

WEYMOUTH ASTRONOMY

Sky Watcher

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Trips / Events

Ideas for trips and events
always welcome!

events@weymouthastronomy.co.uk

Dec 18—Christmas social and
members' images/short talks

The 2020 programmes will be
released soon. Watch this space
for more!



If you are interested in giving a
talk or workshop, let the organisers
know. They like to offer new
titles in their programme line-up.



WAC Upcoming Events:

10th Jan	10 Minute Talks by Members
14th Feb	Robin Catch- pole - Frontiers
13th Mar	Nick Higginbot- tom - Cataclys- mic Variables, X- ray Binaries & Stellar Canni-
3rd Apr	David Bacon - The Dark Ener-
1st May	AGM + John Macdonald -



Portal to the Heritage of Astronomy

A fascinating site
which is called
the portal to the

Heritage of Astronomy is a one stop to
raise awareness of the importance of astro-
nomical heritage worldwide and to facilitate
efforts to identify, protect and preserve
such heritage for the benefit of humankind,
both now and in the future.

<https://www3.astronomicalheritage.net/>

Recently it was announced that UNESCO's
World Heritage Committee has selected
two new astronomical World Heritage Sites: Jodrell Bank Observatory (UK) and
Risco Caído and the sacred mountains of Gran Canaria (Spain).
[://www3.astronomicalheritage.net/index.php/home/news](https://www3.astronomicalheritage.net/index.php/home/news)



The front covers of the nomination dossiers for the two new World Heritage Sites

Hope you all have a joyous holiday season.

Very best wishes for 2020!

Until next time...SLK



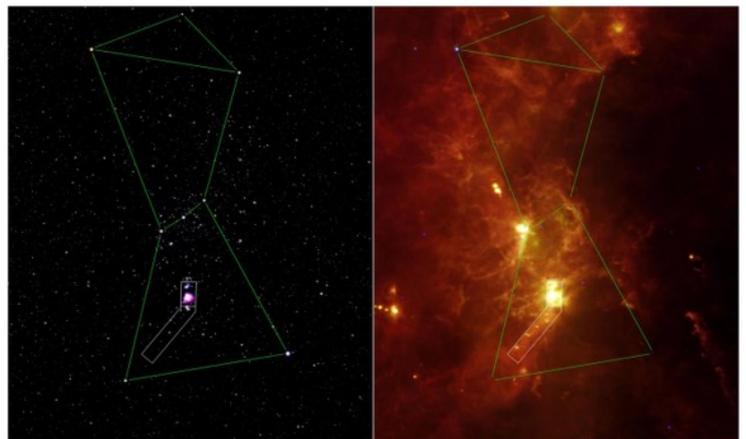
The Orion Nebula: Window Into a Stellar Nursery by David Proper

Winter begins in December for observers in
the Northern Hemisphere, bringing cold nights
and the return of one of the most famous
constellations to our early evening skies: Orion
the Hunter!

Orion is a striking pattern of stars and is one of
the few constellations whose pattern is
repeated almost unchanged in the star stories
of cultures around the world. Below the three
bright stars of Orion's Belt lies his sword,
where you can find the
famous Orion Nebula, also
known as M42. The
nebula is visible to our
unaided eyes in even
moderately light-polluted
skies as a fuzzy "star"
in the middle of Orion's
Sword. M42 is about 20
light years across, which
helps with its visibility
since it's roughly 1,344
light years away! Baby
stars, including the
famous "Trapezium"
cluster, are found inside
the nebula's whirling gas
clouds. These gas clouds
also hide "protostars"
from view: objects in the
process of becoming

stars, but that have not yet achieved fusion at
their core.

