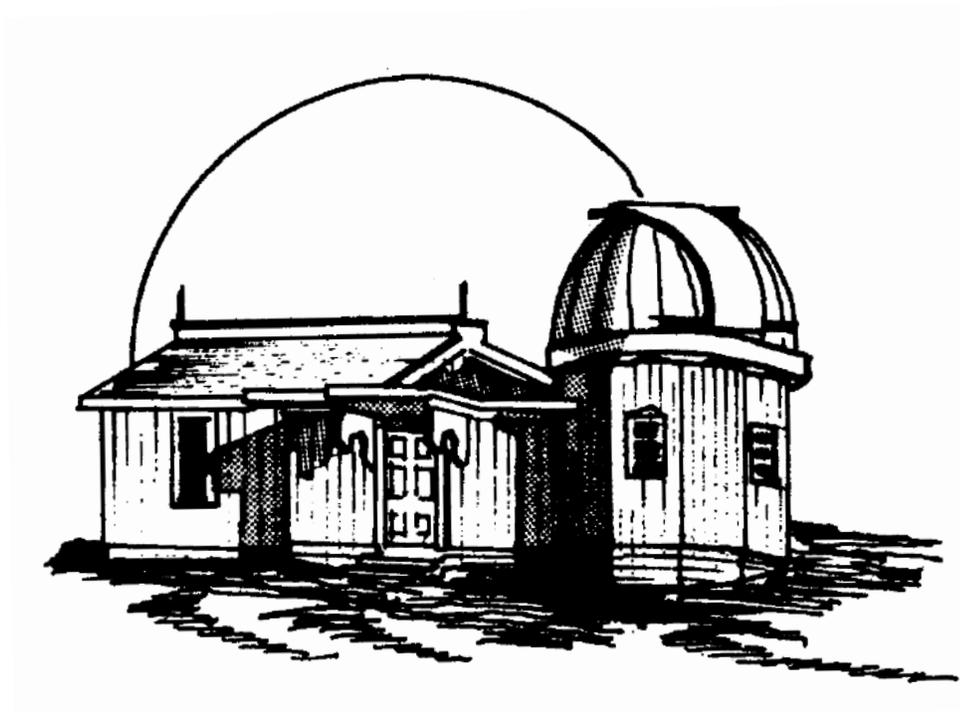


History of the Madison Astronomical Society¹



Part I: The First 50 Years

By John Rummel

¹ DRAFT version, as of Nov 29, 2021. All text by John Rummel. Contact at darksky2500@gmail.com. The line art above is reproduced from the masthead of a club newsletter from the 1970s. The artist is unknown. It depicts the UW Student Observatory which was donated to the club in 1960 and moved to Fitchburg, where it became MAS's observatory for the next 23 years (see chapter 5). The observatory can still be seen on the hill east of Fish Hatchery Road in Fitchburg, on the present-day property of the Promega Corporation.

Introduction

The Madison Astronomical Society has existed for the better part of a century, providing a place for Madison area amateurs to learn about and practice their hobby. MAS can lay a claim as one of the older astronomy clubs in the United States, and likely one of the oldest in continuous operation since its founding in the 1930s. But like many amateur organizations, it has paid only sporadic attention to documenting its own history. Over the years, founders have died, long time members have moved away or moved on, documents have been collected and then lost, and memories have faded.

In the late winter of 2019-2020, as the COVID-19 pandemic started to shut down much of the activity in Madison and in the country, a small group of MAS members started a serious effort to document the history of the club. Over the last year and a half, that group has sought out and interviewed many of its oldest members and those in the best position to speak to its history. We have collected documents from present and past members, contacted spouses and children of late members, conducted extensive online searching of newspaper and university archives, and spent endless hours organizing and collating the data. What follows is an attempt to distill that mass of information into a coherent narrative that adheres to the known facts.

The oral and written traditions of the club have largely held that the Madison Astronomical Society was formed in 1930 or very shortly thereafter. However, just as bodies in the solar system rarely follow perfectly circular orbits, if you dig into the evidence, the quest for MAS's date of origin tends to follow a decidedly elliptical path. Over the years, the club has celebrated its origins several times, resulting in some disagreement over its precise age. Here is a sample of MAS claims about its own founding:

Source:	Quote:	Stated or inferred founding date:
9/7/1947 WSJ article	"MAS will hold an open house on its 15th anniversary"	1932
10/12/1949 WSJ article	"Fifteen years ago, a nucleus of Madison people wanted to know more about astronomy," Huffer reminisced.	1934
9/11/1950 WSJ article	"Club will begin its 18th season"	1932
10/13/1963 WSJ article	"The club's range of study is much wider now than when the society was begun 25 years ago..."	1938
10/9/1972 WSJ article	"More than 40 years ago..." "first organized in 1930..."	1930
4/1/1991 WSJ article	"In 1930, the late Professor C.M. Huffer, then chairman of the UW-Madison's department of astronomy, met with a handful of amateur astronomers, most of them local doctors, to form the club."	1930
1993 (spring) club newsletter	"Founded in 1931, the MAS has been active in amateur astronomy for six decades."	1931
1994 club brochure	"1990 marked the 60th anniversary of the MAS."	1930

Sometime in the early 1960s, the exact date is not stated, a formal history of the club was penned². While its authorship remained unknown for many years, we now know it was written by MAS member and UW professor of Portuguese and Spanish, Eduardo Neale Silva. Here is the first paragraph:

² Neale Silva's history is reprinted in full in Appendix A.

The earliest plans for the creation of an Astronomical Society in Madison can be traced back to October 1930, when Mr. William R. Binney and Mr. John M. English discussed their common interest in lens grinding and observing as well as the possibility of attracting other would-be astronomers to probe the mystery of the stellar world. Soon after Dr. C. M. Huffer, a member of the Astronomy Department of the University of Wisconsin, who knew about Dr. Binney's hobby, was invited to dinner by Dr. J. S. Supernaw, a prominent Madison physician. The host, as it turned out, was also interested in amateur astronomy. Ideas were exchanged and finally, early in 1931, the Madison Astronomical Society was actually launched through the combined efforts of the four pioneers and a few friends.

Neale Silva's account became the authoritative version of the club's history for years thereafter. Indeed, other than a few blurbs on the back of brochures from the 1980s and 90s, it was the only attempt at a written history of the club many members had ever heard of. By word of mouth from those who had seen Neale Silva's account, the year 1930-31 became entrenched in the collective club memory as Year One. Well into the 21st century, when older members talked of the club's origins, 1930 was the year mentioned as its founding. Neale Silva's account of the club's history is important and contains many elements that we now know to be accurate, though the founding timeframe of 1930-31 is not one of them.

Chapter 1 will examine in detail the origin story of the MAS to forever resolve the confusion as to the founding date. As much as possible, the circumstances of the founding members, their activities and words, and the larger context that led to the formation of the club will be explored. Chapter 2 will dig into the relationship between the University of Wisconsin astronomy department and the club, especially with its young assistant professor Charles Huffer. Chapter 3 will unravel the club's attempts over the years to acquire its own observatory. Chapter 4 will explore in detail the rise to prominence of a younger group of MAS members and impulse which got them started: Project Moonwatch. Chapter 5 will continue the narrative of the younger members and recount the maturing of the Oscar Mayer Observatory with the donation of the UW's surplus observatory building. Chapter 6 will look at the evolution of the Junior Society into a Boy Scouts' Explorer Post in the 70s, and the club's eventual move out of Fitchburg in search of darker skies. That will conclude Part I of the history of the club. Part II will take up the story after the founding of the new observatory in Green County up to the present day. There are three appendices to Part I; a previously written brief history of the club, a collection of short bio-sketches of prominent members, and a first-hand account of the moving of the Student Observatory in 1960.

1. A Group with a Common Desire: The 1930s and the Origins of MAS

Thanks to regular coverage in the local newspapers, we know that the Madison Astronomical Society's *formal* founding happened in March, 1935, at a meeting where the first slate of officers was elected and the group announced plans to adopt a constitution in the coming weeks. To see how they got there, it's reasonable to look for other activities that may have preceded this formal founding. As stated in the Neale Silva quote in the Introduction, prior to the founding, people were discussing their "common interest in lens grinding and observing." Clearly the people who would go on to form the MAS were already active in the months and years prior to March of 1935. Here's what we know:

1931

The November 19th edition of the *Capitol Times* ran an article on Dr. Huffer's observations of the Leonid meteor shower. "Four university students aided Prof. C.M Huffer in plotting the path of 20 meteors which zoomed across the skies between 3 and 4 a.m. Wednesday." The article goes on to say, "Huffer is cooperating with the Watertown Amateur Astronomy Club in the project."

Given what we know about Huffer's later close association with the Madison amateurs, it may be noteworthy that there is no mention of a Madison club here. While absence of a Madison group's mention is not evidence of absence, it seems fair to assume that if Madison had an active amateur group at this time, Huffer would have taken steps to invite them.³

1932

The following year, Dr. Huffer again led a group of students in observing the Leonid meteor shower. The article notes that "Only 20 students and Madison citizens braved the low temperatures on Observatory Hill's crest to scan the sky and by 4 am only four of the hardest were still ooh-ing and aah-ing as the flashing streaks became fewer." As with the 1931 event, the absence of any mention of a Madison astronomy club is suggestive, but not conclusive. (Nov 16, 1932 *Wisconsin State Journal*)

1934

The "other MAS," (the Milwaukee Astronomical Society) had formed a few years earlier and was publishing a first rate newsletter by the early 1930s. There are two entries in their publication this year that illuminate the looming emergence of the Madison group. In the 1934 *M.A.S. Bulletin* (Milwaukee society, Vol I, No. I, Feb 1934), p 27:

We are glad to learn of the organization of an astronomical society in Reedsburg. It now has nine members and Mr. P. M. Loofboro is their president. May we extend our best wishes for a continued growth and great success in the science.

There definitely seems to be a rush on the formation of new astronomy clubs. Madison's time may soon be at hand. The note from Milwaukee continues:

Also a note at hand telling us about tentative plans for a similar organization at Madison. No particulars available at this time but we hope to have them for the next issue of The Bulletin. Although we are still young in our organized career, may we offer help in any way to these newly organized groups?

1934

³ One of the four university students mentioned is none other than Walter Scott Houston, who would serve as *Sky & Telescope Magazine's* "Deep Sky" columnist for many years. Though Houston was never more than a minor player in the MAS, he would continue to have contact with both the Madison and Milwaukee societies in the years to come (see Appendix B).

On July 1, 1934, the *Wisconsin State Journal* ran a feature article, with photos, about a local Madison minister named H. Randal Lookabill who was an astronomy enthusiast. The article is lengthy and speaks extensively about Lookabill's avid observing, telescope making and related activities. Near the end of the article is this quote:

Since there are many in Madison burning the midnight oil in efforts to construct telescopes, Mr. Lookabill believes an astronomical society will be organized next year.

For more on Rev. Lookabill, see Appendix B, but note in this quote the clear indication that, though there is much interest and activity in astronomy and telescope making in Madison, a club does not yet exist.

1935

This is the second reference to the Madison group in the (Milwaukee) MAS's newsletter. The MAS Bulletin, Vol. 2, No. 3, was published in March of 1935. On page 10, the following appears:

The recently organized Madison Astronomical Society is rapidly growing into a functioning organization. Some of the members are now cooperating with our meteor and variable star observers in various programs.

The same issue of the Milwaukee club's Bulletin also contains reports of Leonid meteor observations, presumably from the previous November (1934) noting the contributions of observers J. M. English (the leader for the Madison count) and R.C. Huffer⁴. At right is the complete citation from the January, 1935, Milwaukee Bulletin. Given the lead time needed to put together a publication of this quality in the 1930s, we believe it's possible that this represents the earliest use of the phrase "Madison Astronomical Society" in print.

Station No. 3	Madison Astronomical Society				
	J. M. English (Leader) **	14—15	11:50	14:00	23
		15—16	11:00	17:00	87
Station No. 4	Beloit College Students				
	Prof. R. C. Huffer (Leader)	14—15	12:00	17:00	44
		15—16	Overcast Skies		
Total plots					332
**The following persons participated in the work of the Madison station: Tom Binney, Mrs. Tom Binney, Walter Houston, J. C. Gamroth, Leslie Ketchum, Mrs. Leslie Ketchum, Clarence Draeger, John McClain, Walter Foster, Harold Jacobs, Henry Wright, Dr. Supernaw, and Rev. Lookabill.					

1935

In the February 22nd *Wisconsin State Journal*, a small entry lists the programming selections for local radio station WHA (The "Ideas Network"). WHA is the flagship radio station for the UW Madison and had been offering programming since 1922. It was a locally popular platform then, as it is now. Among the programs offered was a 15-minute segment called "Watchers of the Sky" by Paula Birner (see Appendix B).

Two additional sources give us insight into the 1934-35 origins of the club: The first is Dr. Charles Huffer's oral history, recorded by the UW Madison in 1977, over 40 years after the club's founding. The second is an article written by the society's first president, Dr. Jack Supernaw, in the very first issue of the club's newsletter in May, 1935. Both of those sources zero in on a series of courses taught by Dr. Huffer for the UW Extension Program in the 1935-36 time period. Then, as now, the UW Extension was an effort to extend the UW Madison's influence beyond the tuition-paying student body in Madison. Extension classes were offered throughout the state, even in communities that had no UW campus. Dr. Huffer taught several classes in elementary astronomy in Racine and later in Madison. In his oral history, Huffer described the connection this way:

[The formation of the MAS] was partly the result of an evening extension non-credit course that I gave in astronomy. Just elementary, descriptive astronomy, was sponsored by the department of

⁴ Dr. Ralph Huffer is the brother of UW Madison Charles Huffer. R. Huffer taught math at Beloit College for nearly 40 years.

the extension division of the University... These 2 classes formed the nucleus of the Madison Astronomical Society.

While Dr. Huffer draws a tentative line between his Extension courses and the MAS (“partly the result”), the contemporaneous account by Dr. Supernaw is more direct, though couched in the somewhat lyrical narrative he uses in his article on page 1 of the *Madison Bulletin*, Vol I, No. 1 of May, 1935:

It is significant, when the Extension Department of our State University announces a twelve-week course in popular astronomy, to have forty-seven in attendance for the first lecture. It is significant that among these forty-seven were housewives, grade and vocational teachers, nurses, oil station attendants, doctors, store-keepers, lawyers, and ministers — a cross section of diverse interests and tastes but a lay group with the common desire to know more about the mystery of the universe... The common need for discussion and “mutual benefits that evolve from congenial associations” gave rise to the organization of our present group.

Dr. Supernaw’s comments here draw a much clearer line between Huffer’s class and the Society. Supernaw’s list of the “diverse interests and tastes” make tangential mention of several of the society’s founding members: Supernaw himself was a physician. Paula Birner was a teacher at Lapham Elementary school. John English was a teacher at the Madison Vocational School. H. R. Lookabill was a minister. Porterfield and Lappley were lawyers. It appears these founding members—and others—came together because they were enrolled in Huffer’s course and wanted to keep the astronomy ball rolling after the lectures ended. Thus assembled the embryonic Madison astronomy club around the end of 1934 and the beginning of 1935.

Years later, in a 1949 interview with a *Capitol Times* reporter, Huffer characterized the connection between the Society and the Extension class this way:

“Fifteen years ago, a nucleus of Madison people wanted to know more about astronomy.” Huffer reminisced. “This group was used as a guinea pig for one of the first adult education lecture series offered by the university extension division, and I was selected to explain the skies to them.” (October 12, 1949 Capitol Times)



One of Dr. Huffer's astronomy classes taught for the UW Extension in Madison. Photo is from the UW Archives, dated April 28, 1936. The class is gathered around the step ladder at the 15.6 inch Clark refractor in the dome at Washburn Observatory. Dr. Huffer is near the center of the group, in the dark suit and tie.

The other “earliest” mention of the Madison Astronomical Society in print occurred in the *Wisconsin State Journal* on January 17, 1935. The Madison YMCA was hosting a hobby exposition and among the attractions highlighted was, “*The parts and working of a telescope will be presented in still and active life by the Madison Astronomical society.*” The previous weekend, the *Wisconsin State Journal* had run another teaser for the hobby show in which it mentioned the “telescopes of the astronomy club and John English.” English was a chemistry teacher at the Vocational School and would go on to figure prominently in the Society.

A few weeks later, the *State Journal* noted the formal incorporation of the Society:

Dr. J. S. Supernaw was elected president of the newly-formed Madison Astronomical Society at a meeting of amateur astronomers at the vocational school. Leslie W. Ketchum was elected vice-president and John W. English secretary-treasurer... The second meeting of the society will be held Wednesday night at the Madison Vocational School, room 140. The formation and adoption

of a constitution, with the express purpose of making this society a permanent organization for those interested in astronomy, will be begun. (WSJ March 3, 1935.)

