

POLARIS



Royal Astronomical Society of Canada London Centre Newsletter November 2015

Skyward David Levy

Anyone can enjoy the night sky. While this column is intended specifically for those who enjoy going outside and relishing the wonders of the night, it is also meant for musicians who, like Saint-Saens, appreciate the sky vicariously through the music they compose. It is also meant for those who appreciate the sky through the poetry they write. This month we will explore the astronomical interests of two American poets, both of whom lived in the American West, and both of whom loved the stars. Robinson Jeffers and Kenneth Rexroth both lived in the earlier years of the 20th century and both wrote about the sky.

I begin with Robinson Jeffers. As a human being, he particularly enjoyed living in California and he built a stone cottage and tower that allowed him to watch the Pacific Ocean near Big Sur. As an amateur astronomer, he especially enjoyed the night sky from the castle's turret. As a poet, Jeffers' writings are infused with the magic of the night sky from long before he even dreamed of building his tower, but the stone structure with its small lamp focused his attention:

“this August night in a rift of cloud Antares reddens,
The great one, the ancient torch, a lord among lost children,...
Of a lost fire dying in the desert... Wandered from at dawn...”

A few lines later, the poet delights his readers with his casual familiarity of the night sky:

“Oh passionately at peace when will that tide draw shoreward?
Truly this pouting fountains of light, Antares, Arcturus,
Tire of their flow, they sing one song but they think silence.
The striding winter giant Orion shines, and dreams darkness.”

Jeffers invokes images from all over the sky in this poem. Antares is a monarch of the summer sky, shining brightly at the head of the scorpion. Arcturus reigns from spring to fall in the northern constellation of the herdsman, but Orion rules though sky of winter, dominating the night with his magnificent belt of three bright stars surrounded by four even brighter stars, so that the whole complex resembles a magnificent structure not unlike the tower from which Jeffers is observing.

It is easy to fathom Jeffers' interest in astronomy, in part because his brother, Hamilton Jeffers, was a famous astronomer who worked at the Lick Observatory. Known for his precise work, he photographed comet Schorr of 1918, helping to refine its orbit. Asteroid 1934 Jeffers forever honors his contributions to astronomy, and if I may be so bold as to add, his inspiration for his brother Robinson to write poetry.

If Jeffers' lines help us to appreciate the beauty of the night sky, the writings of Kenneth Rexroth demonstrate its detail in “Another Spring”:

“High in the sky the Northern Crown
Is cut in half by the dim summit of a snow peak.”

This poet obviously knew how to use a telescope. In “The heart of Herakles”, he writes how, as “Constellations climbed the sky,”

“As the cluster of Hercules
falls down the west
I put the telescope by
and watch Deneb
move towards the zenith.
My body is asleep. Only
my eyes and brain are awake.”

I have viewed Messier 13, the wonderful globular star cluster in Hercules that showcases over a hundred thousand stars, hundreds of times through dozens of telescopes. The cluster has never failed to amaze me, its magnificent structure lighting up the night sky and my imagination. It is easy to find these nights as it sets in the west, beckoning us to appreciate both it and the poet who admired it so much. When we read these poems, we are transformed to a new world where only our eyes and brains need be awake. Their poetry only makes the priceless gem of the night sky even richer.

