The Astronomical Society of Edinburgh

Image of the Quarter Competition

Oct - Dec 2021



www.astronomyedinburgh.org

COMPETITION

- 14 entries
- Criteria:
  - Composition
  - Processing
  - Effort
  - Skill
  - Artistry
  - The journey
  - …

Gut reaction!





David Harvey

Horsehead Nebula B33 LDN 1730

The Horsehead each year tends to be my benchmark target for a self diagnoses reality check on image capture and processing progress. Pleased to report this is the best in the 6 years I've been trying. My target view is restricted to the east side of the Meridian and means early am. for this target to rise above the line of neighbours houses to plan and capture a few hours of data.

2 Panel Mosaic comprising 30 light frames of each panel of 180secs each.

Technical Data - Canon 750Da, Takahashi 85 FSQ, Ioptron CEM25p, NINA

30 x 180secs/800 ISO STC Duo-band filter Lights + Darks/Flats/Bias.

pre in APP and post processing in StarTools 1.8 beta + Photoshop.

Nigel Goodman

IC342 Hidden Galaxy

Also known as Caldwell 5, I imaged this galaxy on a beautiful but windy night. Difficult target due to low surface brightness, caused by (I think) interstellar dust between us and the galaxy, otherwise it might be a naked eye object. I increased gain to 900, but kept my subs to 150 seconds in case of guiding issues. It is in the constellation of Camelopardalis, and estimated to be between 7 -11 million LY's away. A beautiful classic spiral galaxy



Ian Smith

Cygnus Wall

The Cygnus Wall is part of the North American nebula which also contains the Pelican nebula. The Wall consists of an emission nebula whose source of excitation was eventually tracked down to be J205551.3+435225 and its orbiting companion. Whilst these stars would appear as a magnitude 3.6, the dark cloud L935 dims it to an apparent 13.2 magnitude.

My image was obtained with a Skywatcher 190MN telescope, using a triband filter and a ZWO ASI294MC Pro camera, cooled to -20C, with a total of three hours of integration.

This was my first venture into a Hubble-like palette using Pixinsight software, having first stacked the image with Astro Pixel Processor software.



Mike McGovern

ARP 273

Imaged on 5th December 2021, ARP 273 is a pair of interacting galaxies at a distance of 300 million light years in the constellation of Andromeda at magnitude 13.7.

The bigger galaxy is UGC 1810 and the smaller one is UGC 1813, it's thought that the smaller galaxy has passed through the larger one with the disc of the larger galaxy being stretched because of the gravitational pull of UGC 1813.

Halton Arp published the Atlas Of Peculiar Galaxies in 1966 and there are 338 galaxies in the catalogue.

The image was taken using a SkyWatcher Explorer 300PDS and ZWO ASI294MC Pro with Optolong L-Pro filter. It's made up of 71 x 120 second exposures, 50 darks, 50 flats and 50 dark flats stacked in Astro Pixel Processor and processed in StarTools 8.