If the club has a *date of birth*, March 3, 1935 is the best candidate.

2. In Appreciation of the Assistance: Partnering with the UW 1936-1951

Having officially launched the club in March of 1935, the Madison Astronomical Society now set about implementing its agenda and getting itself on its figurative feet. It had some catching up to do. Milwaukee had formed an astronomical society about two years before and was amassing an impressive track record of publication and accomplishment. This wasn't a competition though. Madison was a little behind but Milwaukee was willing to be superbly helpful to its younger sibling. The Madison Society laid out its entire plan in the *State Journal* article announcing the club's official formation:

In outlining a tentative program for the year, the club is making plans for telescopic observational work...The society is contemplating publishing a monthly paper for its members and others interested in scientific study. It also is considering a junior club to take care of the growing interest among astronomy students of the vocational and city high schools...The society plans to cooperate with other astronomy clubs throughout the state. (WSJ March 3, 1935).

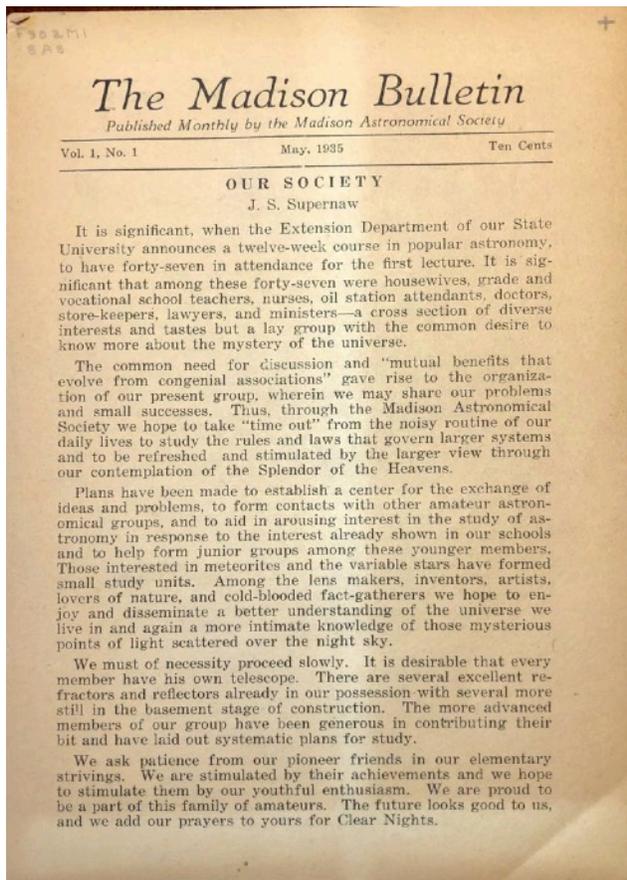
For those familiar with the later evolution of the club, this list is remarkably prescient. MAS did all of these things—and more—in the years to come. But the action that was to have the largest impact on the future of the club was not mentioned or foreseen here, maybe because it was so obvious that it didn't need to be mentioned: its relationship to the UW Madison astronomy department. In this chapter, we will explore how that relationship between the UW astronomy department—particularly Dr. Huffer—was central to the club's trajectory for the entire future of the club.

But first, let's return to the club's stated plans as outlined above.

MAS was already involved in telescopic observations, both formal and informal. It was holding public events and participating in group observations of meteor showers (in cooperation with the UW and neighboring astronomy clubs) and closely observing the planets. But they also quickly acted on the second priority: publishing a newsletter.

By May 1935, just two months after the meeting where officers were first selected, the inaugural edition of its first newsletter—*The Madison Bulletin*—appeared. Though only four pages long, it was a very polished and professional looking publication. This was no mimeograph duplication; it was a professionally typeset product. It was a close match to the Milwaukee Society's newsletter, which had been published since 1934. It may be that Madison's Society relied on those typesetting contacts and experience to secure a good deal for itself.

In this first issue, newly elected first president Dr. Supernaw wrote a front-page article. This is the



The Madison Astronomical Society's very first newsletter, the *Madison Bulletin*.



Cover of an issue of "Amateur Astronomy" (left) and a copy of the masthead from the inside of an issue showing affiliated clubs.

November, 1936 Amateur

The official monthly publication of
American Amateur Astronomical Association
 Publication Headquarters
 1312 E. Curtis Place, Milwaukee, Wis.

Affiliated Societies

- Astronomical Society of Rutherford, N. J.
- Amateur Astronomers Association of Pittsburgh, Pennsylvania.
- Amateur Telescope Makers of New York, N. Y.
- Astronomers Guild of Jamestown, New York.
- Chicago Amateur Astronomical Association, Chicago, Ill.
- Long Island Telescope Makers, Wantagh, N. Y.
- Louisville Astronomical Society, Louisville, Ky.
- Madison Astronomical Society, Madison, Wis.
- Metropolitan Astronomical Society, New York, New York.
- Milwaukee Astronomical Society, Milwaukee, Wis.
- New Jersey Astrophysical Society, Woodbridge, N. J.
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only written contribution from him that we have found (see above, page 4). If he wrote other articles or published other pieces elsewhere, they have not survived. In his article, Dr. Supernaw restated most of the priorities found in the *March State Journal* article, using mostly the same language.

The *Madison Bulletin* published ten issues over that first year but seems to have been quickly replaced by a joint effort with Milwaukee and other societies. Early in 1936, the Madison Society joined forces with the Milwaukee Astronomical Society (having been founded about two years before the Madison Society) and several other midwest amateur groups to publish a joint newsletter called *Amateur Astronomy*.

While the *Bulletin* was exclusively a Madison Society product, *Amateur Astronomy* was driven by and mostly made up of material which came out of the Milwaukee Society, but with contributions from others like the *Amateur Telescope Makers of New York* as well. Both were remarkably polished products with a very mature, professional look. AA published 13 issues from 1936 to May, 1938. It is unclear why both were so time-limited and ceased publication after only a few years, but expense may have been a large factor. Both charged a modest ten cents per copy and it's possible that sales were not sufficient to pay the expenses. Despite their short lives, both publications seem to point to the aspirations of the Madison Society to be more of a collaboration with professional astronomers than a simple organization of hobbyists.

MAS Meeting snapshot

October 16, 1935
 Dr. Huffer gives a talk on meteor showers, Forest Products Lab

November 15, 1935
 Members gather at the Monona Golf Course to observe the Leonid meteor shower.

March 19, 1936
 Discussion of shaping a 14" mirror blank, Washburn Observatory

Simultaneous to the publication push, the Madison Society announced a series of public lectures on astronomy that would be offered under the auspices of the Society. This announcement appeared in the June 18, 1936 edition of the *State Journal*:

A series of eight popular lectures on astronomical subjects, to begin Wednesday, June 24, was announced today by the Madison Astronomical society. All the subjects will be handled in a non-technical manner so star-minded children and adults of Madison may understand them.

We don't have a record of all of the lectures but they kicked off on June 24, 1936, and seemed to be scheduled weekly. These talks

were apparently separate from the regular monthly meetings of the club. They were intended to publicize the existence of the new club to the general public and raise funds by charging a modest admission fee. Underscoring the relationship with the Milwaukee Society, two of the first speakers were the president and vice president from the that group. The third was Dr. Huffer from the UW. Newspaper coverage suggests that they were fairly well attended, with an audience as high as 50 for the first one. The funds raised were to be directed toward the Madison Society goals, including the acquisition and mounting of a telescope to facilitate public outreach. As we'll see in the next chapter, it would take quite some time to realize the goal of a club observatory.

The Milwaukee-Madison partnership was also manifest in the initial burst of joint activity. In addition to the sharing of the publication of *Amateur Astronomy*, the Madison group was hosting the Milwaukee Society's members at their meetings (1935), the Milwaukee Society provided four of the featured speakers at the Madison group's lecture series (1936), the groups partnered in a Perseid observing project that included communication by radio between the two cities to assist in determining the altitude of the meteors (unfortunately, radio communications were foiled by atmospheric conditions), (1941) and the groups attending each others' picnics (1939 and 1949). The cooperation between the two groups feels almost as though there were a mentorship relationship between the two, with the Milwaukee group working to bring the Madison group along.

MAS Meeting snapshot

April 14, 1937

L. W. Ketchum will give a talk about the Moon, Washburn Observatory.

June 3, 1937

Harry Hackler will give a talk on the orbital motion of the Earth, Washburn Observatory

Another growing pain the Madison Astronomical Society members had to confront was finding a permanent location to hold their monthly meetings. Initially, meetings were held at a variety of locations, mostly dictated by the availability of space at the members' places of employment. Thus, records of early meetings indicate such locations as the Madison Vocational School (where English taught), the Madison General Hospital (where Supernaw was a surgeon), the Park Hotel (for a luncheon), the Forest Products Lab (where Parker Baird and George McNaughton worked), and the Monona Golf Club. The clubhouse at the Monona Golf Club is listed

several times as a meeting venue in 1935-36. The clubhouse was evidently a nice location to hold a meeting and perhaps crucially, just outside the clubhouse was a beautifully verdant field bordering the course. In the 1930s, this would have been the extreme eastern boundary of Madison. To the east and south was nothing but farms. It would have been ideal for setting up telescopes and sharing the sky with the public:

Monday some 15 eager Madison astronomers will gather at a special site just east of the Monona Golf clubhouse and start looking skyward for a heavenly show which will hold their unglazed eyes until dawn. (State Journal, April 19, 1936)

For a time there was even talk of establishing a permanent telescope on a pier at the Monona golf course, to facilitate public astronomy outreach. These plans evidently went nowhere and the club was to consider many other options for permanent telescope housings before any progress was made on this front (see next chapter).

Another well-known location used for observing was the west side reservoir located on Glenway near Regent St. The underground city infrastructure was invisible to most users, who simply enjoyed the hill for sledding and other youthful outdoor activities. Much like the Monona Golf Course represented the eastern extreme of built-up Madison, the Glenway and Regent area at that time marked the western extreme of the city and would have been much darker than areas closer to the university or downtown. MAS is on record using the reservoir location for observing meteor showers in the 1930s. Reservoir Park still exists at that location today.

Casting about for locations to hold meetings likely grew tedious and the club longed for a permanent space to call home. Into this gap stepped Dr. Charles Huffer. Though exactly how this unfolded is uncertain, the mutual affection and respect between Dr. Huffer and the club was already in evidence. In that light, an offer of space from the astronomy department is not surprising. Years later, in his oral history interview, Huffer told the story this way:

MAS Meeting snapshot

Dec 12, 1938

Parker Baird gave a talk on the Arizona meteor crater, meeting location unknown, probably Washburn.

Jan 9, 1939

Washburn Observatory, Paula Birner and C.M. Huffer will be the speakers. Miss Birner spoke on "upcoming astronomical events." Washburn Observatory.

Feb 10, 1939

Washburn Observatory, H. P. Porterfield led a discussion on the origins of the universe. Washburn Observatory.

Some of the people [from his Extension course on astronomy] that were interested came to me and said, "We want to have a society," so we invited them to come up to the observatory for their meetings once a month on a night when there were no classes...

The university's observing facilities at Washburn Observatory had a nice classroom space, and Huffer offered it to the MAS as a permanent meeting location.

Building a world-class observatory was a controversial issue when the UW Madison was a young institution. The cost of building and operating such an observatory occupied a fair percentage of the university's total budget, but prestige was on the line since most of the large eastern universities had astronomical observatories. Gov. Cadwallader Washburn set public access and outreach as an expectation, and specified in 1877 that such a facility must not be totally dominated by the researchers, but should be open and available to the public as well:

...in return for the public's consideration of this matter, the telescope would be available on the first and third Wednesdays of each month to anyone interested in viewing celestial objects. This practice has been maintained to this day. (A History of Washburn Observatory by Prof. Bob Bless, 1978)

MAS Meeting snapshot

July 11, 1940
Astronomers Study Famous
Telescopes

Plans for a year's study of famous telescopes were laid Wednesday night by about a dozen members of the Madison Astronomical Society meeting in Washburn observatory, Gilbert F. Lappley, a society director, announced today.

Huffer likely told the group that the Washburn Observatory was committed on the first and third Wednesdays, but its classroom space could be made available to the Society so long as it didn't conflict with that public obligation. It's easy to see how the MAS's desire to tap the public's interest in astronomy could be perfectly complementary to the university's outreach obligations. Two spring meetings took place at Washburn in 1936 and by the beginning of the 1937-38 academic year, the club seems to have permanently moved all of its monthly meetings to Observatory Hill. At the Sept 8, 1938 meeting, the official meeting date was changed from the third Thursday of the month to the second Wednesday, possibly to put Washburn on the outreach schedule where Wednesday evenings were set aside for the public. It was official, Washburn Observatory

was the home of the MAS. In one form or another, almost 75% of MAS's monthly meetings for the next eight decades would be held at UW venues.

The relationship between the two institutions was very tight. We have the minutes of many club meetings from the late 30s and early 40s and the words of appreciation that flow back and forth between the Society and Huffer and Stebbins are prominent:

Dr. Supernaw proposed that the Nov. meeting be called the annual dinner meeting and that as a token of appreciation of the assistance Dr. Stebbins and Dr. Huffer have given the society they and their wives be invited as guests. Motion carried. (club minutes, Oct 15, 1936).

Mr. Lookabill spoke expressing to Drs. Stebbins and Huffer appreciation for the help they have consistently given the society. (club minutes, Nov 19, 1936, during the annual dinner).

The close connection between the two was evident from the outside as well. In 1949, the *Capitol Times* observed, in a phrase that likely came from an MAS member, "The club is sponsored by the university department of astronomy." Another article in January, 1949, highlighted the many ways the city of Madison had benefited from its relationship to the University. Among the list was "the use of Washburn observatory by the Madison Astronomical society."

This relationship between the MAS and the astronomy department was to continue for many years and is still very relevant right up to the present day. The Society's relationship with Dr. Huffer in particular

would be very close. By September of 1938, Dr. Huffer would be elected to the Board of Directors as club secretary, and would hold that office continuously for the next 22 years. Though the group would have a variety of speakers for their monthly meetings, Huffer would be the most frequent invitee, appearing as speaker at least 16 times by 1950. Stebbins was listed as a speaker six times during that same period, but all those took place by 1942 (he left the UW in 1948). It appears that during the early 40s, MAS's association with the astronomy department matured into a stable, long-term relationship with Huffer, to the benefit of both.

MAS meetings were heavily dominated by members' presentations with Huffer being the most frequent professional speaker. Other speakers (in descending order of frequency) were: Porterfield (16), Baillie (10), Binney (7), Grams (6), Lapple (5), Birner (5), Ketchum (4), Baird (4) and Hackler and Grove (3 each). Talks given by non-MAS members were rare in those early days. The other exception besides Huffer and Stebbins seems to have been Prof. J.G. Winans, a professor in the physics department, who appeared as a speaker twice in the period ending in 1950. This bias toward the lay members of the clubs giving the talks was intentional. In the club minutes from the October, 1936, board meeting, Dr. Supernaw specifically recommended that the board plan "more simple subjects for the programs." Mr. Baird echoed this sentiment and expressed a preference for "local talent" rather than "'high power' speakers from outside of the club.

A glimpse into Dr. Huffer's role inside the group emerges from a letter written the following decade. In 1952, negotiations were underway to facilitate the donation of a telescope to the club from businessman Oscar Mayer (see next chapter for more on this). As plans for the donation of the telescope and a generous cash gift to help build an observatory were in process, Dr. Huffer wrote a letter to Thomas Stavrum (at that time, chair of the club's telescope committee) briefing him on the results of a meeting with Mayer. At the end of the letter, this unrelated exchange is added, just before signing off:

I see no point in calling Shatzel this afternoon since Joanna has a copy of his letter received on Saturday. I hope plans develop for Shatzel's lecture and am sorry that I shall not be home to help with all this.

"Joanna" is Joanna Overn, a UW student and president of the MAS in 1952. "Shatzel" may have been Albert Schatzel, associated with the University of Chicago, and a year or so later, acting director of the Adler Planetarium. It seems likely he was being invited as a speaker at a future meeting of the group, but arrangements were still underway. This relationship makes sense, since the telescope being donated by Mayer was currently being held by the Adler. There's no indication Schatzel ever gave his talk to the MAS. Clearly Huffer was intimately involved in the day-to-day operations of the group. This expression of regret for not being available to follow through on something so routine as a speaker invite underscores the warmth of his attachment to the Society.