Moon Phases



November 19 2015



November 25 2015



December 3 2015



December 11 2015

November

The guest of honour for November

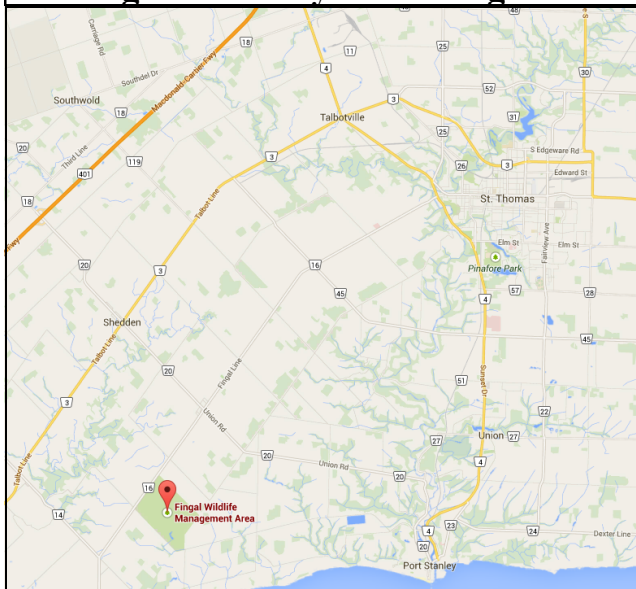
will be

Michael Watson

and his talk is

Astrophotography with Portable Mounts.

Fingal Dark Sky Observing Site



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The ESA sent tardigrades into space in a mission they called Tardigrades in Space. For 12 days in September 2007, some 3000 water bears hitched a ride into space on ESA's orbital Foton-M3 mission. They shortened the mission name to **TARDIS!** Any Dr. Who fans present?

Sky Events for Late November and December

November 22 Uranus 0.9° N of Moon
 November 26 Aldebaran 0.7° S of Moon
 December 4 Jupiter 1.8° N of Moon
 December 6 Mars 0.1° N of Moon
 December 7 Venus 0.7° S of Moon
 December 14 Geminid meteors peak



Mercury not visible
 Venus in the dawn sky
 Mars in the morning sky in Virgo, rising near 3am
 Jupiter rises in the east well after midnight in Leo
 Saturn not visible
 Uranus well placed in evening sky, retrograding in Pisces
 Neptune well placed in early evening sky, setting near midnight



R.A.S.C. London Centre Library Books of the Month November 2015 By Robert Duff

As always, these “Books of the Month” are available for loan to members, to be returned at the following monthly meeting. The books for November 2015 are as follows:

Cataclysmic Cosmic Events and How to Observe Them, by Martin Mobberley. c2009. (Astronomers’ Observing Guides)

In Search of Time: Journeys Along a Curious Dimension, by Dan Falk. c2008.

The Science of Shakespeare: A New Look at the Playwright’s Universe, by Dan Falk. c2014.

For a complete listing of our library collection please go to the Main Menu on the left side of the RASC London Centre Web site main page and click on Club Library: <http://www.rasclondon.ca/index.php/library-and-rentals>

If there is a particular book or video you wish to borrow, please feel free to contact me by telephone at (519) 439-7504 or by e-mail at rduff@sympatico.ca

Cronyn Observatory 75th Anniversary, October 24th / 25th, 2015

By Robert Duff, RASC London Centre

On Saturday and Sunday, October 24th and 25th, 2015, Western University’s Hume Cronyn Memorial Observatory celebrated its 75th Anniversary, since its official opening on October 25th, 1940. A committee composed of faculty, staff and graduate students along with RASC London Centre members met over the preceding months planning this event. They organized the basement into a historic exhibit recreating the environment in which the Cronyn Observatory’s principal moving force, Dr. H. R. Kingston, and unofficial curator, Rev. W. G. Colgrove, worked. The big 25.4cm refractor in the dome was repainted Western purple and a decal “Cronyn Observatory” placed on the finderscope. The celebration included events on Saturday and Sunday, October 24th and 25th, 2015.

There was a private ceremony for invited guests, Saturday, October 24th, 2015, 6:30—8:00 p.m. Professor Jan Cami was the MC with welcome remarks from the Chair of the Department of Physics and Astronomy, followed by the Associate Dean of Science. Western University’s President Amit Chakma spoke and invited the stage party to unveil the 75th Anniversary plaque and stand for photos. This was followed by a reception, with opportunities for guests to visit other rooms of the Observatory. The event was open to the public 8:00—11:00 p.m. with a re-enactment of the 1940 opening ceremony followed by tours of the historic exhibit in the basement and the Observatory dome.

The agenda for Sunday, October 25th, 2:00—5:00 p.m., included another re-enactment of the 1940 opening ceremony, followed by tours of the Observatory’s historic exhibit and dome by Professor Jan Cami. There was solar observing through filtered telescopes on the Observatory’s roof patio outside the dome.