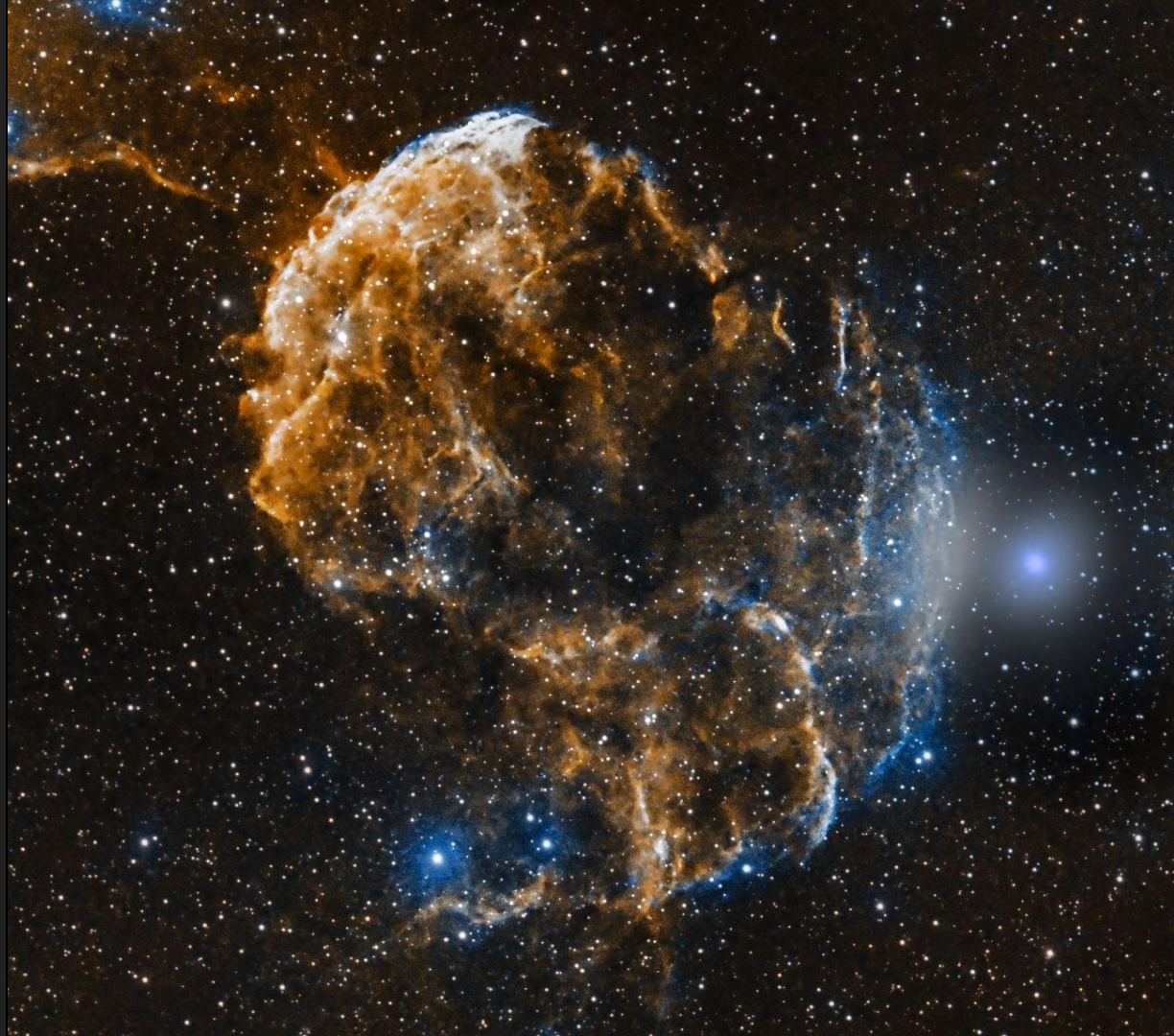


Pat Devine

Jellyfish Nebula

When I started imaging last year and first came across the Jellyfish nebula, it was a surprisingly lifelike target hanging in space. Many deep space objects have names that need a good deal of imagination to spot the resemblance, but not his one.

This image was taken from my garden in Craigleith/Ravelston, Edinburgh. It has a total exposure time of 102 minutes using my Celestron RASA Astrograph and an IDAS NBX narrowband filter on November 28th. Being in town there is so much light pollution a good narrowband filter is essential.



Ron Morley

NGC 7023 Iris Nebula

Imaging was performed on 1st and 5th December 2021 from near Kinross.
60mm Takahashi FS60C F/5.9 apochromatic refractor - focal length 355mm
Meade LX200 drive on wedge - polar aligned
No autoguiding used
Camera: SX Ultrastar monochrome
Luminance: 10 x 4 mins RGB: 5 x 4mins each.
All binned at 1x1

Image capture, pre and post-processing using AstroArt7.The 60mm is my guidescope fror the Meade LX200 250mm. The purpose of the imaging session was to check the tracking of the LX200and to have a ready set up for imaging (60mm refractor) and visual (250mm SCT). It showed that 4 min sub-frames were ok for the 60mm.

The image is of NGC7023 (Caldwell 4) the Iris Nebula some 1,500 light years distant probably formed around 5,500 year ago as a result of the central star coming into existence.



Ian Smith

Cas Nebula or IC59 and IC63

The Cas nebula consists of two component nebulae, IC59 and IC63. They are both being slowly dispersed by the monstrous magnitude 2.15 star Navi, located 3 or 4 light years distance from them. IC59 is predominantly a reflection nebula with a characteristic blue colour and IC63 is an emission nebula.