MAS members were active in watching astronomical events on their own and with other members (eclipses, meteor showers, etc.), traveling and making their own telescopes. The club was also focused on creating social opportunities. They had yearly picnics and banquets, frequently ran events designed for public observing, and had club observing events. This last category appeared more social than scientific from comments preserved in the minutes. We even have one mention of a group of members traveling to a local elementary school to talk to a class of 6th graders (October 25, 1935 WSJ).

MAS Meeting snapshot

March 11, 1942

J. M. Gaffney spoke on Jupiter; Dr. Huffer gave a talk about the discoveries of Neptune and Pluto. Washburn Observatory.

April 8, 1942

J. Stebbins spoke on the Dedication of the new Mexican Astrophysical Observatory at Tonanzintla, Mexico; H. Porterfield talked on Saturn and G. F. Lapple spoke on Ursa Major. Washburn Observatory.

May 13, 1942

William Ryan gave a talk about Uranus; J. G. Winans (UW Physics prof) gave a talk entitled "The Mysteries of Light." Washburn Observatory.

3. Surveying the Madison Area: An Observatory of Our Own 1936-1956

Almost as soon as the ink was dry on the 1935 founding documents, MAS members were talking about having their own observatory. For astronomy fans, observatories were very much in the news. George Hale had built three of the largest telescopes in the world over the preceding half century, one of them just a few miles down the road in Lake Geneva, WI. The year before, Hale's latest big science project was in the news when Corning Glass in New York was pouring tons of glass into a 17-foot circular mold to create the next generation giant telescope. Within a few days of the original *State Journal* article documenting the formation of the Madison Astronomical Society, this headline appeared:

*Astronomers Talk City Observatory, Plan at Meeting
(March 7, 1935 Wisconsin State Journal)*

Prior to 1935, area observers were already gathering at the Monona Golf Course to watch the skies. Soon after forming the club, MAS members were occasionally using the clubhouse there as a meeting location (this building still stands today, known as the Nathan and Harriet Dean House, a Victorian house museum on Monona Drive). As noted in the previous chapter, the golf course was then on the very edge of the city. Beyond the clubhouse, wide open spaces and dark skies beckoned. It's not surprising that this location was being discussed as a spot for a permanent telescope that could benefit the whole city.



The rear of the Dean House at Monona Golf Course, sometime in the 1930s. It is this lawn that would likely have been the preferred location for observing by the MAS in the 1930s. Photo courtesy the Nathan and Harriet Dean House.

A large telescope, which would be open to the public may be placed at the Monona golf course, where the society makes its observations, Mayor Law has granted the use of the course and the city board of education has given the society a blackboard. At first the group decided to have a 15-inch telescope, but a smaller one may be set up. (July 28, 1935 Wisconsin State Journal)

Just a few months later, observatory plans received a boost when Rev. Lookabill was the recipient of a gift that seemed the perfect find for the astronomy enthusiast and for the club which he had just helped to found. Recounted in a December 1, 1935, article in the *State Journal*, a group of scientists and executives at the Corning Glassworks of New York presented the pastor with an 8-inch mirror which was part of the same pour that resulted in the 200-inch mirror, cast just the previous year in 1934. Hale's 200-inch project was much in the news in those days, representing the first "big science" project of its kind, and captured the public's imagination. The 200-inch was, of course, headed for Mt. Palomar in California.

Lookabill obviously had some well-placed friends in the astronomy community. From the same *State Journal* article:

When the huge 200-inch lens was poured, Albert G. Ingalls, associate editor of Scientific American, was given an eight-inch disc poured at the same time. Dr. S. H. Shelb, Richmond, Va., and LeRoy M. Clausung, Chicago, perfected the lens and coated it with aluminum to form a mirror. Then

MAS Meeting snapshot

September 25, 1950
Star party to observe lunar eclipse, Washburn Observatory.

February 14, 1951
Q&A session hosted by Ed Baillie, A. E. Whitford, C. M. Huffer, and Harold Porterfield. Washburn Observatory.

March 21, 1951
Charles Boyd of the UW Chemistry Dept gave a talk on rockets and jet propulsion - German V-2s and White Sands tests. Comments were also made on the possibilities of a rocket flight to the moon. Madison Vocational School.

they sent it to Mr. Lookabill.

The gift had been in the planning stages for some time. Other parties provided a tube, diagonal prisms, eyepieces and a pedestal. The participants referred to the package as “The Minister’s Telescope Basket.” The parts were assembled by Rev. Lookabill.

“There is an added interest to me in this fine instrument,” he explained, “for the lens is really part of the great 200-inch telescope. So while the scientific world will have to wait four years for a look through the giant telescope, I can stay right here in Madison and scan the heavens any clear night,” said Lookabill. (quoted in 12/1/1935 State Journal)

The world would have to wait considerably longer than four years for the Palomar giant. The great 200-inch telescope, its progress delayed by technical challenges and the coming of World War II, would not see first light until 1948, 14 years later. The MAS, as it turns out, would have to wait even longer for their observatory.

If Lookabill ever assembled and used the 8-inch telescope, we have no record of it, and it’s never mentioned again. But just months later, the irrepressible Rev. Lookabill is back at it, this time with a 14-inch mirror blank. From the March 21, 1936 *State Journal*:

Years ago a Cincinnati glass firm, knowing of the interest of the Rev. H. Randdel [sic] Lookabill in telescopes, gave him a disk of glass 14 inches in diameter and about two inches thick, told him to make a telescope. He never ground the lens. Now he has presented it to the society, and it will be the “big eye” for the telescope if it is completed. Scientists at the University of Wisconsin who tested the glass found it satisfactory for a telescopic mirror.

This is the only mention of the 14-inch mirror blank that we have found. Its fate is unknown. There is no further mention of a club facility at the Monona Golf Club, these plans having apparently been dropped. The demise of the 14-inch mirror is not surprising—even as it entered the discussion, its progress seemed dubious. From later in the March 21st article we have this:

If the instrument is constructed, it will be necessary to have an observatory, but the society has taken no other definite action yet.

MAS Meeting snapshot

April 7, 1952

Katherine McMullen will speak on “Astronomy in Literature,” at 8 pm, Washburn Observatory,

August 8, 1952

Special sessions will be held by the Madison Astronomical Society for observations of the Perseid Meteors at the Washburn Observatory here Sunday, Monday and Tuesday nights. The sessions will be held whenever the sky is clear between the hours of 8 pm and 4 am.

The lack of progress would be the rule, not the exception. Just a few weeks later, Rev. Lookabill announced his resignation from the Madison church where he had preached for six years. He would be moving to Michigan at the end of the summer to accept an invitation to minister there. Though Lookabill would maintain some ties to the MAS and the city of Madison for years to come, his time in Madison and with the MAS had come to an end. Was it perhaps his departure that ended talk of establishing an observatory? No one knows. The summer of 1936 marked the end of the club’s talk of founding an observatory. At least for now.

For the next 15 years or so, MAS kept very busy. The club had experienced a successful launch and was growing. Monthly meetings were well attended, members were happily making their own telescopes, attending talks, socializing, and more. The club was receiving publicity and membership was likely expanding. But there was no more mention of an observatory until the 1950s. Fifteen years brought many changes—and new leadership—to the MAS, but the headline sounded familiar. The April 7, 1952, *State Journal* headline proclaimed a familiar theme:

City Amateur Astronomers Get ‘Own’ Telescope, Seek Site

The group, as we'll see, is about to acquire not one but two telescopes. The first was a relatively modest reflector, the second a very nice refractor. The acquisition of the reflector renewed the club's quest for a dedicated observatory in which to install it:

The capital city's group of amateur watchers of the heavens has recently acquired its first society-owned telescope and is presently surveying the Madison area for a spot where the scope may be mounted permanently. "What we need," said Joanna Overn, University of Wisconsin senior student, Madison resident, and this year's enthusiastic president of the Astronomical society, "is a place that has an uninterrupted view of the sky, a spot that is free from excessive light and has easy access from the city."

City parks were considered—and rejected—their early closing times not being friendly to astronomical pursuits. Private property would be ideal but property was expensive, and the club's resources were limited. So limited in fact, that the first telescope acquired couldn't be funded with Society money alone and needed some additional donors. The April 7 article continued:

...a "bargain" telescope was discovered in La Crosse; the \$125 for purchase was accomplished through voluntary contributions.

The telescope they had acquired from a LaCrosse seller (we have not discovered its origin beyond this) was a 10-inch Newtonian reflector built into a wooden rectangular enclosure rather than a round tube. This telescope would be kept by the club for over 25 years (and refurbished a few times) but problems with its mount prevented it from being heavily used. Nevertheless, it will figure in the coming pages of this story.

The second telescope acquisition in 1952 was a pure donation, and a very good one.

Oscar Mayer was a German immigrant businessman. Along with his brother Gottfried, he headed one of the largest meat distribution operations in the country. Headquartered in Chicago, they expanded into Madison with the opening of a processing plant on the north side in 1919. By 1957, Madison would become the their corporate headquarters.

Mayer, it turns out, was also a bit of a science geek and a fan of astronomy. By 1952 he had made the acquaintance of Dr. Huffer and talk began of Mayer helping out with MAS's dream of having its own observatory. In June of 1952, Dr. Huffer exchanged several letters with Mayer regarding a telescope owned by Mayer but currently on loan to the Adler Planetarium. The following is a quote from Dr. Huffer to Mayer's secretary, Lois Ramseth, dated June 18, 1952:

You may remember that several weeks ago we had a conversation regarding the telescope which is owned by Mr. Mayer and is on loan to the Chicago planetarium. According to our agreement, I stopped at the planetarium last Friday and saw this telescope. I must say that I was very much impressed with the instrument, and found that it was a little more elaborate than I had visualized.

MAS Meeting snapshot

January 10, 1953

Mrs. Fred Ehrensperger will talk on Tycho Brahe and Dr. Arthur Code will discuss radio astronomy, Washburn Observatory.

February 8, 1953

"Exploring the Atom" by Prof. John E. Willard of the University of Wisconsin Astronomy. Edward P. Baillie will give a short talk on Johannes Kepler, famous 16th century German astronomer, 8 pm at the Washburn Observatory.

The telescope was a 4.25-inch Steinheil refractor, a very fine telescope indeed. In quality, it was far beyond the modest 10-inch reflector the club had recently purchased. Mayer had evidently mentioned the possibility of donating this telescope to MAS and Huffer, on behalf of the Society, was very interested in closing this deal. He mentioned that they had recently purchased the 10-inch reflector, and that the addition of the Mayer telescope would be "a fine beginning of a municipal observatory." The old familiar

problems were still present however, including where to put this observatory and how to pay for the inevitable expenses involved. As he continues in his letter to Mayer's secretary, one gets the impression that Huffer senses that a larger Mayer donation is within their grasp:

It [the Steinheil] is rather large and should be put in a permanent location; it would require a building to house it...The 10-inch reflector is temporarily mounted on property belonging to the First Unitarian Society of Madison, but it is obvious that the Madison Astronomical Society needs to make plans for a permanent installation, either on their own property or on a site owned by the city of Madison. All these problems need careful and deliberate consideration. We should be very happy to have a suggestion from you regarding the next move.

In this brief quote, we also learn that MAS had a temporary observing facility on the property of the Unitarian Church. This is its only mention. Mayer wasted no time in sending a reply to Huffer. The very next day he posted the following:

My secretary, Miss Ramseth, has shown me your letter of June 18th. I am glad to hear that you like my 4-1/4" refractor. It is a very fine Steinheil instrument which my father brought over from Munich 25 years ago. It has never been used simply because we have never had a place from which observations could be made. I would be very glad if you could come in to see me on your next trip to Chicago, for I would like to see this telescope put to constructive use. It might be that we could make some contribution towards housing the instrument through our Foundation, along with your 10" reflector. Our contribution could not be very large, but added to gifts coming from others might make it possible to construct an observatory building which could be adapted to your purposes. (Mayer to Huffer, June 19, 1952)

Huffer also replied the next day (giving this correspondence a somewhat breathless pace!) expressing the hope that arrangements could be made. Huffer was getting ready to leave Madison for meetings on the west coast and upon return would be buried in his summer school teaching duties, but he was going to turn Mayer's letter over to the MAS telescope committee for "further study."

The next thread of this correspondence that we have is two months later, after Huffer's visit with Mayer in Chicago. Huffer is writing to MAS member Thomas Stavrum, likely the head of the aforementioned telescope committee:

Mr. Mayer amazed me with his knowledge of astronomy and is interested in modern theories. During the conversation he expressed the opinion that we should go ahead with our more ambitious plan for building a telescope with dome. Furthermore he volunteered a contribution of \$2,000.00 from the Oscar Mayer Foundation and dictated a note to his Secretary to that effect. In the note he included a statement that his 4/1/4" telescope be delivered to us in Madison at my request and that the \$2,000.00 would also be available whenever I asked for it. (Huffer to Stavrum, August 25, 1952)

Mayer's offer of \$2,000 in addition to the telescope is very generous (equivalent to approximately \$20,000 in 2021 dollars) and more than enough to ensure construction of a suitable building. Huffer's letter to Stavrum continues and mentions proceeding with the plan to build on "Mr. Rodman's property" on a lease arrangement for \$1 per year. He expressed hope that the construction would take place that fall. Neither Rodman's identity nor the location of his property is not known and nothing more was said of this plan. Again, the timeline was too optimistic and progress eventually slowed.

By October, 1952, an observatory site was being considered near Middleton:

The Madison Astronomical Society is planning to build an observatory to provide its members with facilities with which to study the stars, planets, and the moon, The Capital Times learned today. The project still is in a nebulous stage, however, and construction probably will not get

underway until next spring. The Society has had an offer of part of a 2-acre tract of land on a hill a mile southeast of Middleton as a site for the structure and \$2,000 has been contributed to the building fund by the Oscar Mayer Foundation. (Capital Times, October 16, 1952.)

The details of this location are unknown and pretty unclear given the vague description. By the stage of development Madison had achieved in 1952, “a mile SE of Middleton” would have been rural farmland around the intersection of University Ave and Allen Blvd. (near the Imperial Garden restaurant’s current location), though the description is too fuzzy to be anything but suggestive. Was the “hill” near present-day, nearly unknown Skyview Park (just off Highland Ave)? No one knows. A subsequent mention of this location occurred in the December 11, 1952, *Capital Times*, but the focus of this article was Oscar Mayer’s donation of the Steinheil telescope. In this article we learn that the Steinheil scope was a bit of a celebrity. It is the telescope that launched the 1933 Chicago Exposition when light from the star Arcturus was directed onto a photocell through its lenses to launch the celebrations. The article mentions the gifts of Oscar Mayer to the club and the proposed observatory. In its first sentence, it repeats the “hill southeast of Middleton” and in its final sentence:

Plans for the new local observatory are being completed, according to Prof, C. M. Huffer, University astronomer. The land site was given to the Society by the Oscar Mayer Foundation. (Capital Times, December 11, 1952.)

This confuses the situation more since we know that Mayer donated a telescope and cash, not land. And again, a location “SE of Middleton” makes little sense, since traveling SE from Middleton would take you to a location more concisely described as “west of Madison.” Taking what we are soon to learn of the observatory’s final site selection in Fitchburg, is it possible all this verbiage is simply pointing to the Bjorksten property off Fish Hatchery Road? Very unlikely. If we draw that imaginary line headed SE out of Middleton, it does create a reasonably direct line to the Fish Hatchery property, but it’s about 7.4 miles distant. Quite a stretch for “a hill a mile SE of Middleton.”

MAS Meeting snapshot

March 7, 1954

“Astronomy and the Pyramids” presented by Dr. J. S. Supernaw and Ted Odell will give a short talk on the planet Uranus, 8 pm in the Washburn Observatory.

September 12, 1954

Topic of the meeting will be the June 30 eclipse of the sun. Members are urged to bring their photographs, Washburn Observatory.

The situation is muddled even more because the next mention (six months later) of the observatory drops the Middleton location and has the club discussing whether to locate it at the Dane County Fairgrounds (present day Alliant Energy Center on John Nolan Drive). This site is only mentioned this once, and then dropped, as logistics were too complicated. But the amount of detail contained in the account suggests it was a serious discussion while it lasted:

A decision on whether to build an observatory at the Dane county fairgrounds was left to the Madison Astronomical Society Friday night by the county Fair grounds committee. Asst. Dist. Atty. William Byrne said construction of the buildings would be up to the society, but the county would maintain jurisdiction of structure since it would be erected at the fairgrounds. He said the county could not enter into a long term lease of the property and it would be up to the society to decide if it wanted to turn over the building to the county. (Wisconsin State Journal, May 9, 1953)

The next time the observatory is mentioned is the following year in a brief announcement in the *State Journal*:

The Madison Astronomical Society will hold its annual picnic at 5 p.m. today in the lower field of Hoyt park. The group will wind up the affair at the new observatory off the Fish Hatchery road and Bjorksten laboratories where an election of officers will be held. (Wisconsin State Journal, June 9, 1954)

This is the first mention of Bjorksten (note correct spelling) in club records, and this announcement marks the formal appearance of what would be known as the Oscar Mayer Observatory, although it would still be sometimes referred to as the “Bjorksten site.” This hilltop in Fitchburg was to be the official MAS observatory for the next 30 years or so. In many ways it would become *the* focus of club activities. Unfortunately, there is virtually no information available on exactly how the Bjorksten site was chosen. Here’s the little we know from the 1960s history of the club written by Eduardo Neale Silva:

In 1956, through the good offices of Miss Charlotte Steward, the Society was invited to install its first building at the site of the Bjorksten Laboratories.