November 2015

Cronyn Observatory 75th Anniversary Celebration, October 24th, 2015

Cloudy, rainy skies, with some partial clearing later in the evening greeted visitors to Western University's Hume Cronyn Memorial Observatory 75th Anniversary celebration, Saturday, October 24th, 2015, 6:30—11:00 p.m.

There was a private ceremony for invited guests, 6:30—8:00 p.m. Professor Jan Cami was the MC with welcome remarks from Professor Bob Sica, the Chair of the Department of Physics and Astronomy, followed by Professor Pauline Barmby, Associate Dean of Science. Western University's President Amit Chakma spoke and invited the stage party to unveil the 75th Anniversary plaque and stand for photos. This was followed by a reception, with opportunities for guests to visit other rooms, including the historic exhibit in the basement and the Observatory dome. The guests included current and emeritus faculty members and among the invited guests was Barry Colgrove, grandson of W. G. Colgrove, who arrived accompanied by his wife Marlene and 3 grown children, Sarah, Jeffrey and Laura Colgrove and bringing the 1942 Chant Medal for inspection.

The event was then opened to the public with a re-enactment of the 1940 opening ceremony. RASC Toronto Centre President and David Dunlap Observatory Committee Chair Paul Mortfield read Dr. Clarence Chant's original speech. (University of Toronto's Dr. Clarence Chant was RASC President 1904—1907 and moving force behind the building of the David Dunlap Observatory, opened 1935.) RASC London Centre's Mark Tovey read Dr. H. R. Kingston's speech complete with "lantern slides" shown on a digital projector. Mark was dressed in period costume complete with H. R. Kingston's original top hat! This was followed by tours of all rooms of the Observatory until 11:00 p.m. A partial clearing of the sky around 10:00 p.m. enabled visitors to view the 4-day-past-first quarter gibbous Moon through the 25.4cm refractor in the dome.

Professor Jan Cami was chair of the Cronyn 75th Anniversary planning committee and among those present were the other members of the committee, including graduate students Dilini Subasinghe, Parshati Patel, Shannon Hicks, Kendra Kellogg and Emily McCullough; and Physics & Astronomy staff members Henry Leparskas, Phin Perquin, Mike Debruyne, Peter Frank and other members of Physics and Astronomy staff. RASC London Centre members present and on the Cronyn 75th Anniversary planning committee included Dale Armstrong, Bob Duff, Peter Jedicke, Paul Kerans (with Charlene Kerans), Tricia Colvin and Mark Tovey.

RASC London Centre Public Outreach Coordinator and Past President Dave McCarter was among the invited guests and other London Centre members who showed up included Dave Clark, Everett Clark, Eric Clinton, Roman Dubinski, Bob Duff, Steve Gauthier, Patrick Whelan, Joe O'Neil and Mike Flegel. Other guests included RASC Archivist, Randall Rosenfeld and RASC Toronto Centre President and David Dunlap Observatory Chair Paul Mortfield.

Faculty members present included Professors Sarah Gallagher, Paul Wiegert, Aaron Sigut, Stan Metchev, Els Peeter, Carol Jones, Martin Houde, Phil McCausland and others. Professors Emeritus Patrick Whippey, Amelia Wehlau, Jim Moorhead, and John Landstreet (with wife Barbara and daughter Sarah) were there along with retired observatory technician, Michel (Mike) Debruyne. Communications, Public Relations and Science Engagement Director, Marilyn Steinberg was also among those present.

Peter Jedicke and Physics and Astronomy Undergraduate Assistant, Keri Knox, greeted arriving visitors and handed out a selection of 5 special 75th Anniversary commemorative postcards. Peter later served with Paul Wiegert as lecture room usher for the ceremony. There were 10 informational and 3 commemorative / decorative posters on display in the entrance foyer (Hume Cronyn and family), lecture room, stairway, basement and dome, made for the occasion with the intent of keeping them at the Cronyn Observatory permanently.

