Rochester Skies

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RAC Hosts the 2017 NCRAL Conference

by John Attewell

The Rochester Astronomy Club (RAC) will host the annual meeting of the North Central Region of the Astronomical League (NCRAL) April 21-23, 2017. The conference website and registration can be accessed at http://ncral2017.rochesterskies.org/. Please note that registration for on-site housing will be closed February 23rd!!

This year's theme is "Astronomical Observing." The conference will feature a full line-up of lectures, panel discussions, demonstrations, and vendor exhibits. The speaker roster includes astronomers and scientists from the University of Iowa, Iowa State, NCRAL, the Minnesota Astronomical Society, University of Minnesota and Winona State University.

The venue will be at the Eagle Bluff Environmental Learning Center

located about 40 miles southeast of Rochester, on the crest of the rolling hills north of Lanesboro, Minnesota, a town of about 750 residents. Eagle Bluff (http://www.eagle-bluff.org/) is not a hotel but a learning center suited for groups and will have the feel of both a conference and a star party. The campus has reception and exhibit

continues on next page

Highlights:

RAC Web Page:

http://www.rochesterskies.org

Most meetings are held at the Rochester Community College every second Tuesday of the month at 7:00 pm in the East Hall building, room EA121.

#26th *RAC* Newsletter
Deadline May 2017

Please consider contributing to the RAC newsletter. Have a favorite astronomy topic? Want to share your astrophotography interest? Write about your astronomy experience. Any suggestions for the newsletter is, also, appreciated. Send your contributions to

rochesterskies@outlook.com

Photo of the Horsehead Nebula (Barnard 33) in the nameplate by Mike Carlin.

2017 NCRAL Annual Meeting from previous page

areas, classrooms, a multi-use auditorium, a large dining hall, and 31 on-site dormitory-style rooms arranged in "pods." Each room has a private bathroom with shower and will house up to four people. Rooms will also be available in nearby Lanesboro, but we highly suggest that you take advantage of the accommodations and stay on-site at Eagle Bluff – great views of star clusters, nebulae, and galaxies under excellent dark skies will be just outside the door.

Registration at http://ncral2017.rochesterskies.org/.
On-site housing will be closed February 23rd!!

M81 and M82
Photo by Mike Carlin

Seeing Darkness in a Whole New Light...
The Common Concern

by Larry Mascotti

Getting Started*...In the beginning, the universe was nothing but swirling vapors and chaos. From these vapors, the forces of Yin and Yang emerged. The two forces combined to create all things, and all things created contained elements of both… Chinese mythology*

Tintoretto…the origin of the Milky Way

Although I do not know exactly what it was like to neither have lived long, long ago nor have I experienced life as a nomad moving across a great desert, but I do know there is a commonality I share with all people who ever lived. It is the experience of existing underneath the universal heavens. The canopy of the starry night is an echo chamber-a place where we hear (first literature-myths) and see (first art-constellations) our human story, unfold in the context of the universe. It is **the** place, where we hear our voice articulate the questions about our existence. A place where we take measure of our progress in our dialogue with Nature and it is a gathering space where we actively listen in our intimate commune with its grandeur. It has been the common concern of all people through all time.

For our most distant ancestors, those of Neolithic times of 20,000 to 100,000 ago, the universe was what you experienced in your immediate surroundings. The daily cycle of light and dark along with weather dominated your relationship with the environment. Things outside your daily experience such as the birth of a child would have appeared to be supernatural events. A fragile level of security was gained through prayers, sacrifices and gifts to the spirits.

Cultures begin to emerge between 5,000 to 15,000 years ago with the domestication of animals and the beginnings of agriculture. This greater sense of permanence in daily existences leads to the development of myths, particularly creation myths to explain the origin of the universe. Celestial objects become practical tools for telling time, locating place and determining fate (astrology).