Charlotte “Steward” was Charlotte Stewart (see Appendix B) and she apparently worked for Dr. Bjorksten. Stewart’s involvement with the club goes back as far as 1941, when she’s listed as having served as a club officer, including two terms as president (1946-48). It’s possible that Ms. Stewart was the connection between the Society and Dr. Bjorksten but we have found no details of this arrangement. The timing of Neal Silva’s account is also suspect, his date of 1956 being about two years after the *State Journal* newspaper article above, indicating the MAS was already holding meeting events at the Bjorksten grounds in June of 1954. Based on the dates of these newspaper accounts, the Bjorksten arrangements were made sometime between May of 1953 and June of 1954. While we don’t know the precise time or exactly how the arrangement came to be, at long last, MAS had its observatory.

Correspondence from years later between Dr. Bjorksten and the MAS shed some light on the arrangements between the landowner and the Society. A 1981 letter to Society treasurer Keyes from Dr. Bjorksten’s secretary spells it out:

Usually, at this time of the year, an arrangement is made between Dr. John Bjorksten and the Society whereby Dr. Bjorksten pays the proper membership dues, and the Society pays an equal amount as rent for the land occupied here by the Society’s observatory and storage shed. Dr. Bjorksten would be happy to continue this mutually beneficial arrangement, if that is agreeable to you. If so, please send us a receipt for his 1982 dues, and we will respond with a receipt for the 1982 rent. (Ruth Lolly to Joe Keyes, December 9, 1981)

We have some cancelled checks and receipts from the period 1979-82 showing Bjorksten and the Society trading land rental fees for club membership, amounting to about \$20-\$24 a year. This arrangement likely lasted until the mid 1980s when MAS finally abandoned the site and moved south to its current observatory in Green County (see chapter 5).

As uncertain as all this was, the origins of the first observatory building erected there are even murkier. That building is usually referred to as the shed for the Steinheil refractor and was built sometime soon after MAS began using the Bjorksten property in early 1954. It had a split roof that could be retracted on rails, exposing the telescope inside to the night sky. The only direct reference found to its construction comes from a talk delivered by Junior member Tim Wyngaard in August of 1959.

In this talk, Wyngaard gives the only account of the building of the split-roof shed at the Bjorksten site. He recalls the donation by Oscar Mayer of the Steinheil telescope, and funds with which to build a suitable building, then says:

The observatory, a 12’ x 12’ building with a run-off roof, was then built, but soon fell into



The split-roof rolloff building, as it appeared around 1960. Later, as the building deteriorated, the rails were removed and it was used only as a storage shed. The building was removed from the property in the early 90s. It stands today (2021) on a member’s property in Iowa county where it still functions as a shed. Photo by Steve Bracker.

disrepair.... In the summer of 1958 the members of the J.A.S.M.W. began to repair this building. Both the interior and exterior of the building were completely painted, the telescope was put into good mechanical condition, and the roof was repaired.

Wyngaard's account is consistent with other evidence of the activity of the Juniors during that time period, but we have virtually nothing preserved of this or other activities of the club during this period in the mid-1950s.

We'll have more to say about Wyngaard in the next chapter as the focus turns to the Juniors.

4. MAS Grows Up (And Gets Younger): The Junior Society and Moonwatch 1954-1964

The club's acquisition of its observatory and putting up the first building at the Bjorksten Lab's property in the mid 1950s signaled a new chapter in the Society's story. The original members were growing older. Some had disappeared entirely or died over the 20 or so years of the club's existence. Others stayed around and assumed "elder statesmen" roles. But a sustainable club needs young members, and MAS was on the verge of taking a giant step forward in that direction.

Despite the apparent wealth of detail in the previous chapter, the 1950s represented something of a blank spot in club records. There are many things we don't know about this period. For instance, our records of club officers is nearly complete through the late 30s and most of the 40s, but from 1948 to 1957 there are many blanks, and entire years where the only entry is Dr. Huffer as the secretary. Records from that period appear to have been lost. What we do see in the late 50s and early 60s is the blossoming of a younger element of the society.

It is possible, perhaps, to gain a glimpse into MAS's activities during this period of sparse documentation through one of those younger members, a UW student named Joanna Overn. Overn's period of involvement with the group spanned the entire decade of the 1950s. She was listed in city directories from 1946-58 as a student at the UW Madison, an unusually long run as a student. Overn was very active in music, singing in dozens of church events as a soloist of some stature in the Madison area. Notably, there are two MAS events, a Christmas Party and an annual banquet, mentioned as having musical components during the years 1959-60. The Madrigal Singers performed at both, and Dr. Huffer played a piano solo at the Christmas party. It seems certain that Overn was the connection to the Madrigals.



Unknown MAS gathering on the steps of Washburn Observatory, probably around 1952. Joanna Overn is the woman at the center of the photo with light-colored button down coat. Photo is of unknown origin, provided by Dave Weier.

The 27 year old Overn was elected MAS's president in June 1951. She only served a single term but as noted above, her involvement went on for years. She delivered at least three talks at MAS meetings between 1950-54, and also gave talks to outside groups like the YWCA. In 1952 she was quoted in a newspaper article talking about the Society's need for its own observatory. One of her talks at an MAS meeting, in November of 1954, was particularly notable given our current focus on younger members. At this meeting, Overn presented a talk on the topic of the US Naval Observatory. Her co-presenters were Thomas Stavrum (mentioned above as the head of the observatory committee) and Teddy Odell, a 10th grader at West High School. Little is known of young Odell but this was already his third talk to the Society going back to the previous year. He spoke on eclipsing variable stars while Stavrum talked about irregular variables.

Birth of the Junior Astronomical Society

The importance of young people was understood as early as 1935 when Dr. Supernaw said MAS was "considering a junior club to take care of the growing interest among astronomy students of the vocational and city schools." Nothing more was said of this and there is no evidence that a club for juniors was ever started. There is no record of any effort in this direction until Overn and then Odell appeared in the early 50s. In many ways, the Juniors would dominate the club for the next 25 years.

Teddy Odell's involvement as a teen was brief but the fact of his presence, along with Overn's selection as president, proved to be just the first shot fired by the emergent Juniors. A few months after Odell's final appearance a newspaper announcement in March, 1956 contains the first-ever mention of the Junior Society:

Madison Astronomical Society: 8 p.m., Washburn observatory; organization meeting for the junior unit at 7:30 p.m. (Wisconsin State Journal, March 14, 1956)

Other references to the Juniors would come fast and furious over the next couple of years. In fact, for the three years starting in 1957, newspaper mentions of the Juniors outnumbered mentions of the MAS itself. While Teddy Odell doesn't appear to have been a moving force of the Junior Society, that role may rest with a fellow West High student who came along a few years later. In September of 1956, West sophomore Tim Wyngaard gave a talk to the Junior Society. His topic was the planet Mars. This is the first of several newspaper mentions of Wyngaard, and the second for the Junior Society. In a second talk to the Juniors in July of 1957, Wyngaard notes that the JAS membership is up to 26 students. The following year (April 1958) the State Journal ran a feature article with a picture of many happy kids and adults posing with telescopes, apparently at a public event. The headline, "Sputnik Sparks Astronomy" was heralding the arrival of a youth astronomy movement in Madison:

Those sensitive little barometers of things to come, the youngsters, are creating a growing demand for such items as telescopes, missiles, satellites, and rocket ships (Wisconsin State Journal, April 21, 1958)

Wyngaard gets three mentions in the article, and is included in the picture of the happy group. He is also quoted again about his confidence regarding the future of the Junior group:

Wyngaard, 16... said "We expect the membership of the Madison Junior Astronomical Society to grow from 32 to 50 members by June." (ibid)

Wyngaard's optimism about the Juniors was boundless, and would surface again. And with good reason. Wyngaard was about to embark on an almost unbelievable astronomical adventure. In August of 1959, the 17 year old (soon to be) senior in high school was selected by the National Academy of Sciences to join a month-long expedition to the Canary Islands to view the October 2nd total solar eclipse. Wyngaard's selection for this honor appears to have been based in large part on his leadership with the Madison Astronomical Society, in particular, the rise of the Juniors. Wyngaard's father was a journalist of some prominence in Wisconsin, which may have helped the youngster secure an invitation to document his trip in the *State Journal*. His columns appeared in the paper throughout September and October, including an account of a stop at the White House to meet with President Eisenhower's science advisor George Kistiakowsky (*State Journal*, September 11, 1959). Wyngaard doubtless became something of a local celebrity due to this honor and the attention it garnered.



Tim Wyngaard (left) and John Potter (3rd from left) with some of the other Junior Society members at a public event. *Wisconsin State Journal* Photo, April 1958.

At about the same time the plans for his trip to the Canary Islands were coming together, Wyngaard gave a talk at an amateur astronomer's convention in Denver, CO. His talk was entitled "The Oscar Mayer Observatory of the Madison (Wisconsin) Astronomical Society." By the time of this talk in late August, 1959, the agreement for the donation of the Student Observatory had been secured and MAS members and Juniors were busy digging footers and preparing for the move, but the building wouldn't actually be moved until the following summer (see pages 23-24). Wyngaard's talk at the Denver conference was mentioned in the previous chapter as the sole source of information for the origins of the shed at the

Bjorksten property, the club's new observatory property. The balance of his talk laid out a course for the Junior Society for the next several years, and it reads like the starry-eyed ambitions of a young man full of confidence and bursting with plans for the future. Unfortunately, virtually nothing Wyngaard envisioned for the Juniors ever came to pass. The Student Observatory was indeed moved in the summer of 1960, an immense project that we'll discuss in detail soon. The move happened just after Wyngaard would have graduated from high school. If he played a role in the move that summer, no record of it remains, and Wyngaard's name never appears in MAS documents again. Presumably he went on to college and developed other interests.

It is clear that the 1950s marks the dawn of a much younger Madison Astronomical Society, as the stories of Overn, Odell, and Wyngaard attest. The level of their activity and commitment was only beginning to unfold. That portion of the story requires introducing two new elements of the MAS narrative that will carry the account forward, well into the 1960s. Those two elements are Project Moonwatch and the club's acquisition of the university's Student Observatory, which would be moved out to Bjorksten Lab's property and complete the Oscar Mayer Observatory. These two episodes proceeded almost simultaneously, but for purposes of the narrative, we'll split them up here and consider Moonwatch first.

Project Moonwatch

The 1950s was the age of backyard bomb shelters, civil defense newsreels, and fears about the evil intent of the Soviet Union. While school children practiced duck and cover drills, US military authorities started training citizens in a program called Ground Observer Corps, teaching them to spot inbound Soviet bombers. Capitalizing on the popularity of amateur astronomy, Project Moonwatch expanded the idea into the realm of outer space. Thought influencers of the 50s warned us that if Soviets could put satellites into orbit, they could rain atom bombs down on our cities. In the days before trillion dollar defensive programs, human observers were not only plentiful, they were cheap. Harvard astronomer Fred Whipple proposed the idea of teaching amateur teams of observers all around the world to track satellites, time their passes, record location and direction data, and report it all back to the computer center in Cambridge Massachusetts so defense officials would know what was up there. Project Moonwatch was the first real citizen science project, years before Galaxy Zoo or SETI@Home.

Moonwatch was already well underway in the late 1956/early 1957, but the October, 1957, launch of Sputnik stunned the world, and especially the United States, which had yet to achieve any success in their nascent space program. In the wake of Sputnik, the US space program was galvanized, and hoards of amateur Moonwatchers were swept up in the excitement of tracking artificial satellites in low Earth orbit, hoping to make a contribution to the defense of the nation.



Steve Bracker (at the scope) and Mort Newcomb posing for a photograph in their Moonwatch digs at the Oscar Mayer Observatory. This is the inside of the shed shown on p. 18. Wisconsin State Journal photo, September 9, 1960.

Around 1957, two MAS members were at the center of Project Moonwatch in Madison. They were Morton Newcomb, an architect with an unquenchable thirst for gadgetry, and Margaret "Peg" Frisch, a UW graduate student working toward her Ph.D. in chemistry. Frisch, fascinated by astronomy since she was a young girl, had joined a Moonwatch team in Rochester NY around 1956 while a senior in college. Upon arriving at the UW, she heard about the Madison Astronomical Society and soon met Newcomb, who would become president of the Society in 1958. Exactly when Frisch and Newcomb initiated the Moonwatch program within MAS is not known but it appears to have been up and running by December 1958, when a *State Journal* article reports on Newcomb communicating with the Smithsonian Astrophysical Observatory regarding the expected reentry parameters of Sputnik 3. Though the article doesn't mention Moonwatch by name, all the parts are there.

Newcomb and Frisch's team was significantly upgraded by the the entry of two high school students around this time, Steve Bracker and John Rouse. Bracker (pronounced "Brocke") came first, joining the MAS team around 1957. Rouse, two years younger, arrived in the spring of 1959. Though separated by two years in age, they both joined MAS as 15 year old high school freshman. Bracker attended Madison East, and Rouse Madison West. Both boys learned about and entered the club via the senior society meetings, but quickly fell in with Newcomb, Frisch and Moonwatch, so both recall very little of the Junior Society. Newcomb and Frisch were both doing some astrophotography, which was a big draw for Bracker. For Rouse, it was the fact that computers and programming were involved, and here Frisch led the way. This was heady stuff for high school kids in the late 50s. Before long, both boys were so involved in satellite tracking and working at the Bjorksten site that the details of other MAS activities faded to the background and failed to make much of an impression.



John Rouse, giving a youngster a peek through one of the Moonwatch scopes. Steve Bracker photo, probably late summer of 1960.

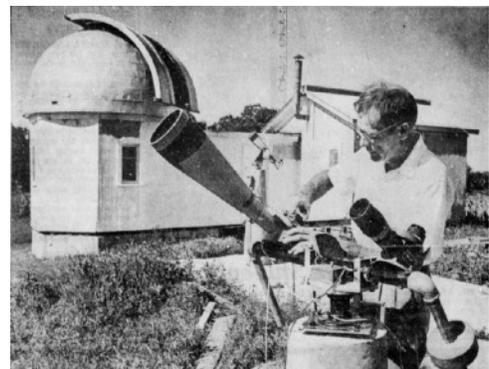


Peg Frisch watching satellite predictions print out on the IBM 650. Steve Bracker photo, fall 1960.

The Moonwatch location, of course, was the property at Bjorksten. Since the acquisition of the land in 1954, MAS had erected a shed on the property to store the Steinheil refractor. The shed had a retractable split-roof that could be winched open to expose the telescope to the sky. But by 1958, the building was already beginning to show signs of age and sketchy construction. The Bjorksten site, thanks to the donation of the Steinheil and the cash, had been rechristened the Oscar Mayer Observatory (most often referred to as the OMO). After the Moonwatch program got up and running, Newcomb, Rouse and others built three additional concrete platforms nearby with reinforced concrete piers on which to mount the Moonwatch scopes: Apogee telescopes and war-surpluses M-17 tank spotter scopes. For them, the OMO was Project Moonwatch. MAS was an afterthought. The whole experience was especially formative for the two boys, likely informing decisions they were soon to make about their academic and career directions.

Bracker recalls that some of the MAS old guard found the "young turks" to be a bit of a bother. The boys' penchant for packing in the electronics and running rat's nests of wiring all over may have shocked the conservative sensibilities of some older club members. But the Moonwatch gang was on a mission and there was little chance of deflecting them from their path. Dr. Huffer, always a champion of outreach and education, was delighted by the observational and technical accomplishments of the Moonwatchers and was extremely supportive of their efforts, especially the youngsters. In the MAS, the support of Dr. Huffer could cover a multitude of youthful exploits!