The Orion Nebula is a small window into a
vastly larger area of star formation centered
around the constellation of Orion itself.
NASA's Great Observatories, space
telescopes like Hubble, Spitzer, Compton, and
Chandra, studied this area in wavelengths we
can't see with our earthbound eyes, revealing
the entire constellation alight with star birth,
not just the comparatively tiny area of the
nebula. Why then can we only see the
nebula? M42 contains hot young stars whose
stellar winds blew away their cocoons of gas
after their "birth," the moment when they begin



Caption: This image from NASA's Spitzer missions shows Orion in a different light – quite
literally! Note the small outline of the Orion Nebula region in the visible light image on the left,
versus the massive amount of activity shown in the infrared image of the same region on the
right. Image Credit: NASA/JPL-Caltech/IRAS/H. McCollon. From bit.ly/SpitzerOrion



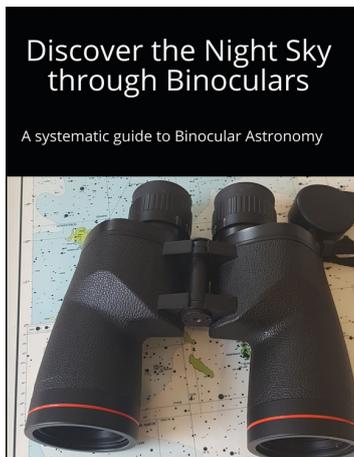
to fuse hydrogen into helium. Those gas clouds, which block visible light, were cleared away just enough to give us a peek inside at these young stars. The rest of the complex remains hidden to human eyes, but not to advanced space-based telescopes.

We put telescopes in orbit to get above the interference of our atmosphere, which absorbs many wavelengths of light. Infrared space telescopes, such as Spitzer and the upcoming James Webb Space Telescope, detect longer wavelengths of light that allow them to see through the dust clouds in Orion, revealing hidden stars and cloud structures. It's similar to the infrared goggles firefighters wear to see through smoke from burning buildings and wildfires.

Learn more about how astronomers combine observations made at different wavelengths with the Night Sky Network activity, 'The Universe in a Different Light,' downloadable from bit.ly/different-light-nsn. You can find more stunning science and images from NASA's Great Observatories at nasa.gov.



Interesting Finds of the Month

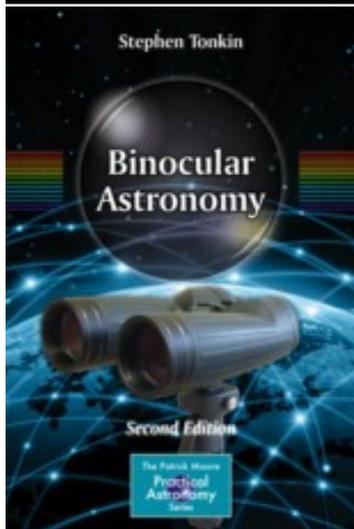


Stephen Tonkin

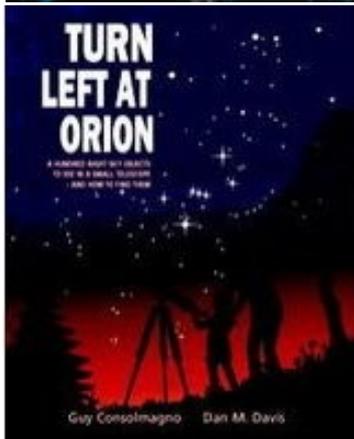
Stephen Tonkin has made it his mission to encourage astronomers, both new and experienced to access the wonders of the heavens using the simplicity of binoculars. He has written several excellent books on the subject which include tips on selecting binoculars to excellent observing guides.

Using his website <http://binocularsky.com/index.php> Stephen compiles all sorts of interesting and useful information on the subject and made it accessible to all.

Another great feature on the site is a chart selector which allows the user to have a sky chart generated for today's date at a selected time for 51N. This covers on average a majority of UK users providing at a glance interesting binocular objects on show that night. http://binocularsky.com/map_select.php



One other book I was very glad to see featured in Stephen's book recommendation page was the classic 'Turn Left At Orion'. This volume I believe should be supplied with all new telescope owner purchases or top of their Christmas wish list. It is useful for both binocular viewers and small aperture telescope owners alike. It allows the night sky to become familiar to the user rather than a myriad of bright indistinguishable points of light.



Hope these are of interest to you as well!

Happy Holidays! ~SLK