Graduate student Tony Martinez and undergraduate student William Hyland served as guides as visitors toured the basement black room, made into an "artifact room" which included the Sotellunium—a mechanical eclipse demonstration model—built by W. G. Colgrove, along with research equipment such as a stellar photometer, used by Dr. William Wehlau, and artifacts, such as a sundial canon and various posters and old photographs. There was a slide show playing as well with historical images of the Cronyn Observatory.

Mark Tovey wore H. R. Kingston's top hat for the re-enactment and later downstairs in the "period room" seated at Kingston's desk. The "period room" recreated H. R. Kingston's office, based on a photograph from 1940, and was designed by Mark Tovey. Serving as costumed historical interpreters in the "period room," with Mark were Tricia Colvin, Peter Jedicke and Paul Wiegert. Also on display in the "period room" was the Dresden meteorite (from Western's Earth Sciences Department) in a glass case alongside a cast of the meteorite (loaned for the occasion by the London Life Insurance Company). The original guest book was in a glass case on a table with a poster on the wall above displaying and identifying the signatures, as well as a new guest book for visitors to sign. Official photographers included P&A staff member Henry Leparskas, who took care of video coverage and still photography; with additional still photography by Dale Armstrong, Western Science Communications Officer Mitchell Zimmer, graduate students Ghazal Farhani and Parshati Patel, and undergraduate student Ian Mullholland.

Graduate students Dilini Subasinghe and Laura Lenkic were telescope operators for the evening. Graduate student and London Centre member Emily McCullough served as guide in the dome. When the clouds partially cleared around 10:00 p.m., they opened the dome and began showing visitors the Moon through the big 25.4cm refractor, using the 52mm Erfle (84X) and then the 32mm Erfle (137X) eyepieces.

There were an estimated 100—130 visitors for the evening, which ended with Emily McCullough closing the dome at 11:45 p.m. It

was a very fitting celebration of the Cronyn Observatory's 75th Anniversary.

Cronyn Observatory 75th Anniversary Celebration with Solar Observing, October 25th, 2015

Partly cloudy skies greeted visitors to the second day of Western University's Hume Cronyn Memorial Observatory 75th Anniversary celebration, Sunday, October 25th, 2015, 2:00—5:00 p.m. The agenda included another re-enactment of the 1940 opening ceremony, followed by tours of the Observatory by Professor Jan Cami. There was solar observing through filtered telescopes on the Observatory's roof patio outside the dome.

The event began around 2:20 p.m. with introductory remarks by Professor Jan Cami and was followed by another re-enactment of the 1940 opening ceremony. Since RASC Toronto Centre President and David Dunlap Observatory Committee Chair Paul Mortfield had departed for Toronto, RASC Archivist, Randall Rosenfeld read Dr. Clarence Chant's original speech. Once again, RASC London Centre's Mark Tovey read Dr. H. R. Kingston's speech complete with "lantern slides" shown on a digital projector. Mark was, once again dressed in period costume complete with H. R. Kingston's original top hat! There were some 27 people present for this presentation, including Physics and Astronomy Undergraduate Assistant Keri Knox and staff member Henry Leparskas; and RASC London Centre members Dale Armstrong (photography), Peter and Dianne Jedicke, Mark Tovey and Bob Duff.

Professor Jan Cami conducted 4 tours totaling 60 visitors of the Cronyn Observatory. Other faculty members present included Professors Sarah Gallagher and Peter Brown. Department of Philosophy Professor Emeritus Howard Plotkin was also there. Graduate students Dilini Subasinghe and Parshati Petel were there, along with Tony Martinez who acted as a guide for the astronomical instruments in the basement. Tricia Colvin served as a costumed guide in the "period room" along with Mark Tovey, dressed in period costume as H. R. Kingston and wearing H. R. Kingston's top hat.