Moonwatch activities were a dominant theme for the club for about 5-6 years. By 1964 though, things were clearly winding down. Though the military's reliance on the amateur network had diminished as their own satellite tracking abilities improved, the amateur networks had hung in there. This stuff was engaging and fun. But time rolled on and MAS Moonwatchers began to drift away. This is consistent with an observation by Bracker that things were on a downhill trajectory by then: Frisch had finished her degree in 1962 and moved on. Rouse and Bracker had graduated from high school and were increasingly busy with college and their adult responsibilities, and Newcomb slowly migrated to other diversions and disappears from the record. The boys described him as a serial hobbyist and think he probably



Mort Newcomb with the Moonwatch telescopes set up on the piers outside the Oscar Mayer Observatory in Fitchburg. October 1963 Wisconsin State Journal Photo.

moved on to other interests. As one of his last official Moonwatch acts from Pasadena (he was beginning his third year at Caltech and knew he wouldn't return the following summer), Rouse put together a notebook with all of his tables, articles, hints, tips and techniques and sent it back to Madison for the younger Junior Society members. He included typed notes sprinkled with hand-written reminders on procedures, gadgets, trouble-shooting tips and finally, his address and phone number at Caltech. It was his attempt to pass the torch to the next generation.

Back in Madison, the Junior Society continued and even published its own newsletter for a few years in the mid-60s. We have issues from March 1964 to December 1967. But project Moonwatch is never mentioned. Without Rouse, Bracker, Frisch and Newcomb, the project had reached its conclusion in the MAS.

5. Growing and Growing Pains: The Oscar Mayer Observatory And the Juniors, cont. 1960-1972

At the same time Project Moonwatch was ramping up, the Madison Astronomical Society was handed an irresistible opportunity to expand the Oscar Mayer Observatory, this time courtesy of the University of Wisconsin astronomy department.

UW Student Observatory Donation

The UW had operated its Washburn Observatory on campus since 1878. In 1880, director James Watson announced his plan to add a smaller building intended to give students a place to practice their observing skills, keeping the larger instrument free for professorial research. The smaller building was completed in 1882, located just east of the main observatory. It was called the Student Observatory, and remained in place nearly 80 years.

By the late 1950s, the explosive growth of Madison had marginalized the value of the Washburn Observatory. Light pollution and a smoky haze made observations from the hill increasingly difficult. The astronomy department had been moving much of its serious research to other facilities for years, including its own new observatory at Pine Bluff, WI, about 13 miles west of Madison. The Student Observatory had ceased being useful as a teaching tool many years before and the telescope had been removed. It was now used primarily as storage for the storm windows for the observatory director's house. Big changes were afoot. Though the 15.6 inch Clark refractor would remain in the main Washburn building, the building itself would soon become the new home of the Humanities Research Institute and the astronomy department would move its offices to the newly renovated top floors of Sterling Hall. It was time for the little Student Observatory to go.



UW Archives photo of the Student Observatory prior to its move in 1960. Date of photo unknown. Lake Mendota visible in the background.

A March 7, 1959 UW press release is the first reference to the donation we have found, and it specifically singles out the MAS Junior Society:

MADISON—The student observatory which has aided University of Wisconsin astronomy studies for 79 years may become the property of Madison's young stargazers if a Board of Regents request is granted.

The press release goes on for a page and a half, and quotes Dr. Huffer several times, suggesting that he was the impetus behind the donation of the building to the club:

In a resolution Saturday, the Regents asked the State Legislature to empower them to give the 45-foot, domed, wooden building, situated just east of the Washburn Observatory, to the Madison Astronomical Society. The gift would benefit the junior members, known as the Madison Junior Astronomical Society. Both amateur groups have enjoyed close ties with the University's astronomy department and Washburn Observatory. The department has encouraged and actively helped their interests. Prof. C. M. Huffer has been the long-time secretary of the senior society.

The legislature soon acted to authorize the donation and the deal was sealed later that summer. However, the building wouldn't be moved until the following summer, 1960, because there was a lot of work to do. A July, 1960 *State Journal* article covered the first part of the move, and singled out the Juniors again:

The old observatory will be reassembled for use by the Junior Astronomical Society of Madison, the junior affiliate of the Madison Astronomical Society. Most of the work preparing the unit for movement and reassembling it will be done by the junior astronomers themselves. (Wisconsin State Journal, July 20, 1960).

Rouse, Bracker, and a few other juniors, along with Frisch and some of the adult members threw themselves into the work of preparing the new site at Bjorksten/OMO, and getting the building ready for moving. Architect Newcomb was the mastermind of the whole operation.



Preparing the Student Observatory for the move. John Rouse is leaning out the window. The unknown boy on top is sawing into the eaves of the building, the tip of the saw just visible under his left sneaker. An iron breaker bar can be seen leaning against the building at lower center. Taking most of two summers, the prep and the move created many blisters and indelible memories for the kids involved.

It's difficult to grasp what a monumentally large operation this was. The Student Observatory was not a small building, as the photo above attests. At the site on observatory hill, the foundation needed to be

exposed so the tie-down bolts could be severed (a lot of digging and eventually an acetylene torch operator was needed). The building's original construction seemed to have been done with eternity in mind. The bolts were embedded from the bottom in a masonry foundation, then 4x8 boards were overlaid with chiseled holes to accommodate oversized square nuts. The building's construction was replete with sturdy tongue and groove and mortise and tenon joints, all finished with vintage nails that had been forged by blacksmith, one at a time. The entire 45 foot long *building* needed to be sawed in half so it could be moved as two parts (three including the dome). Rouse and Bracker spent most of that summer sawing, digging and breaking rock.



Peg Frisch and Mort Newcomb preparing the forms for the observatory platforms at the OMO/Bjorksten site. Steve Bracker photo.

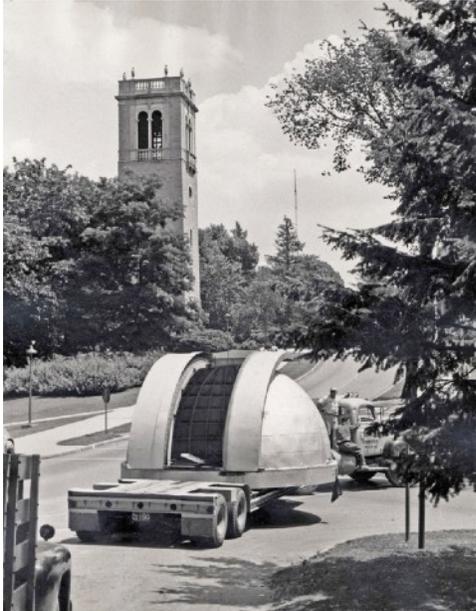
Over at the Bjorksten site, a new foundation needed to be built on which to place the building: trenches had to be dug, concrete footings poured, and tons of block laid. Newcomb, providing supervision and direction for the whole job, had already surveyed the land at Bjorksten. But this was a job requiring precision, so he dispatched two of the boys to the campus to find the original blueprints. They prowled

construction archives, talked to UW maintenance crews, and searched through historical records, all without success. They finally found an old timer in the astronomy department who told them they'd never find the blueprints, because they never existed. Rouse recalls the old timer telling them:

in those days the person with the money would just scratch an outline in the dirt with the tip of his cane, and the contractor would take it from there. (Rouse, personal communication)

Newcomb carefully measured the old building and drew up a set of blueprints to help with the staking and digging at the new site. Because the architectural paper he used was virtually transparent, it could

be read from either side. Someone misread the labeling for “top” and staked out the site at Bjorksten with the plans flipped over, so the entire staking job was mirror reversed. Luckily, the error was caught before the digging began.



Moving day for the student observatory, July 19, 1960. A procession of three flatbed trucks and trailers turning right from Observatory Drive onto Charter St. with the Carillon Tower visible beyond. UW Madison Archives.

And all this was just to prepare for the move. Moving day arrived with the trucks, cranes and crews. The pieces were successfully lifted, loaded and transported to Fitchburg. After the building was carefully placed on the new foundation, it needed to be reattached and fully refurbished, weatherproofed, and painted. And this is to say nothing of the interior refurbishments and repairs that were necessary, including the pouring of the new telescope pier. Needless to say, this was a huge undertaking for a few high school kids and a couple of adults supervising.

The move and all the preparations must have been expensive, but no account is given of the cost. The few times money is mentioned seem only to refer back to the Oscar Mayer donation eight years before. It’s conceivable that the original \$2,000 covered the construction of the shed for the Steinheil and the preparations and moving of the Student Observatory. It’s also possible that Oscar Mayer (or others) may have donated additional funds to pay for this undertaking, but we have no record of it. It’s clear that many entities were interested in seeing this happen. The astronomy department and Dr. Huffer, the UW Regents, the legislature, and the sheer will of a youthful segment of the club were all working in harmony. Money was not going to be an obstacle.⁵

Whatever the final details, the Oscar Mayer Observatory, sitting on Bjorksten property in Fitchburg, was finally complete. The MAS now had a proper observatory of its own, with a beautiful domed building on a hill south of town.

Since the university’s astronomy department had moved out of Washburn Observatory, so did the bulk of the Society’s monthly meetings. By April, 1959, the monthly meetings had switched to Sterling Hall and virtually all club observing activities now happened there or at Bjorksten. The term “Oscar Mayer Observatory” was first used in a newspaper account in June of 1960, a month before the Student Observatory was moved. After that, the property is usually referred to with its new proper name, or sometimes the “Mayer Observatory” and occasionally (though decreasingly) the Mayer Observatory at Bjorksten Labs. The more informal “OMO” was used often inside the club but never appeared in press or public accounts.

MAS and the Junior Society after Moonwatch

As noted above, the late 50s and much of the 1960s represent a gap in our documentation of the activities of the MAS. We lack a full record of who the officers were and don’t know the content of many of the monthly meetings. One can get an idea of how much the Project Moonwatch personnel and activities dominated the club by looking at the available information on meetings between April 1960 and the end of



The rechristened Oscar Mayer Observatory, on the hill at the Bjorksten property in Fitchburg. 1973 photo by John Rouse. Note the conical concrete pier at right, built by the Moonwatch crew.

⁵ For a more complete—and amusing—report on the move of the Student Observatory, see Appendix C, written in 2020 by John Rouse.

1963. For that nearly four year period, we have records from about 20 MAS meetings or events. Nine of them are either directly related to the Moonwatch program, or are by the principle Moonwatch members. Meeting topics included general programs on satellite tracking or a specific look at the Echo program, a presentation by UW chemistry professor John Margrave (likely invited by Frisch since Margrave was her thesis advisor), and presentations on astrophotography by Frisch, Bracker and Rouse. It was also during this period that the *State Journal* did a feature article on Moonwatch featuring Mort Newcomb.

We have no record at all of club leadership during the period from 1952 (when Joanna Overn's term ended) until 1957. From 1957-64, the presidency was held by a series of people about whom little is known, with the exception of Mort Newcomb for the year 1958-59. This sparse period coincides with rise of the Juniors, the Moonwatch years, and the move of the OMO to Fitchburg.



A Junior Society star party at the Oscar Mayer Observatory sometime in the early 1960s. The boy leaning over the table is almost certainly Steve Bracker. The boy facing the camera on the left may be Chester Rideout, a fellow Junior from West High School. Others are unknown.

During the period of July 1964 through September 1967, we have documentation of at least nine star parties scheduled or held at the Oscar Mayer Observatory, all of them co-sponsored by the Junior Society. A note in the club minutes from September of 1964 notes that a star party was held approximately every two weeks over the summer "with good TV coverage on one evening." During the same period, meeting minutes show ongoing programs of guest speakers both from university professors as well as club members. Ed Baillie was evidently planning the speakers at this time while former president George Harris was heading up work at the observatory, mostly doing maintenance work on the mount. The telescope that had been mounted in the OMO since its move from campus had been the six-inch reflector belonging to Peg Frisch. She left it there for two years after finishing her Ph.D. while she

was in Ireland doing a post-doc. In 1964 Frisch passed back through Madison to reclaim her packed belongings, including the six-inch reflector from the Oscar Mayer dome. The club soon installed a ten-inch scope there. It is believed (but not known for sure) that this was the "square-tube" reflector that the club had owned since 1952. It is this square-tube reflector that is remembered by members from the late 60s and 70s though no pictures survive. The 10-inch scope would be nicknamed "the Monster" by the Juniors because it was very temperamental and hard to operate. It would finally be replaced by a newer and larger reflector in the late 1970s.

For the second half of the 1960s the Juniors soldiered on. Though the glory days of Moonwatch were over, the junior club seemed to thrive for a few more years under the leadership and influence of the Gladstone brothers (David and Donn), Eric Thiede, Wynn Wacker, Cynthia Karp and a few others. They published a club newsletter, *Star Trails*, of which 10 issues survive. As we've seen, the Juniors held star parties, but they did much more. They met regularly, hosted picnics, invited guest speakers, held observing sessions, and more. As the mid 60s passed and some of the more influential members began to graduate from high school and move on, the influence of the club gradually waned. *Star Trails'* editorial page contained pleas for members to pay their dues and attend meetings, as well as urgent requests to write articles. At one point there is even a stern reprimand to members for failing to attend the invited address of the club's main adult sponsor, Ed Baillie. Though Baillie was well into his 60s by then, he was described by many as the heart and soul of the Juniors. He was a mentor to many over the years, and is remembered for his big heart and willingness to help the kids out in any way that they needed, but to get out of the way and let them blaze the trail too.

The 1960s concluded with Ted Wysocki as president of the club for four years, followed by Helmut Prah for four years, ending in 1972. At the same time Ed Baillie was mentoring the Juniors, Art Koster and Jon

Buschke were reflecting a new trend among members' observing practices. Koster and Buschke had impressive home observatories. Koster's was in his backyard, and architect Bushcke's was actually incorporated into his home in a custom plan, which he designed and built himself. With these self-owned facilities, members seemed less reliant on the Oscar Mayer Observatory in Fitchburg and its aging telescopes and buildings which needed almost constant maintenance. The end of the 60s seemed to mark a time of the club serving more of a social role than a scientific one for many members. Membership was modest around this time, and in fact, the club experienced a bit of an existential crisis as the 60s ended with membership declining so precipitously at one time that discussions of the causes of the decline and possible solutions dominated club meetings. Two meetings in particular, January and June of 1970, had a tone of desperation about them. The club was having problems attracting speakers, getting members to provide hosting duties and refreshments. Membership and attendance was falling. One of the issues discussed was the difficulty of parking on the UW campus. Meetings were had been held in a classroom in Sterling Hall since the move out of Washburn ten years before. The club seemed reluctant to give up this venue out of deference to the patronage of the astronomy department, and the convenience of its frequent guest speakers, the professors and graduate students.

The club was soon have the meeting location decision forcefully made for them. Throughout 1970, campuses across the nation were increasingly seeing demonstrations and unrest as a result of Vietnam war protests. The May 1970 MAS meeting was cancelled "due to the unquiet state of the University of Wisconsin campus." A few months later, on August 24, a bomb exploded in the basement of Sterling Hall. The attack was intended to destroy the Army Mathematics Research Center (AMRC) which was housed on the 2nd to 4th floors, and to cripple the University's ability to support the defense department in furtherance of the unpopular war. The blast caused extensive damage to Sterling and to surrounding buildings. One physics researcher died in the attack and several others were injured. Sterling Hall would be closed for an indefinite period and MAS was now forced to find other quarters to meet.

For the next two decades MAS would return occasionally to Sterling (the building would be partially reopened by the middle of 1971) but meetings did in fact move off campus and would be held at a variety of venues around Madison, including a series of churches, bank meeting rooms, rooms in Union South, members' homes and the Oscar Mayer Observatory. This situation would continue until the 90s, when the Society and the University would join forces again (see chapter XX).

While the Junior Society had finally been retired for good, MAS juniors had another incarnation remaining in the form of a Boy Scouts of America Explorer Post, which will be a big topic of the next chapter.

6. The End of the Beginning: Explorer Scouts and Farewell to the OMO (1970s - 1985)

Last gasp of the Juniors: The Explorer Scouts in the 70s. Life in the club. Moving to yet another observatory.

Appendix A: Neale Silva's "History of the MAS"

(This unsigned and undated history has floated around the club for years, and until the current effort, it was the authoritative account of the club's history. In 2020, the daughter of a previous member donated a box of materials from her father. Contained inside was a copy of this document with an authorship note at the top, so we now know it was written by member Eduardo Neale Silva sometime between 1962 and 1964.)

THE MADISON ASTRONOMICAL SOCIETY, INC.

The earliest plans for the creation of an Astronomical Society in Madison can be traced back to October, 1930, when Mr. William R. Binney and Mr. John M. English discussed their common interest in lens grinding and observing as well as the possibility of attracting other would-be astronomers to probe the mystery of the stellar world. Soon after Dr. C. M. Huffer, a member of the Astronomy Department of the University of Wisconsin, who knew about Dr. Binney's hobby, was invited to dinner by Dr. J. S. Supernaw, a prominent Madison physician. The host, as it turned out, was also interested in amateur astronomy. Ideas were exchanged and finally, early in 1931, the Madison Astronomical Society was actually launched through the combined efforts of the four pioneers and a few friends.

