

SOME HISTORY OF STELLAFANE AND ITS OBSERVATORIES

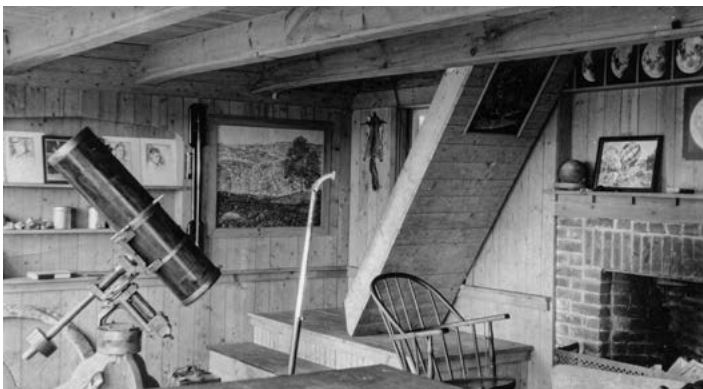
1920—BEGINNINGS

In 1920, when a decent astronomical telescope was far beyond the average worker's means, Russell W. Porter offered to help some Springfield residents, mainly machine tool factory workers, to build their own. Together, they ground, polished, and figured mirrors, completed their telescopes, and began using them, soon becoming thoroughly captivated by amateur astronomy.

1923—THE CLUB IS FOUNDED

In December of 1923 the group formally established the Springfield Telescope Makers as a club with officers and membership standards, and began building a clubhouse on land owned by Porter atop Breezy Hill. By 1925 their activities had drawn the attention of magazine editors including Web Waldron at *Collier's* and Albert Ingalls at *Scientific American*. They visited the club, and soon published articles about telescope making. This generated interest across the country, and the hobby of amateur telescope making began to grow in the United States.

1923-1924—THE STELLAFANE CLUBHOUSE



Clubhouse interior, unknown date, with retractable staircase pulled down. Telescope at left was built by Everett Redfield.

The clubhouse was designed by Russell Porter and constructed by the members. The building was originally dubbed "Stellar Fane" ("Star Shrine"), which soon evolved to simply "Stellafane." The pink color may simply have been that of donated paint, but it has been hallowed by long tradition. Many fascinating memorabilia of the club's earlier days can be seen here. Although it's now a tight fit with today's larger membership roster, the Springfield Telescope Makers still hold some meetings at the Stellafane Clubhouse.



Cover illustration by Harold Brown showing STM members using the solar projection telescope at the Stellafane clubhouse.

Over the next few years Stellafane came to house three historic built-in telescopes, each of which brings the image indoors for viewing: a unique 12-inch Polar Cassegrain, which views the Southern half of the sky from a position in a work-room addition to the building; a solar projection telescope made famous by a cover illustration in *Scientific American*; and a transit telescope, needed for determinations of the exact time in an era before today's very accurate timekeeping.



Russell Porter seated in the clubhouse, at the eyepiece of the transit telescope.

1926—THE FIRST CONVENTION

On July 3, 1926, 29 people came to Breezy Hill, and the Stellafane Convention was established. It's been held every year since, except during and just after World War II, and in 2020 due to the pandemic. There was a period after the war when STM membership had dwindled to the point where members couldn't manage the Convention alone. The Amateur Telescope Makers of Boston stepped in and helped make sure that it revived and continued. In later years, the Convention grew rapidly; today nearly a thousand enthusiastic amateurs make the pilgrimage to Breezy Hill.



A group photo with most of the attendees at the first Stellafane Convention, in 1926. Russell Porter is seated at lower right; Albert Ingalls is seated just behind the young man at the front center.

1930—THE PORTER TURRET TELESCOPE

The Porter Turret Telescope was constructed in 1930 by the club. Porter had endured more than his share of winter cold on polar expeditions early in his career. Following Hartness's turret refractor design, he devised a way to build a reflecting telescope that also allowed the observer to remain indoors on the coldest winter nights. Extensively renovated in the 1970s and fitted with



The Porter Turret Telescope in the 1930s.