There were 3 telescopes set up for solar observing on the roof patio outside the dome. Undergraduate student William Hyland showed visitors sunspots on the Sun through the Observatory's (unpowered) 8-inch (20.3cm) Schmidt-Cassegrain (26mm Plossl eyepiece, 77X) with a Kendrick Astro Baader film solar filter. He had some assistance from Dale Armstrong. RASC London Centre member Paul Kerans set up the Observatory's 90mm Coronado H-Alpha Solar Telescope (18mm Plossl eyepiece, 44X) on its EQ5 mount and showed visitors solar prominences on the Sun. Paul also showed visitor sunspots through his own 80mm Sky-Watcher refractor (21mm Ethos eyepiece, 28.6X) and glass solar filter. Professor Jan Cami showed some visitors solar prominences on the Sun through the 90mm Coronado. Bob Duff later took over showing visitors solar prominences through the 90mm Coronado while Paul operated his 80mm Sky-Watcher refractor. There were good views of solar prominences on the edge of the

Sun as well as surface detail in the 90mm Coronado H-Alpha Solar Telescope. The broadband white light filters on the other 2 telescopes showed excellent views of sunspots.

There were perhaps 60 people who took part in the tours conducted by Professor Jan Cami and quite a few visitors viewed the Sun through the 3 solar filtered telescopes.

The Observatory was finally closed down beginning around 5:00 p.m., bringing to an end what was truly a fitting celebration of the Cronyn Observatory's 75th Anniversary.

For a more complete account of the Cronyn Observatory 75th Anniversary, October 24th / 25th, 2015, please watch for a planned article to appear in the Journal of the Royal Astronomical Society of Canada.

Cronyn Observatory Exploring the Stars, October—November 2015

By Robert Duff

Exploring the Stars, 60th London Girl Guides, October 13th, 2015

Cloudy skies greeted 11 girls and 2 leaders from the 60th London Girl Guides for Exploring the Stars at Western University's Cronyn Observatory, Tuesday, October 13th, 2015, 6:30 p.m. They were joined by a parent around 7:40 p.m., bringing the total 14 visitors (11 children and 3 adults). Graduate student Dilini Subasinghe made the digital slide presentation "Girl Guide Astronomy Badge," beginning 6:35 p.m. and lasting 45 minutes with many questions from the girls. This was followed by the activity "Telescope Kits," with the girls assembling small reusable telescopes from kits and focusing them on a slide presented by Dilini along with another slide showing how a refractor telescope worked.

Since it was cloudy the dome remained closed and RASC London Centre member Paul Kerans set up the London Centre's Dobsonian. Paul gave a brief talk on the history of the Cronyn Observatory and how telescopes worked. Graduate student Laura Lenkic followed, showing the girls the different parts of the telescope (the lenses) and pointing out that there were 5 different telescopes, including the Schmidt camera, the Cassegrain-reflector and the 2 finderscopes, all mounted on the big 25.4cm refractor. Laura then briefly opened the dome, so that everybody could see it in action.

Paul then showed the girls the wind turbine on the Engineering building through the 25.4cm Dobsonian (17mm Nagler eyepiece, 66X), set up just inside the dome so as to view out the door to the roof patio. He also showed them the 2 meteorites he had brought, a stony and stony iron. He also distributed the pamphlet "Getting Started in Astronomy" (RASC, SkyNews [2015]) to all the kids. It was an enjoyable evening for the Guides, learning about astronomy and telescopes, and ended around 8:00 p.m.

**Exploring the Stars, Jean Vanier School, Grade 6 Class,
October 19th, 2015**

Partly cloudy, later clearing skies greeted 37 visitors (21 children and 16 adults) from the Jean Vanier Catholic School Grade-6 class for Exploring the Stars at Western University's Cronyn Observatory, Monday, October 19th, 2015, 7:00 p.m. Graduate student Dilini Subasinghe made 2 digital slide presentations, which included "Our Solar System" followed by a shorter version of "Galaxies," and fielded questions.