After a year of informal meetings at various places (a private garage, the Madison General Hospital, the Forest Products Laboratory, the University Extension Division, et al.,) the Society became the protegee of the Astronomy Department and met at the Washburn Observatory until June, 1959; since September, 1959, when the Astronomy Department moved to its present quarters, all regular meetings have been held in room 6515 Sterling Hall.

The Madison Astronomical Society had ambitious plans from the very beginning. In May, 1935, under the presidency of Dr. J. S. Supernaw, it began to publish monthly *The Madison Bulletin*. Vol. I, No. I announced in all candor: "Contributions are solicited but cannot be paid for." That very same month and year the Society joined forces with the Milwaukee Astronomical Society, the Missouri-Southern Illinois Observers and the Amateur Telescope Makers of Chicago and began to publish a mimeographed bulletin called *Amateur Astronomy* which was sold, like the *Bulletin*, for the awesome sum of ten cents a copy.

Under the impetus of several lecture series on astronomy organized by the Extension Division the Society flourished and on September 12, 1956 it celebrated a quarter century of existence at its first meeting of the 1956-57 season. Mr. John M. English, who had been one of its most devoted members, then read a paper entitled *History of the Club*.

For many years the guiding spirit of the organization was Dr. C. M. Huffer, who virtually became the permanent secretary until the summer of 1959 when he was elected president. With the cooperation of his gracious wife, Dr. Huffer drew up a constitution, scheduled programs, promoted various projects and attracted new members. Dr. and Mrs. Huffer moved to San Diego, California in the summer of 1961.

In 1956, through the good offices of Miss Charlotte Steward, the Society was invited to install its first building at the site of the Bjorksten Laboratories. In 1960 two units were given to the Society by the State legislature -- the old University observatory and transit room. This double structure was moved to its present location in the summer of 1960 with the financial support of the Oscar Mayer Company of Madison. In recent times the building has been repaired, repainted and insulated.

On December 15, 1962 the Society became officially incorporated under the presidency of Mr. George N. Harris.

The Society has both regional and national affiliations. The North Central Branch of the Astronomical League, to which our organization belongs, was created primarily through the efforts of two members of the Madison Astronomical Society, namely, Dr. C. M. Huffer, who was chairman at the organizational meeting (St. Paul, Minn., Aug. 7, 1947), and Mr. Harold B. Porterfield, who acted as secretary. Mr. Porterfield wrote the first constitution for the region and later became chairman of the North Central Branch for three years. In 1954 the Society co-sponsored the national convention of the Astronomical League (July 2 - 5) and four years later, under the presidency of Mrs. Charles E. Hemingway, it organized and sponsored the regional meeting of the North Central Branch (May 21 - 22, 1960).

The members of the Society are people representing a wide variety of interests: business men, state employees, professionals, retired "young men and women", teachers, housewives, and students from both college and high school circles.

No special preparation is needed to join its ranks. The only requirement is a genuine interest in all phases of astronomical observation and study. The annual fee is \$2.00 a year per family. The Society encourages the cooperation of its members but never requires it officially.

The members of the Board of Directors are seven in number : president, vice-president, secretary, treasurer and three directors. The Society also has several standing committees whose function is to expedite business and social matters with minimum impositions on the members of the group.

The Society meets once a month between September and June on the second Friday of the month. The meetings are held at 8:00 p. m., either at 6515 Sterling Hall (under the auspices of the University of Wisconsin's Astronomy Department), or at the Oscar Mayer Observatory, the Society's official residence, located at the Fitchburg Research Park (Bjorksten Laboratories), on the Fish Hatchery Road.

Two highlights of the Society's activities are the yearly banquet in the spring and the annual picnic in June. The regular programs include formal lectures by experts, viewing and discussion of films, and informal talks and reports by the Society's members. Of particular importance are the star parties held at private homes or at the Oscar Mayer Observatory for the purpose of observing or instructing new members and visitors in the use of astronomical equipment.



The society now operates a 6 inch clockdriven reflector, a variable frequency oscillator, three astrocameras (7 inch, 12 inch and 24 inch focal length), five apogee instruments (SAO Moonwatch), and timing equipment.

Among the Society's plans for the immediate future are the installation of a four and one-half inch refractor donated by the Oscar Mayer Company, and the erection of a ten inch reflector and mount. The Society also owns one 6 inch and two 10 inch mirrors, which will become part of the equipment to be used by members on a loan basis.

The Society has grown into a double group of amateur astronomers -- the Junior and Senior Divisions.

JUNIOR DIVISION

The Junior Division, composed of enterprising young "astronomers" of high school age, has functioned under the guidance of Mr. Edward P. Baillie, senior member advisor. It meets regularly and schedules its own special activities. Among these have been the publication of a mimeographed bulletin, Star Trails, the drawing up of questionnaires on astronomical matters, and the organization of educational programs to provide school children from the fourth through the eighth grades with an opportunity to observe the skies

SENIOR DIVISION

Among its outstanding activities are the preparation of timely articles for local news- papers and the tracking of visible satellites. The team predicted on the UW extra fast CDC 1604 computer many visible passes; it also developed techniques for photographing satellites down to 8th magnitude (astrophotography projects, 1961-62). Several of its members own professional or semi-professional telescopes and at least two have their own private observatories.



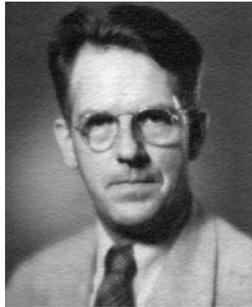
How To Reach The Oscar Mayer Observatory (M. A. S., Incorporated)

1. Go to Park Street
2. Follow Fitchburg Street and Fish Hatchery Road
3. Turn left at the Bjorksten property

Our meetings are open to the public. All people -- young and not-so-young -- are invited to join! For information on membership, call the Society's president:

Appendix B: People

Baillie, Edward P. (1903-2000). Baillie's run as a 50+ year member is the longest on record. His first mention in club documents is in the meeting minutes from Feb 1939 where members discussed their ideas of the origins of the universe. Baillie first served as a member of the board that same year as director at large. He would serve on the Board many times over the following 30 years, including a term



Ed Baillie in an undated photo (provided by his family).

as president in 1949. Though Baillie's peak active years seemed to come to an end in the early 70s, he still appeared on the membership roster in the late 1990s. Club minutes and notes record at least ten times when he spoke at meetings on astronomy topics. Many more times he organized, hosted, or otherwise presided over club activities. Baillie was a water chemist heading up the Nine Springs water treatment plant in Madison. He was passionate about the science of his work and was always eager to see what new surprises would be found under the gaze of the microscope. His science interests extended to all aspects of astronomy. He would set up his hand-made telescopes in his driveway or across the street from his home at Forest Hill Cemetery or occasionally up the hill at the Madison reservoir to get a better view. Nothing delighted him more than when a neighbor or passerby would stop and ask for a peek. Baillie played a role in helping the club acquire the land for the OMO

observatory in the 50s and later the YRS facility in the 80s. He was also the adult responsible for much of the youth involvement in the club in the 1960s. Some older members remember Baillie boasting that he is one of the few people to have seen Halley's Comet twice, a circumstance certainly made possible by his lifespan. (This sketch borrowed heavily from Wynn Wacker's article in the April 2000 issue of *Capitol Skies*).

Baird, Parker K. (1892-1957). Baird is another member who goes back nearly to the beginning, but very little is known of him. He worked at the Forest Products Laboratory, possibly as a chemist. The first mention of him in club documents is April 1936 during an outing to observe a meteor shower. Baird was listed as leading the club's "meteor section." He appears in club records as having given four talks between 1938-41, the first of which was of a visit he made to Arizona's Meteor Crater. Baird served on the MAS Board twice, 1937/38 and again in 1940/41. After that, he disappears from MAS records. He died of cancer in April of 1957. His obituary noted that his wife had died of a heart attack just days earlier. Probably related, a newspaper item from five days before Baird's death noted a suicide attempt. A tragic end to the life of a club member.



Parker Baird, photo from WSJ obituary, April 1957.

Binney, William R. "Bill" (1897-1971). Binney was the group's second president, serving from 1936-39. He also served other roles on the Board of Directors though about 1945. Binney spent much or all of his career as a machinist at Gisholt Machine Co., testing the balance of airplane propellers. He worked for years as an election clerk in Madison and was very active in the Catholic Church Youth Organization (CYO) and the Knights of Columbus. He acted in some plays at the Madison Civic Center and may have known Leslie Ketchum from there. He was an avid photographer later in his life. There is also mention of him as a "guidance officer" at Wisconsin State Prison at Waupun. In addition to his mention as a founding member of the MAS, he seems to have been very involved in amateur telescope making.

Birner Carey, Paula (1901-1993). Though never explicitly mentioned as a founding member of the MAS, Paula Birner's influence and fingerprints are all over the early years of the club and indeed, all over the early years of amateur astronomy from Madison to Racine. Her name is occasionally misspelled in "Berner" or "Birney" in club documents. Birner had a distinguished career as a primary grades teacher and was active in PTA and teacher union activities as well. In addition to astronomy, she enjoyed writing and painting. Birner was born in LaCrosse in 1901 and earned a degree in education from the LaCrosse



Paula Birner, yearbook photo, LaCrosse Normal School, 1924

Normal School (later UW LaCrosse) in 1924. Her whereabouts for the next 10 years are not known but in September 1934 she arrived in Madison as a new teacher at Lapham Elementary School. Her position was the “Nature Studies” teacher. This position was most likely a “special” like music or art, taken by all students, focusing on the science of the natural world. Birner Carey also taught high school-level chemistry and physics in Random Lake, WI in 1943. In 1944, she was married to Orville Carey in Madison, but Carey died four years later, in 1948. Paula kept the name “Carey” for the rest of her life, though she sometimes went by Paula Birner Carey. After her stint in Madison, Birner Carey taught for a time in Middleton and McFarland, and in 1951 moved to Sheboygan for a year, and then to Racine where she taught for the rest of her career. Her retirement date is not known.

Returning to the birth of the Madison Society, Birner Carey was one of those who was present before the beginning. In the fall of 1934, she was on WHA radio in Madison doing programs in astronomy (“Watchers of the Sky”). This same talk was repeated on a Stevens Point radio program a few months later. The radio addresses may have turned into a repeating gig since additional references to talks on WIBA are seen later in 1935. Her name shows up frequently as a participant in MAS meetings for the next few years, delivering many of the featured talks. In February of 1938, the *Wisconsin State Journal* ran the first of a series of columns on astronomy. It is titled “The Most Brilliant Stars” and it opens

February has the distinction of having the greatest number of brilliant stars—eight of the twenty brightest stars...First in importance are the two first magnitude stars in Orion. Betelgeuse, the famous flame-colored giant in the upper left hand corner of the four sided figure is variable...

and goes on from there to give her readers a tour of the winter skies’ most observable constellations. Writing such pieces about the night sky require a sound knowledge of the sky, a keen grasp of the literature of sky-lore, and a penchant for sharing. The author was, of course, Birner Carey and she clearly had all three. These articles never mention Madison’s burgeoning astronomy club, but MAS could scarcely have had a better spokesperson. Birner Carey’s articles read much like the later work of astronomy writers such as Leslie Peltier and Walter Scott Houston. Over the next year and a-half, Birner Carey would pen ten more such columns for the *State Journal*.

After moving away from Madison in the early 50s, Birner Carey eventually settled in Racine and continued to build her career as an educator. But her love of the stars was never far from her imagination. In August of 1956, she wrote a letter to the editor of the *Racine Journal Times*, expressing interest in seeing an astronomy club start in her new hometown:

Here I sit with a six-inch Newtonian reflector telescope, another mirror to be mounted, a certain measure of astronomy know-how, unbounded enthusiasm, a backyard near the park with that essential unobstructed view of the sky—and nobody or almost nobody to play with.

It would be nice to meet some other star gazers—amateur astronomers, that is. If they know lots about telescope-making or the sky, wonderful. If they know nothing about astronomy but have a great curiosity, good. I can impart some of my know-how—and feel important at the same time—and then we can learn some more.

Somewhere in Racine, or thereabouts there must be kindred souls. Wish they would communicate with me. We could form a club and have some fun!



Paula Birner Carey, WSJ Photo run with marriage announcement, 1944

She was successful. An astronomy club was born in Racine and grew quickly. In October of 1956, they approved their constitution and Birner Carey was elected club secretary and would later serve as its

president. By 1964, they had dedicated a first-class observatory built with community funding and admirable commitment by a growing group of amateur astronomers. In May 1964, a feature article appeared in *Sky & Telescope* magazine about the new Modine-Benstead Observatory. Its author, of course, was Paula Birner Carey.

At the risk of extending this already lengthy bio sketch even further, here's one final anecdote. After this history project began in early 2021, and we began learning about the role of Paula Birner Carey in the early days of the club, one of us (JR) was at Yanna Research Station (MAS's observatory). Among the plaques on the wall is one that commemorates donations made to the club back in the 80s and 90s. Among the names on this plaque was "Paula Carey" and a note of her \$100 donation to the building of the Yanna Research Station. We eagerly pulled up the record of club rosters and financial data from this period and discovered that Paula had indeed returned to the MAS. In 1976, Birner Carey reappeared as a club member with a Madison address; paying dues, subscribing to *Sky & Telescope*, and making donations to our new observatory in the 80s. Her final appearance in our records is a dues payment in November of 1987. She died a few years later. Conversations with members who were around in the 70s and 80s revealed only one or two who remembered the quiet, gray-haired woman in the cardigan who would occasionally show up at meetings. One member recalls that she talked about the Racine Society. But it's likely that nobody was aware that a founding member of the MAS was sitting just a few feet away from them at a meeting. Oh, to have had the chance to talk to Paula before her death in 1993!

Bjorksten, Dr. Johan (1907-1995). Bjorksten was a native of Finland and received his Ph.D. at the University of Helsinki in 1931. He emigrated to the US the following year and worked as a chemist at various institutions before settling in Madison in 1944 and founding the lab that bears his name. Bjorksten was a research chemist with interests that ranged over most of the biological and physical sciences. His clients include companies, trade associations, and U.S. government agencies. In 1959 he leased the Fitchburg land to MAS that would become the Oscar Mayer Observatory. Over the years there were several MAS members who had affiliations with Dr. Bjorksten and his lab who could have served as contacts that led to the relationship but we don't know the origins of the agreement. It is unknown if Bjorksten had an interest in astronomy himself but we assume that he did since part of his leasing arrangements with MAS for the land included a yearly subscription to *Sky & Telescope* magazine. Bjorksten eventually retired and moved to South Carolina, where he died in 1995.



Dr. Johan Bjorksten, 1955
State Journal photo.



Steve Bracker, East High
School yearbook photo,
1960.

Bracker, Steve (1942-) Bracker first got involved with astronomy at about age 12 with an Edmund Scientific mirror kit. He ground the mirror and built the scope with his dad in the home workshop. Somewhere along the way, he learned of the Madison Junior Society and went to his first meeting around age 14. He got to know Dr. Huffer and remembers being invited out to the Pine Bluff observatory to do photometry on variable stars. All this eventually led him to Mort Newcomb, Peg Frisch and Moonwatch. These pursuits, along with astrophotography, dominated Bracker's life through his graduation from East HS in 1960 and much of his four years at the UW Madison. Bracker went on to the University of Arizona for graduate work in physics but left without a degree. He worked for a time at Kitt Peak in Arizona and Cerra Tololo in Chile. He spent most of his career working in particle physics at Fermilab. He worked on the computational end of Sloan Digital Sky Survey. In retirement, Bracker got drawn back into some image management work with Ed Churchwell at UW Madison on Spitzer Space

Telescope data. Bracker is retired and lives in British Columbia. In the 2000s, Bracker returned to Madison periodically for some extended stays and actually renewed his membership in the club for a few years.

Clark, Frank C. (1924-2010). A September 1939 article in the *State Journal* profiles 15-year-old Frank Clark of Evansville with his hand-made 4-inch reflecting telescope. The *State Journal* noted that he might be one of the youngest star-gazers in the state. His first mention in the MAS record is having attended the October 1940 meeting, just after the start of his senior year in high school. By February of 1941, he was the one giving the talk at MAS (he spoke on famed telescope maker Alvin Clark). Clark (Frank, not Alvin) entered the UW Madison in the fall of 1941. In June of 1942, club president Harry Hackler died suddenly and was replaced by Ed Baillie. Baillie was soon deployed in the military to California, so Frank Clark assumed the duties of president in Nov of 1942. By July of 1943, Clark himself enlisted in the Navy and left Madison to start pre-flight training after just one year at the UW. An August 1944 *State Journal* article about him mentions that he enjoyed visiting with astronomers at Caltech while in Pasadena. He was stationed in California as a petty officer until 1945 and then returned to Madison. He served another term on the Board of Directors as treasurer in 1946/47, after which he disappears from the record, likely having moved away from Wisconsin.