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The Common Concern from previous page

Between 600 BC and start of the Roman Empire an intellectual approach based on evidence, reason, mathematics and debate debuts with Greek philosophy. Roots for a modern approach to understanding the universe extend to this time as the underlying theme in Greek thought is the use of observation and experimentation to search for simple, universal principles. Though as the words of Euclid suggest this was not an inclusive perspective. When a student Euclid was tutoring wondered aloud what might be the use of geometry, Euclid told his slave, "Give him a coin, since he must gain from what he learns."…

Barriers Build… *Do not seek to know high things… St. Augustine*

Our human connection to nature has been a transformative journey that became interrupted with notions that kept us at a distance from it. St. Augustine's viewpoint is told in the ancient myth of the winged Icarus. One should not seek knowledge that has not been divinely given is the lesson to be learned from Icarus's plunging into the sea as the sun melted the wax binding his wings.

In time, St Augustine and St. Aquinas developed in the West a scripture oriented philosophy that accepted Aristotle's thoughts as the ultimate secular authority. It was a time when the borders between church and state were generally invisible in some cultures.

The historical period of the European Middle Ages or medieval period, from the 5th to the 15th century, was a time that did not foster intellectual curiosity about nature. In the mind of Bernard of Clairvaux, 1090 – 1153, Adam's fall from God's grace through his curiosity was, "the beginning of all sin." England's King James I, 1566 –1625, referenced Eve for evidence of how curiosity could harm someone. Pope Innocent III, 1160 or 1161 – 1216, disapproved of men learning the, "height of the sky, the breath of the earth and the depth of the sea." Again, these words underscore the resistance to scientific thinking as we know it. As St. Ambrose put it in the 14th century, "To discuss the nature and position of the earth does not help us in our hope for the life to come." Wrote Tertullian the convert, "For us, curiosity is no longer necessary." As Victor Stenger reminds us, we often see arguments advanced by non-scientists from this perspective, "While the value of reason and observation is recognized, these are generally viewed as inferior to revelation since they are products of imperfect human activity, whereas revelation came directly from God."

Next time on Common Concern... Heading towards Heliocentric

Sky Events

all times are local Rochester, MN, time

Feb	07		Mercury at aphelion
	10	18:33	*FULL MOON*
	11	08:00	Regulus 0.8°N of Moon
	15	09:00	Jupiter 3°S of Moon
	17		Jupiter at aphelion
		01:00	**Venus greatest illuminated extent**
	18	13:33	*LAST QUARTER MOON*
		15:00	Moon at apogee (251,267.6 mi)
	20		Venus at perihelion
		17:00	Saturn 4°S of Moon
	26	08:58	*NEW MOON*
	27	13:45	Mars 0.6°N of Uranus
Mar	01	13:00	Mars 4°N of Moon
	02	15:00	Ceres 0.8°N of Moon
	03	02:00	Moon at perigee (229,324.5 mi)
	04	21:00	Aldebaran 0.2°S of Moon; occultation
	05	05:32	*FIRST QUARTER MOON*
	10	17:00	Regulus 0.8°N of Moon
	12	02:00	**Daylight Saving Time**
		09:54	*FULL MOON*
	14	15:00	Jupiter 2°S of Moon
	18	12:00	Moon at apogee (251,437.9 mi)
	20	05:00	Saturn 3°S of Moon
		05:29	**EQUINOX**
		10:58	*LAST QUARTER MOON*
	26	03:00	Neptune 0.005°N of Moon
	27	01:00	Mercury 2°N of Uranus
		21:57	*NEW MOON*
	30	07:00	Moon at perigee (226,087.8 mi)
Apr	01	04:00	Aldebaran 0.3°S of Moon
	03	15:39	*FIRST QUARTER MOON*
	07	00:00	Regulus 0.7°N of Moon
		17:00	Jupiter at opposition
	10	16:00	Jupiter 2°S of Moon
	11	01:08	*FULL MOON*
	15	05:00	Moon at apogee (251,950.5 mi)
	16	13:00	Saturn 3°S of Moon
	19	04:57	*LAST QUARTER MOON*
	22	17:00	Lyrid meteors peak
		15:00	Neptune 0.2°S of Moon
	23		Venus 5°N of Moon
	26	07:16	*NEW MOON*
	27	*11:00*	Moon at perigee (223,275.4 mi)

Date	Red-CST Sunrise	Blue-CDT Sunset
Feb 01	07:27	17:21
Feb 15	07:09	17:40
Mar 01	06:46	17:59
Mar 15	07:22	19:16
Apr 01	06:51	19:37
Apr 15	06:26	19:54
May 01	06:01	20:14

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RAC Social Media

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