RASC London Centre was represented by Paul Kerans and Bob Duff. When everybody arrived upstairs in the dome, Bob gave a talk about the history of the Cronyn Observatory and technical aspects of the big 25.4cm refractor. Bob also explained the Standard and Sidereal Time clocks on the east wall. Dilini showed the visitors the one-day-prior-to-first quarter Moon in the big 25.4cm refractor (52mm Erfle eyepiece, 84X). On the roof patio outside the dome Paul operated the London Centre's 25.4cm Dobsonian (17mm Nagler eyepiece, 66X), showing visitors the Moon, M31 and the Owl Cluster (NGC457). Paul also showed them an iron meteorite he had brought. The adults took 6 "Getting Started in Astronomy" (RASC, SkyNews [2015]) pamphlets that Bob introduced to them. The visitors were gone by 8:30 p.m. after an enjoyable evening of astronomy.

**Exploring the Stars, Canadian Association for Girls in
Science, Matthews Hall School, October 20th, 2015**

Mostly cloudy skies greeted 31 visitors (18 children and 13 adults) from the Canadian Association for Girls in Science (CAGIS), Matthews Hall School Chapter, for Exploring the Stars at Western University's Cronyn Observatory, Tuesday, October 20th, 2015, 7:00 p.m. Graduate student Tony Martinez made the digital slide presentation "The Earth & Moon," fielding questions as he spoke.

RASC London Centre was represented by Paul Kerans and Bob Duff. The sky cleared sufficiently to reveal the first quarter Moon early in the evening and Bob went down and interrupted the slide presentation to invite the visitors up into the dome before the sky completely clouded over. The children gave Tony an affirmative vote and Bob brought everybody upstairs to view the Moon. Bob showed them the Moon between occasionally obscuring clouds in the big 25.4cm refractor (32mm Erfle eyepiece, 137X). Paul showed them the Moon in the London Centre's 25.4cm Dobsonian (17mm Nagler eyepiece, 66X) set up on the roof patio outside the dome.

Bringing everybody back downstairs, Tony continued with his slide presentation, demonstrating the phases of the Moon and eclipses using the Sotellunium—a mechanical eclipse demonstration model—set up on a table at the front of the room. He followed this with the activity "Telescope Kits," showing the children how to assemble a telescope from a small reusable kit and then distributing 15 fully assembled telescopes to groups of children to focus by looking out the windows.

The visitors were gone by around 9:00 p.m. after a very enjoyable and educational evening learning about the Earth and the Moon and viewing the Moon through telescopes.

**Exploring the Stars, 2nd Thamesford Brownies and Guides,
November 4th, 2015**

Mostly clear skies with a few clouds later greeted 27 visitors (18 children and 9 adults) from the 2nd Thamesford Brownies and Guides for Exploring the Stars at Western University's Cronyn Observatory, Wednesday, November 4th, 2015, 6:30 p.m. Graduate student Laura Lenkic presented the digital slide presentation "The Girl Guide Astronomy Badge" and fielded questions. Laura followed this with the activity "Kitchen Comet," inviting the children and adults to the table set up at the front of the lecture room where she made a comet from dry ice and other materials.

RASC London Centre was represented by Paul Kerans and Bob Duff. When everybody arrived upstairs in the dome, Bob gave a brief talk about the Cronyn Observatory, including some technical aspects of the big 25.4cm refractor, and explained the Standard and Sidereal Time clocks on the east wall. Bob assisted Laura with directing the big 25.4cm refractor (28mm Meade Super Wide Angle eyepiece, 157X) towards the yellow and blue double star Albireo. Laura supervised as children and adults climbed the observing ladder to view Albireo through the big 25.4cm refractor.

On the roof patio outside the dome, Paul directed the London Centre's 25.4cm Dobsonian (17mm Nagler eyepiece, 66X) towards the Andromeda Galaxy (M31). Paul showed the visitors M31 for a while until Bob took over operating the 25.4cm Dobsonian, while Paul showed them an iron meteorite along with samples of Mars and Moon rocks in small display cases. There was 1 "Getting Started in Astronomy" (RASC, SkyNews [2015]) pamphlet given to one interested man. The visitors were gone by 8:25 p.m. after a very enjoyable evening of astronomy.

Please see the on-line edition of the Polaris newsletter for any additional star night reports not included in this printed edition at: <http://www.rasclondon.ca/index.php/polaris-newsletter>