Frank Clark, age 15, posing with the 4-inch reflector he made himself. Photo from September 1939 WSJ.

English, John M. "Jack" (1898-1958). English was part of the founding group of members. He got his teaching degree from Platteville in 1923 and taught in several school districts around southern Wisconsin before taking a position at the Madison Vocational School teaching chemistry. He would stay at the Madison Voc for 29 years. He later taught driver's education and was active as a leader in the Cub Scouts. English served as the club's first secretary/treasurer in 1935-36. In early 1935, before MAS officially began, it was English who drew the duty to present at the hobby exposition in what may have been one of the first public appearances of the nascent "astronomy club." In one account in the *State Journal*, English was given credit as the "organizer" of the MAS. Because of his connection to the Vocational School, many early MAS meetings took place there. English's only appearance on the Board was as the club's first secretary/treasurer in 1935.



Margaret "Peg" Frisch, 1963. Photo from *Badger Chemist Alumni Magazine*.

Frisch, Margaret "Peg" (1934-) Frisch arrived in Madison in the fall of 1956 to pursue her Ph.D. in chemistry. She had become interested in astronomy as a young girl and would have majored in that subject but Nazareth College of Rochester (NY), an all-women school, offered only chemistry as a science major. Frisch was one of the founders of the Moonwatch program within MAS, along with Mort Newcomb. In this role, she mentored a couple of high school students who ended up contributing significantly to this history. Frisch spent six years in Madison, earning her doctorate in 1962. She was a pioneer computer programmer, genius builder of gadgets, and dabbled in astrophotography. After leaving Madison, she worked for a few years for a research firm in California analyzing properties of rocket exhaust. In 1969 she joined IBM in Yorktown Heights NY and spent the rest of her career there, retiring in 2002. Her work spanned physics (she designed experiments to measure the mass of the neutrino) and she later became an expert in computer programming. She is retired and lives in upstate NY.

Gaffney, J. M. (dates unknown). Gaffney served a single term as a board member in 1941/42. His first mention in the record is his attendance at the June 1936 banquet where Stebbins and Huffer were honored. He was mentioned twice during that year as a speaker at club meetings. He disappears from the record after that. We located a Joseph M. Gaffney (1878-1957) with roots in Kenosha but who may have lived in Madison around the right time but evidence is scant. If this is him, his wife was Marie and they had three children.

Grams, Frank O. (1905-1980). Grams attended the University of Wisconsin and spent his career working with the Extension Division of the UW and with their radio station, WHA, where he was an engineer. He also spent time working at WIBA. In addition to his interest in astronomy, he was very involved in the

field of amateur radio, also serving as an officer in that club. Grams served as an officer of the MAS from 1939-44 and again as vice president in 1959/60. He may have served additional terms in between those two but gaps in our records prevent us from knowing for sure. Grams is listed as having given six talks to the society between 1939 and 1956. One of the first was about a trip to Mt Wilson in California, and the last was a talk on the emerging field of radio astronomy - a topic that straddled his two principle hobbies. Newspaper reports over this period note him monitoring the radio transmitter aboard Sputnik 2 (Nov 5, 1957 *State Journal*).



Frank Grams, 1952 WSJ photo.

Grove, Mrs. P. B. (dates unknown). Probably the spouse of Paul Burton Grove, 1896-1977. She is never identified in club minutes or newspaper accounts by her own name, only as the Mrs. to her husband. We believe her name was Doris Agatha Meek (1898-1988). Mrs. Grove was the vice president of the club from 1938-1941. During this same period, she delivered talks at meetings four times. The Groves lived in Shorewood Hills. Mr. Grove appears to have been a home builder by the many mentions in the real estate section of the newspaper in the 30s and 40s. If Mr. Grove was also involved in the club, we have no record of it.



Harry Hackler, 1924 University of Iowa yearbook photo.

Hackler, Harry H. (1905-1942). Hackler was a pharmacist and regional representative for the drug company Upjohn. He was an Iowa native and attended the University of Iowa for pharmacy school. He was an early member of the club and appears to have been around since the group's beginning. He was elected MAS's 4th president in 1941. He would have served a second term but Hackler died in June 1942 aged just 37, just one day after being reelected. For the five years of his association with the club, he was mentioned often as a speaker at meetings and participant in other activities.

Houston, Walter Scott (1912-1993). Houston is well-known to most amateur astronomers as the *Sky & Telescope* columnist and author of their *Deep Sky Wonders* column. Beloved by generations of readers, Houston attended the UW Madison as a graduate student in the early 1930s and was thus present for the founding of the MAS. For its first year as an organization, Houston served as the editor of the *Madison Bulletin*, the club's first newsletter in 1935. That newsletter

lasted less than a full year, and Houston presently finished his studies and left Madison for his home in Milwaukee and a career in astronomy journalism. He never again figured prominently in the club but is listed here because of his prominence in the greater amateur astronomy community.

Huffer, Charles Morse (1894-1981). Dr. Huffer's role in the MAS is impossible to overstate. As a master's degree student in math at the University of Illinois, Huffer took an astronomy class taught by Joel Stebbins, and the two got to know each other well. Stebbins was impressed enough by Huffer's astronomical potential that in 1917 he persuaded him to take a position with the Lick Observatory working in Chile the following year. While there, Huffer evidently decided that astronomy was his true passion and he would spend five years working for Lick in Chile. He and Stebbins kept up a correspondence and Stebbins, who in the meantime had moved to the UW Madison, invited Huffer to come to Wisconsin to be his first Ph.D. student. Huffer accepted the invitation and would end up spending most of his career in Madison, joining the astronomy department with Stebbins after finishing his doctorate in 1926. As described above, it was Huffer's astronomy classes for the Extension program that gave MAS its genesis, most likely because some of the other names on this list took that class. MAS was close to Huffer's heart. He served as the secretary of the club for more than 25 years and remained very involved in all the MAS's ongoing activities. It's not that much of a stretch to speculate that the outreach instinct that prompted Huffer to teach an Extension



C. M. Huffer, UW Madison Archives photo, circa 1936

class in astronomy fueled his lifelong involvement with the local astronomy club that grew out of that class. Huffer retired from the UW Madison in 1961 and moved to California where he taught for several more years at San Diego State College, before retiring for good in 1968. Huffer returned to Madison and died here in 1981. As a nice bookend to his MAS tenure, he was the featured speaker at the May 1980 annual banquet!



Leslie Ketchum, WSJ photo from 1952.

Ketchum, Leslie W. (1894-1985). Ketchum was a founding member. He served with the signal corps during the war WW I. Upon returning to Madison he was a scout director and served as a field commissioner for the Boy Scouts of America. He was active in the Catholic Youth Organization. He was employed as a director at Wisconsin Print Co. A 1951 *State Journal* article referred to him as a “well-known Madison businessman.” He acted in some plays at the Madison civic center and may have known Bill Binney from there. Ketchum was listed as V.P. to Supernaw in the very first announcements of the MAS in 1935. He only served that one term and was never on the board again, but remained active in the club through at least 1960. He was listed as a speaker at meetings a number of times in 40s and 50s. Ketchum’s final mention with respect to MAS was April 1960 when he gave a talk on sunspots.

Koster, Art (1913-1986) and **Koster, Doris** (1932-) (married 1959). Doris first became associated with MAS when she and Art married in 1959. Art had already been a member for several years. Art had been interested in astronomy since childhood and it was his passion that ignited Doris’s love of the science as well. Art’s first mention in MAS records is December 1963 article in a *State Journal* article about his backyard observatory. Art was on the board several times from 1963 until his unexpected death in 1986,



Doris and Art Koster, about 1975. Photo from Doris’s family collection.

including as vice president from 1968-72 and then at least one term as president in 72-73 (but our records are incomplete). He was trained as an engineer and spent most of his career at the Forest Products Lab where he worked on special projects including the pioneer work using lasers for testing various properties of wood. Art was also a professional level violinist, having been trained at the Milwaukee Conservatory. Art was a giant in the club and loved by all who knew him. He did nearly professional level work as a solar observer and photographer, built many of his own instruments, and had a series of no-nonsense observatories in his backyard. Art’s time in the club coincided with the active period of the Junior society. Art taught mirror grinding classes to the kids and was always available to mentor and support younger astronomers. Many club

members remember making the trip to the Koster home to see Art’s backyard gear and basement workshop, and to be made to feel like they were part of the family by he and Doris. Before and after Art’s death, the Kosters donated telescopes and buildings to the club, and sold others to MAS at cost. After its founding, the Yanna Research Station had two buildings on the property bearing the Koster name. Doris also threw herself into the work of the club with her organizing, hosting, and managing skills. She was responsible for at least two major conferences of the astronomical league from the 70s into the 90s in Madison and continued the Koster legacy in MAS for years after her husband’s death. At this writing, Doris still lives in Madison and remains active in vocal music performance.

Lappley Gilbert F. (1892-1960) Lappley earned his Bachelor Of Laws degree in 1921 and practiced as an attorney in Madison and Milwaukee. He’s also listed as having taught economics for UW extension around 1926. Later, he seems to have been an enforcement officer for the state beverage tax commission. In the



Gilbert Lappley, 1921 UW Madison yearbook photo.

late 30s and 40s, he has many mentions in newspapers as an attorney representing various interests and individuals in hearings. He served as an MAS board member from 1938-42. He's listed as having given talks at meetings five times during that period. After 1942, he vanishes from the record.

Lookabill, Harrison Randal (1875-1960). H. R. Lookabill was born in Indiana and returned there for the final decades of his life. He spent only six years in Madison (1931-36) while pastor of the First Christian Church of the Disciples of Christ. As a minister, he was well-known and highly regarded in the community and was widely known due to his Sunday services and officiating of weddings and funerals. Lookabill also got attention for his unusual devotion to his hobbies, principally among them, astronomy



H. Randal Lookabill with one of his telescopes, 1934 WSJ article photo

and telescope making. In his sermons and public addresses, he frequently made the connection between his profession and his beloved hobby via the phrase “the wonders of the heavens” with the double meaning of the final word intentional. As mentioned above, it was in a feature article about his hobby where he mentioned, in 1934, his belief that an astronomical society would be formed in Madison within a year. Though he only remained in Madison for about a year after the formation of the club, Lookabill appears frequently in newspaper notices of the club as a speaker and participant. He also delivered some of the WIBA radio addresses mentioned above in Paula Birner Carey’s entry. Even after he left Madison and the MAS behind to take pastorates in Michigan and then home to Indiana, Lookabill occasionally surfaced either physically back in Madison, or in the imaginations of MASers via his correspondence. His adult daughter continued to live in Madison, and Lookabill seems to have had a close friendship and/or correspondence with Dr. Huffer. One of his visits back to Wisconsin occurred in July of 1945 when Lookabill traveled to Manitoba Canada to observe the solar eclipse of July 9, on a trip that seems to have been planned in concert with several of his Madison friends.

On the way to or from, he stopped by Madison to reconnect with old acquaintances and attend a meeting of the club. In 1956, an article in the Kokomo (IN) Tribune refers to a trip to Madison to observe the close opposition of Mars, possibly as a guest of Dr. Huffer at the Washburn Observatory.

McNaughton, George C. (1888-1947). McNaughton was yet another MAS member who worked at the Forest Products Laboratory, where he was a chemical engineer (Parker Baird and Art Koster also worked there). A newspaper account from 1918 notes that McNaughton and his wife were temporarily living in Texas, where he was doing research for FPL. There are numerous references to his involvement with the Forest Products “league” in Madison, possibly a union or civic organization made up of employees and their families. His first mention in MAS documents was at the April 1939 meeting where two “motion pictures” about astronomy were shown and McNaughton was one of the members who gave commentary (the movies were “A Trip to the Moon” and “Solar Eclipse of 1932,” and were almost certainly silent movies).



Mort Newcomb with OMO in the background, working on the Moonwatch scopes. 1963 State Journal picture.

He served on the Board from 1942-45 including one term as vice president during the year 1943/44. He is listed as giving two talks during 1940. After 1944/45 he disappears from the record.

Contemporary newspaper accounts show numerous mentions as both a bridge player and a golfer. McNaughton died in November of 1947.

Newcomb, Morton (1909-1997). Newcomb is listed as club president 1958/59 and member of the board 1960/61. Club records are not complete for those years. Newcomb’s principle footprint in the club was the leader of the Moonwatch program between 1958-64. He was the defacto leader of the tight group of four (with Frisch, a UW graduate student, Bracker and Rouse, high school students). The four comprised the whole of Project Moonwatch in Madison, and also practiced a lot of pioneering astrophotography along with various improvements to the Oscar Mayer Observatory and the equipment located there. Once the cohesive team started to break up (due to the

graduation and moving away of the three students), Newcomb also found that his own interests were moving on and he eventually left the club. Newcomb lived his whole life in Madison. When he died in 1997, his obituary described him as a “rare and wonderful man with great love and appreciation of life.” His interests included “building, inventing, gardening, philosophy, bicycling, astronomy, photography, sailboating, chess, music and poetry.”

Overn, Joanna (1924-2017). Overn’s first mention in club records refers to a June 1950 MAS meeting that took place in her home. She served as the club’s secretary in 1951 and as its president in 1952. She remained active in MAS for the entire decade of the 50s and may have served additional terms as an officer but our records are incomplete. She was an active musician and frequent vocal soloist at many Madison events during that time period and later would teach music at MATC. Twice in the year 1959-60, the Madrigal Singers performed at MAS events—a Christmas party and a banquet—most likely due to Overn’s influence. From 1946-58 city directories listed her as student. She was an English literature major and apparently did well. She was a Phi Beta Kappa recipient in 1952 and listed as having received “Sophomore honors” in 1951. She appears to have been politically involved (or at least interested) as two of her letters to the editor were printed in the early 1950s defending the UW against charges that it was rampant with communists. Overn was an involved club member. She gave multiple talks at meetings, gave talks on astronomy to outside groups and was an active advocate for MAS to get its own observatory. Overn’s last mention in MAS documents is from a November 1969 meeting where contributed to an honorarium being raised for a recently deceased member. She was a lifelong Madison resident, dying in 2017 at the age of 93. In a tribute written about her after her death, the writer observed that even as her memory failed her later in life, “To the day she died,” ...she was able to converse with interest on the topics of “Opera, classical music, astronomy, geography, history and classical literature.”



Joanna Overn, 1954 UW Madison yearbook photo.



Harold Porterfield, photo from WSJ article on his retirement from the IRS, 1960.

Porterfield, Harold B. (1895-1976). Porterfield was born in Michigan and attended the University of Nebraska law school. He served in WW I as a Naval officer. By the mid-30s, he was state tax officer of the Madison office of the IRS. Previously, he had served as secretary to Gov. Bryan of Nebraska (brother of William Jennings Bryan). When Gov Bryan became mayor of Lincoln, Porterfield was an assistant city attorney there. Porterfield’s first mention in the MAS record is September of 1938 when he was part of the committee to select candidates for board positions. Early the following year, he gave the first of 16 talks he was to give to the Society over the next 20 years. He served as 3rd president of MAS (1939-41) and served another term in 1943. After he left MAS’s board, he served for a time as the president of the north central region of the Astronomical League. Porterfield was very involved in MAS activities both as officer and member. He did much to bring publicity to the club through regular communication with the newspapers as well as submitting three articles for publication in the *State Journal* between 1941-49. He also gave talks on astronomy to other organizations. In June of 1952, a brilliant fireball lit up the

skies over a path leading from Michigan to Iowa, crossing Wisconsin on a diagonal. For the next six months, a concentrated effort was made to gather eyewitness reports—and a single lucky photograph—to plot its path and look for fragments. Porterfield was enthusiastically at the center of this effort. In June of 1960, 16 years after he left the board of directors of the club, Porterfield was elected “honorary president,” apparently a tribute to the significance of his contributions to the club over the years. During this same meeting, Dr. Huffer (who was about to retire from the UW and move to California) was elected president, after years of serving as the club’s secretary. This may also have been a simultaneous gesture to recognize the role of these two giants of the club. Two months later, Porterfield retired from the IRS and he and his wife relocated to Florida. He died there in 1976.

Rath, Ethel (1892-1966). Another early club member about whom little is known. She appears in records as “Miss Roth,” which is spelling/transcription error; her name was “Rath,” wife of Floyd Rath. She appears four times in our records as “Mrs. Floyd Rath.” Served as club secretary from 1936-38, after which Huffer began his 22 year run in that position. Other than a mention as a member of the club’s social committee in 1939, she disappears from the record with no trace. Her husband died in 1936 prior to her involvement with the club. A death notice for Ethel Rath is dated January 24, 1966 in the *State Journal*. No obituary was found.