Jacking the heavy RA ring into position during the Porter Turret's construction. The telescope could only have been built in a place like Springfield, where the Jones & Lamson Machine Company, employer of Porter and others, afforded members the means to machine large parts.

site. This became known as Stellafane East. In 1998, STM member Harty Beardsley donated another adjacent 45 acres, ensuring that the Convention has room for growth.

1987-1995—THE MCGREGOR OBSERVATORY

In the late 1980s and the first half of the 1990s, the Springfield Telescope Makers undertook a huge project—the construction of a new roll-off-roof observatory and a 13" Schupmann telescope on a high point at the Northern end of Stellafane East. The telescope is truly a world-class instrument, for a time the largest operating Schupmann in the world. It combines reflective and refractive elements to produce an unobstructed coma-free and color-free image, traits that make it an ideal planetary instrument. It is mounted on a massive computer-controlled alt-az mounting.



The McGregor Observatory with its roof retracted and the Schupmann telescope visible.



The Schupmann telescope and the Milky Way, photo: Dennis di Cicco

The observatory is a rugged, functional building that also houses space for a browsing library and many activities during Convention. It was designed by STM member John Martin and, under John's direction, built by STM members. Optical designer Scott Milligan and master optician Philip Rounsville spent countless hours of labor on the optical elements and the telescope itself, over the course of eight years.

The McGregor Observatory was dedicated by the Springfield Telescope Makers on July 15, 1995, to the memory of STM member Douglas McGregor, an avid amateur astronomer and telescope maker, best known as Master of Ceremonies

new optics, the Porter Turret remains an excellent instrument.

1986—STELLAFANE EAST

Faced with the loss of access to a neighboring field that had been the Convention's camping area, the STM, with the support of members who mortgaged their homes, purchased a 33-acre farm across the road from the original Stellafane

of the Stellafane Convention up to the time of his passing in 1988. The close knit club reacted to the sudden loss of McGregor by undertaking this ambitious observatory project in his name.

2003-2006—THE BREUNING OBSERVATORY



This domed observatory building, just down the hill from the McGregor observatory, was built by members under the direction of Dave Prowten, who did much of the work himself. It is named in memory of long-time STM member and accomplished telescope maker Carl Breuning. The 12-foot Ash Dome was donated to the club; it came from an unfinished house in Carlisle, MA that had been foreclosed and was going to be demolished. The observatory building was completed just before the 2005 Convention. It houses a unique and beautiful instrument: a 10-inch Ritchey-Chrétien telescope on a finely-machined Springfield mount, affording a stationary eyepiece accessible to a seated observer. Built by Dino Argentini in 1964, the telescope won first place optical and mechanical awards at the 1970 Convention, and was donated to the club in 1997.

2014-2018—THE ANDREW SIMONI OBSERVATORY



The beam from the objective lens enters the building via a tube through the wall, visible to the right of center on the building front.

The Andrew Simoni Observatory is dedicated to the memory of Andrew Simoni, long-time conventioneer and Stellafane benefactor. It's located near the Stellafane Clubhouse, and houses a 1930s spectrohelioscope. An invention of George Ellery Hale, the spectrohelioscope produces an image of the Sun in any desired visual wavelength. This instrument was rescued from a defunct observatory

at the University of Pennsylvania by Matt Considine and Dave Groski, and later donated to the club. The observatory consists of an external pier with a coelostat and a long-focus singlet objective, and system of optics and mechanical elements inside the building that form a very narrow-band image of a portion of the Sun's disc. Members, especially Matt, Dave, and Jim Daley, have made many improvements and refinements that have elicited a level of performance from the old instrument far exceeding its original capabilities.



Russell Porter discussing the spectrohelioscope (the same one now at Stellafane) with Gustavus Cook, the original owner of the instrument.



The coelostat and objective lens (top left), with new motorized controls that replace the old mechanical links. Photo: Sal LaRicca

The building was designed by Ken Slater and constructed by Dave Prowten and many other members. Unique airflow features and infrared-reflective film lining in the walls keep the interior cool in the hot summer Sun. A solar panel charges batteries to provide all the power for interior lighting, a ventilation fan, and the operation of the instrument. The interior also houses a mini-museum of the history and operation of the spectrohelioscope.