253 pp., with beautiful illustrations. An entirely different approach is used by Schatzman: while Unsöld's book (cont'd. back pg.)



\* AN OBSERVATION OF THE LUNAR CRATER ATLAS \* By Fred W. Price

I observed the lunar crater Atlas on the evening of November 9th, 1965, with the 8-inch refractor of the Buffalo Museum of Science's Kellogg Observatory. The seeing was unusually good and this observation gave me great satisfaction as I was able to record everything that the telescope was capable of revealing and every detail was checked for accuracy of delineation and position.

The floor of Atlas was of a grey color like the surrounding terrain. The West (in the old selenographic sense) wall was bright and the East wall was dull and casting a slight shadow. The following objects were seen as craterlets:  $c_1$ ,  $c_2$ ,  $c_3$ ; the object  $c_3$  seemed to be associated with a diffuse whitening of the crater floor.

White spots: Central group:  $m_1$  appeared elongated;  $m_7$  had a similar appearance and made an angle with  $m_1$ ;  $m_2$ ,  $m_3$ , approximately circular;  $m_4$ ,  $m_5$  close together and glimpsed as separate entities only with difficulty;  $m_6$  seemed to be triangular in shape; may be double - doubtful. None of the spots,  $m_1$  -  $m_6$ , seemed to cast a shadow; other white spots:  $a$ ,  $b$ ,  $e$ ,  $f$ ,  $g$ ,  $k$ ,  $n$ ; of these,  $e$  cast a shadow.

The dark spots: North dark spot ( $s_1$ ): was roughly circular with very diffuse edges; No "structure" was visible within its boundaries. South dark spot ( $s_2$ ): This was of a triangular shape about the same shade as  $s_1$ ; details of "structure" were visible within; the dark streak  $j$  looked like a shadow. A smaller dark streak  $i$  and the adjacent white patch  $d$  may represent a craterlet and its shadow. An intense black spot  $h$  was glimpsed in very steady intervals.

Other details on the crater floor:  $L_1$  - a bright white sharply defined line terminating abruptly near  $m_1$ ;  $L_2$ ,  $L_3$ ,  $L_4$  - components of a similar bright line.  $L_2$  was oval shaped,  $L_4$  triangular, and  $L_3$  was a narrow isthmus connecting  $L_2$  and  $L_4$ ;  $L_5$  was a faint white line following the base of the wall slope;  $L_6$  may have been a local condensation (? eeb) - very difficult to see. The shape was uncertain. I may have glimpsed a faint extension from this towards  $m_4$  and  $m_5$ , but this is doubtful;  $p$  appeared to be the shadow cast by a ridge on which stood the white spots  $k$  and  $n$ . (My thanks are due to Ernst E. Both for permission to use the 8-inch refractor) (You are welcome, Fred. eeb) \* \* \* \* \*



(Kurt Erland, cont'd. from pg. 2) is basically a text-book on astronomy, Schatzman's deals primarily with the gross structure of the universe from an evolutionary point of view. A true textbook of stellar astrophysics is Jean Dufay's INTRODUCTION TO ASTROPHYSICS: THE STARS, 1961/1964, translated from the French by Owen Gingerich (excellent translation), Dover Publ., N.Y. 164 pp., \$ 2.00; although it is classified "intermediate" (in the sense of astronomy college courses), it is somewhat rough going unless you know some math (college variety). It is simply an astrophysics text dealing with stars only. Other advanced texts will be mentioned in the various categories to be dealt-with in the future.

3. THE MOON: Despite current interest in our satellite, there is a dearth in good paper-backs. V. A. Firsoff's THE MOON, 1964/1966, Signet Science Library Books, N.Y. 127 pp., 60 ¢ may serve as an introduction, if one remembers that Firsoff has his own ideas about how the moon became what it is. The illustrations are good; Dinsmore Alter's INTRODUCTION TO THE MOON, 1958, Griffith Obs., Los Angeles, Calif. 108 pp., 75 ¢ (?) is a superbly illustrated guide for the budding selenographer. Alter, who died recently, took numerous photos with very large telescopes and he knew his moon well; this book may be out-of-print. A rambling "a little bit of everything" is the late Willy Ley's RANGER TO THE MOON, 1965, Signet Science Library Books, N.Y. 127 pp., 60 ¢; it actually contains quite a bit of information on the moon and lunar studies in general. More thorough is Zdenek Kopal's EXPLORATION OF THE MOON BY SPACECRAFT, 1968, Oliver and Boyd, London, 88 pp., about \$ 1.00; this is a fairly detailed account of results concerning the moon's surface structure, obtained by American and Russian probes. It is well illustrated with photographs and written in language easily understood. (to be continued, next issue). Note by eeb: although Mr. Erland seldom comes to our meetings, I have made arrangements with him to display the books he mentions in this issue at the October meeting. Some of them belong to him, some are from my library. At any rate, members are welcome to inspect them. \* \* \* \* \*

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