Rouse, John (1944-) Rouse was born in Baraboo, WI and moved to Madison after 5th grade. A fan of astronomy even in grade school, he soon heard about the Madison Astronomical Society and started going to meetings. It wasn’t long before he gravitated to Newcomb and the satellite tracking team. He remembers learning some elementary computer programming in 1959 courtesy Peg Frisch. As a HS senior he got a job with a high-energy physics group in Sterling Hall. He left for college at Caltech in the fall of 1962 but stayed in touch with Madison Juniors while there for the first couple of years. Rouse was a member of the freshman physics class in the second year of Richard Feynman’s famous physics lectures. By that time, Feynman was only delivering the lectures occasionally, but Rouse remembers it as an experience. Feynman as an animated lecturer who moved about 50% faster than Rouse could keep up with. Rouse got more involved in computer programming while at Caltech and graduated in 1966. He went to graduate school at UCLA. He spent his career working in software and systems engineering, primarily for Hughes Aircraft in LA, later as a part of Raytheon, and on assignments all over the world. He retired in 2011.



John Rouse, West High School yearbook photo, 1962.



Thomas Stavrum, UW Madison yearbook photo, 1931.

Stavrum, Thomas (1907-1988). An accountant by training, Stavrum’s involvement with the club spanned most of the 1950s. He is mentioned primarily with respect to the club’s efforts to secure a telescope and observatory around the time of the Oscar Mayer donation and the move of the Student Observatory from campus to Fitchburg. He is mentioned as being in charge of the “telescope committee.” He gave a number of talks during his tenure with the club. In 1959, Stavrum was elected for the first of several terms as a Madison alderman and this seems to have ended his period of active involvement with the club. For many years thereafter, he’s frequently mentioned in newspaper accounts due to his involvement in local politics, and a variety of other civic activities.

Stewart, Charlotte (1914-1970). There is confusion over Stewart’s identity because her name is frequently misspelled “Sewart” or “Steward” in both club documents and in press accounts. We believe these are all typos and that the correct spelling is definitely “Stewart.” She earned a degree in mathematics at UW Madison in 1935 with high honors. She served as vice president of the club during the 1941/42 year and was listed as president during 42/43 and then again from 1946-48. These dates are consistent with newspaper accounts of a Charlotte Stewart enrolling in the Marine Women Reserves (*State Journal*, July 26, 1943) and subsequently being absent from Madison for a few years while deployed. According to the history written by Neale Silva sometime in the early 1960s, she played a critical role in the acquisition of the land for the Oscar Mayer observatory in Fitchburg: “In 1956, through the good offices of Miss Charlotte Steward [sic], the Society was invited to install its first building at the site of the Bjorksten Laboratories.” A 1952 Madison City Directory contains a reference for a “Charlotte J Stewart with her employer listed as Bjorksten Research Laboratory. We’ve located an obituary from January 15, 1970 for a Charlotte Stewart but it contains little information about her life, just noting that she was a resident of the Madison area for 35



Charlotte Stewart, 1935 UW Madison yearbook photo.

years.



Jack Supernaw, 1925 UW
Madison yearbook photo

Supernaw, Dr. Jack S. (1899-1960). Supernaw served as the first president of the MAS. He was a prominent Madison physician and surgeon. Supernaw got his medical degree from the UW Madison in 1927. He was a chief of surgery at Madison General Hospital and served as the president of the Dane County Medical Society in 1942; and was very active in a variety of medical associations at the state and national levels. Supernaw had varied interests and avocations. In addition to astronomy, he was an avid amateur geologist and mineralogist and had a lifelong interest in the Civil War. Civically, he was active in the Shriners and Masons, and also served a term on Madison's Board of Education. Supernaw stepped down from the MAS board after that first year but remained active in the Society and a frequent presenter at meetings well into the 1950s. He was listed as one of the club members to travel to Canada in July of 1945 to view the total solar eclipse. Supernaw died by suicide in March 1960 though the circumstances

of his death were somewhat suspicious (3 bullet wounds to the head when one is generally sufficient). Friends and family speculated that he was increasingly despondent over his worsening arthritis. The investigation apparently revealed no foul play.

Winkley, Francis D. (1855-1946). Though born in New Hampshire, Winkley lived most of his life in Wisconsin. He enrolled at the UW as an engineering student in the 1870s and got hired as a janitor at the Washburn Observatory while it was still under construction. His mechanical skills were soon recognized and before long he was working on improving the operations of the dome and telescope mounting in the main building. According to an account by Edward Holden, he also designed "most of the details" of the Student Observatory, the building that would—almost 80 years later—be donated to the MAS, moved to



Francis Winkley. Photo on left as a younger man.
On right at age 86, about four years before his
death in 1946. Both photos from WSJ.

Fitchburg and be renamed the Oscar Mayer Observatory. In one of her newspaper columns (Nov 16, 1939, *Capitol Times*), Paula Birner wrote that Winkley had "assisted Dr. Watson with the Solar Observatory which is the little building on the hillside south of the main building." Before finishing his degree at the UW, he was offered a job at Madison-Kipp Company where he designed oil pumping equipment and later worked for Fuller & Johnson Company where he developed equipment for agricultural applications. Winkley was an avid tinkerer and inventor and had interests all over the map, but retained his interest in astronomy throughout his life. Newspaper accounts record him building "planetariums" but from their description, it is apparent that these were actually orreries, quite large and detailed ones. He donated one to the University and one to the Madison school

district sometime in the late 30s or early 40s. In May 1939, already in his 80s, he first appears in the minutes of a club meeting when the group went to the Mechanical Engineering building to see a demonstration of one of his "planetariums." That fall, Winkley was selected as an honorary member of the club, apparently in recognition of his contributions to the understanding of astronomy in the community over six decades. Winkley died six years later, aged 90. His obituary attests to the fact that he was a well-known and loved member of the community.

Wyngaard, Tim (1941-1986). Wyngaard deserves much of the credit for getting the Junior Society started in the mid 1950s. His first appearance in club records occurred when he gave a talk at a regular MAS meeting as a 10th grader in 1956, just a few months after the first mention of the Junior society in March of that same year. In numerous subsequent announcements about the Junior society, Wyngaard is quoted as a leader and spokesperson for their activities and future plans. In recognition of his efforts to get the Junior Society started, Wyngaard



Tim Wyngaard, West High
School yearbook photo,
1960.

was chosen to participate in a National Science Foundation expedition to the Canary Islands to observe the total solar eclipse of October 1959. This was quite an honor for someone still in high school and he seems to have made the most of it, traveling to the White House to visit with the president's science advisor, and writing a series of articles about his trip for the hometown newspaper. He's listed as serving a single term on the board in 1960-61, the year following his high school graduation. Wyngaard went on to be a journalist of some note, covering the White House for Scripps Howard throughout the 1960s and later serving as a political consultant and speech writer. He died in 1986 after a sudden illness.



Ted Wysocki, 1961 UW
Madison yearbook photo.

Wysocki, Ted (1938-1971). Wysocki served on board from 1963 to 68 including four terms as president. His wife Marcelle (or Celle, pronounced "seal") also served as club treasurer and secretary during Ted's involvement. Records show him giving only one talk (but records are incomplete during his era) but the Wysockis were frequent hosts for the meetings, providing for social niceties such as welcoming guests and providing snacks. Wysocki's terms as president coincided with a period of challenge experienced by MAS in the mid to late 60s. The Junior society had slowly faded as its members grew older and membership in the larger club was on the wane, and the club was seeking ways to rebuild the membership. Professionally, Wysocki was an actuary for CUNA mutual and was quite a math nerd. Members recall a high level talk he gave to the Juniors one night on the mathematics of Georg Cantor. It was surmised that the theory of transfinite numbers went over the heads of most of the 15 year olds! Wysocki is fondly remembered by those who knew him as a valuable and committed club

member. All were saddened when he took his own life in January of 1971, possibly due to despondency over his failing eyesight. Celle Wysocki continued to be involved with the club for several years following her husband's death.

Yanna, Leroy (1919-2005). Yanna is another member whose impact on the Society is hard to overstate. The club's current observatory site, the Yanna Research Station, was named in his honor after Yanna donated much of the Green County land on which the observatory rests. He became interested in astronomy by age 14 but said he couldn't find much info to feed his curiosity. Growing up between Fennimore and Montfort in eastern Grant county, it was a local veterinarian who came to his assistance by recommending a book on telescope making. Yanna sent away for the book and began studying, and soon after began making the first of 14 telescopes he would build during his lifetime. Yanna joined MAS around 1960 after being invited to give a talk on telescope making. By 1964 he was on the board and eventually would serve as vice president too. He is last listed as being on the board in 1969. Yanna's involvement with the group in the 70s is not known but he rose again to prominence in the early 80s when the light pollution in Fitchburg was increasingly making the Oscar Mayer observatory a poor location for astronomy. Yanna heard that the club was looking for a new site and approached the officers with the idea of selling a parcel of his land in northeastern Green county, about 20 miles south of Madison. The offer to sell turned into a gift and the club's main observing site has been known as YRS ever since. Yanna remained involved with the group until his death in 2005.



Leroy Yanna,
approximately 1992, photo
by Dave Weier.

Appendix C: Moving the Student Observatory

(Note: John Rouse was a 16 year old high school junior when the observatory was moved in 1960. This is his own account of that experience, written and communicated to the author during 2020-21.)

Around 1959–60, the UW decided to get rid of their old student observatory, built in 1880 or so. They donated it to MAS, on the condition that they relocate it at their expense to their new site.

This is when I really got into satellite tracking. In 1959, MAS got a grant from Oscar Mayer Co. to move the observatory to the Bjorksten site, so we called it The Oscar Mayer Observatory. The job involved preparing the site by building a new foundation, sawing the building in two, unbolting it from its old foundation, getting a company to move the building, refurbishing the building, and finding a suitable telescope for it. I spent much of two summers working on this.



We all spent time out at the Bjorksten site, building the new foundations, starting in 1959 and continuing into the next year after the ground thawed. The job entailed digging the trenches, pouring the footings, and laying a whole lot of concrete block foundations. We had also poured the lower part of the new telescope pier, from well underground to up above floor level. With all of this, I was learning a lot of construction skills! And not so well sometimes: on at least one occasion my mortar preparation and block laying were not up to snuff, which Mort demonstrated by knocking my work down with his bare hands.

We had to saw the observatory in two because of its irregular shape. There was a rectangular room that used to house a transit instrument. Offset from this was an entryway and small storage area. Further offset was an octagonal structure which was a workroom on the main floor, and the dome room above. By sawing the building in two, it would be possible to fit the halves onto two flatbed trucks, plus a third truck to carry the dome itself.

The sawing was a heck of a job, pretty much up to me and another kid. First, we peeled back the galvanized iron roof, then started sawing into the structure. I don't think we had to do any interior bracing, which was a relief. But that was a lot of sawing, especially the base plates, which were pairs of 4x8s (more on this later but suffice it to say here that 80-year-old wood is very well seasoned!). As all we had were hand saws, we were getting into decent shape by time we were done.

Then we had to unbolt the building from its foundation. To understand why this was no simple matter, you have to understand the way the observatory was built, which was as follows: first lay a massy masonry foundation, with the bolts securely embedded in it. Then lay down 4 x 8s on the foundation and bolt them down with big square nuts. Then lay down a second set of 4 x 8's, with square holes chiseled out to accommodate the big square nuts. Then build the rest of the building. Wherever possible, wood was joined with tongue and groove or mortise and tenon joints. The reason, we discovered, was that such nails as were used were all forged one at a time by a blacksmith.

Steve and I could see where the bolts were in one or two places, but there must have been lots more bolts that we couldn't see. We knew we had to find every single one, or else the building would be torn to bits as soon as the crane started to lift it.

Ken Bures and I went looking for the building's blueprints, hoping to find where all the killer bolts were. We combed the University archives and talked to a lot of old hands. Finally, we found one old guy who told us that in those days the person with the money would just scratch an outline in the dirt with the tip of his cane, and the contractor would take it from there.

So, we had no hope of finding all of those bolts without digging—literally! We spoke to the mover about this and he brought out a guy with a cutting torch. We walked around the building, and the guy, a real old-timer, said, “dig here”. We bashed away with a sledgehammer and a big stone chisel, and sure

enough there was a bolt, which was cut. This operation repeated for about an hour, until every bolt had been severed—we hoped!

The Big Move

The day of the move was exciting. There was a narrow twisty road up to Observatory Hill, and here came a truck-mounted crane and three flatbed trucks. They gingerly picked up each half of the building, very slowly at first while we all looked for a hang-up on an undetected bolt, and then they set it on a flatbed.

The octagonal part of the building was especially tricky. The moving crew had to very carefully lift it straight up, with no tilt or rotation, as they had to clear the very solid (brick, I recall) telescope pier, which extended from terra firma up past the floor of the dome room.

Then this procession of flatbed trailers started down the hill, led by a police escort. About halfway down, here was an illegally parked car that made further progress impossible. The cop looked at it, said

it was really chintzy how carmakers made such cheap door locks, and pointing out how easy it was to jimmy the lock with a coat hanger. Then he said it was about lunchtime anyway, so he'd be back in an hour. Well, we got the hint, found some stiff wire, got the car open, and then coasted it down the hill and out of the way. So yes, technically, we did steal a car whilst in high school.

Out at Bjorksten, the movers had to ve-e-ery carefully lower the octagonal part of the building over the telescope pier, which stuck up just a bit above floor level. This is where Mort's careful measurements paid off: the hole in the floor was just big enough for the pier, and once they started to

lower the building, it was found that the foundation was laid out correctly as well: the two parts of the building aligned to within a gnat's eyebrow.

After the move was all done and the gap between the two parts of the observatory had been made weathertight, then came the job of pouring the upper part of the telescope pier. We built a sturdy form that went the rest of the way up into the dome room, and had the concrete truck come out. I've forgotten how they got the concrete in, probably bucket by bucket, as concrete pumps didn't exist yet. But eventually some tons were poured in, at which point the form, which was wider at the bottom than the top, lifted off the floor due to the weight of the concrete. So, we had tons of concrete all over the floor, and a pissed-off work crew.

Under Mort's direction, we all slogged into the concrete, repositioned the form, and this time nailed in all kinds of braces to securely keep the form in place. Then the bucket brigade started again, first shoveling up the stuff on the floor, then bringing in the remainder from the truck. We had a nice thin concrete coating on the workroom floor, plus several pairs of ruined tennies.

Getting it Fixed Up

After the concrete work was finally done, we started refurbishing the building. We removed the old transit slit doors, which evenly divided the so-called Transit Room along its north-south and east-west axes, and put in proper roofing and siding. The building's electric light wiring consisted of wires pulled through the old gas mantle plumbing, so we reused what we could of that and then augmented it with proper wall outlets and breakers.

We built a small darkroom, and also a couple of big built-in worktables. We got ahold of an old oil stove with a big outdoor oil tank, so that the place would be habitable in the winter. However, the building had no insulation for the first couple of years. Later we installed insulation batts; they really helped and made the room much brighter during the day.

By this time, we had quite a scrap pile. We decided to burn it, and Steve thought that a nice powerful fan would speed the process. We heaped up the scrap so that it had a kind of tunnel running through the pile, and he hooked up a large electric motor to a big squirrel cage fan, and away we went. It was a proper bonfire; the lawn was scorched for several yards around.



By the way, what I called a “lawn” was really just a bit of a cow pasture that we would mow now and then. And the cow pasture did indeed contain cows and things associated with cows. And the cows would come visit sometimes. Once we built the concrete platforms, the cows discovered them, and liked that they were warmer than the ground for a while after sunset. Between their presence and their presents, they became a bit of a pest.

I remember I got there one evening to see Steve driving his small car around and around, trying to shoo the cows away. They endured the abuse in good humor but did not learn from the experience. So, a bit later, perhaps or perhaps not after getting the farmer’s permission, we put up a barbed wire fence at what we asserted was our lot line. So, from that point on, we could observe uninterrupted save for an aroma when the wind was right (i.e. wrong).

This was the summer of the woolie invasion. The woolies were large fuzzy caterpillars, which were all over the place; you’d squish a lot of them driving to the site. We’d have woolie bowling contests, where we’d take a heavy lead counterweight, and roll it toward a woolie. We also had an invasion of grasshoppers. We’d bowl for them as well. And, as a cruel pimply kid, I fed one to the gears of the telescope’s clock drive. Of course, I got the job of cleaning and relubricating the gears....