IC63 is also referred to as the Ghost of Cassiopeia and appears to be flying sideways towards Navi.

My image was obtained with a Skywatcher 190MN telescope, using a triband filter and a ZWO ASI294MC Pro camera, cooled to -20C, with a total of three hours of integration. Treated with a Hubble-like palette using Pixinsight software, having first stacked the image with Astro Pixel Processor software.

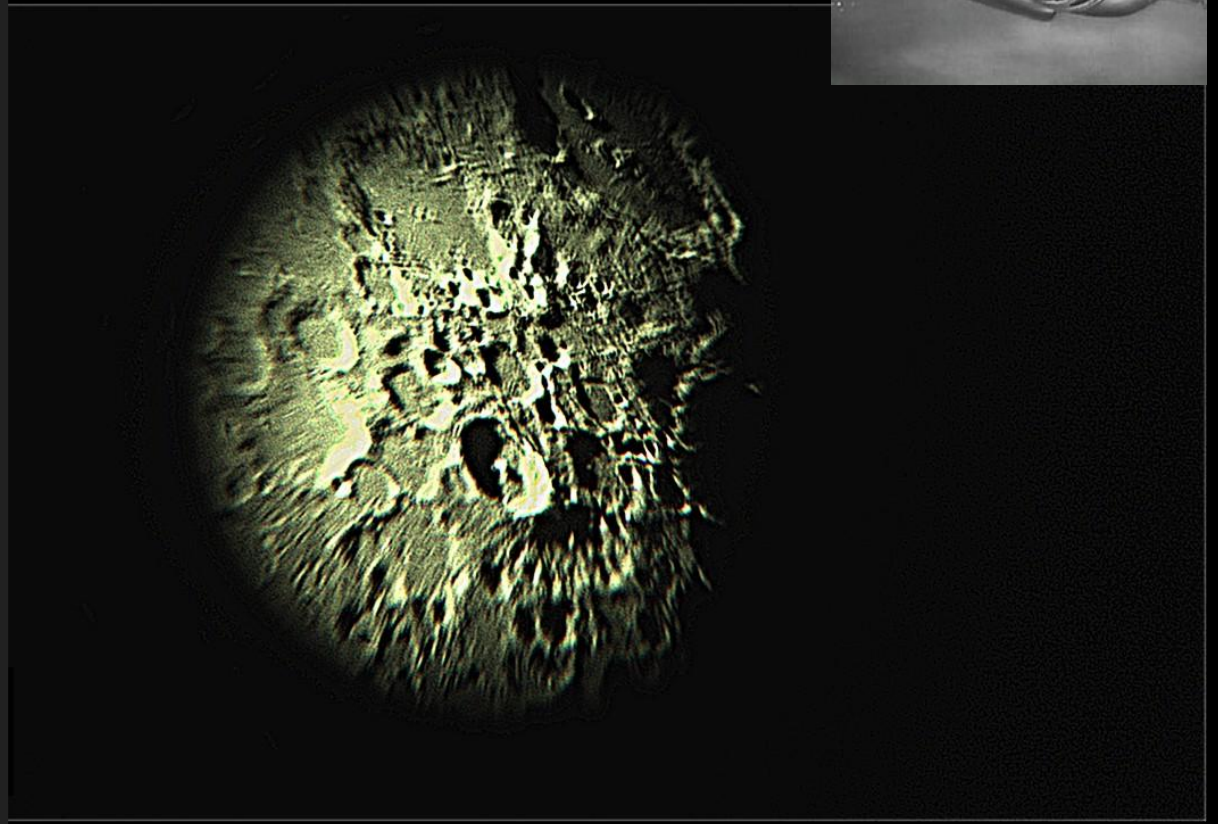


Hugh Somerville

Moon & L6 Tycho

Sat night 13th Nov. Was a good night for me. Some of my best Moon shots have already been shown, I decided for the first time ever to try the 2.1 mm lens that was supplied with the Altair-Astro GP290C. At least I would be able to workout focus etc. I didn't know what to expect but when I saw the result - just like the advert I thought "That'll do!"









Fran Goodman

The Hunter Rises

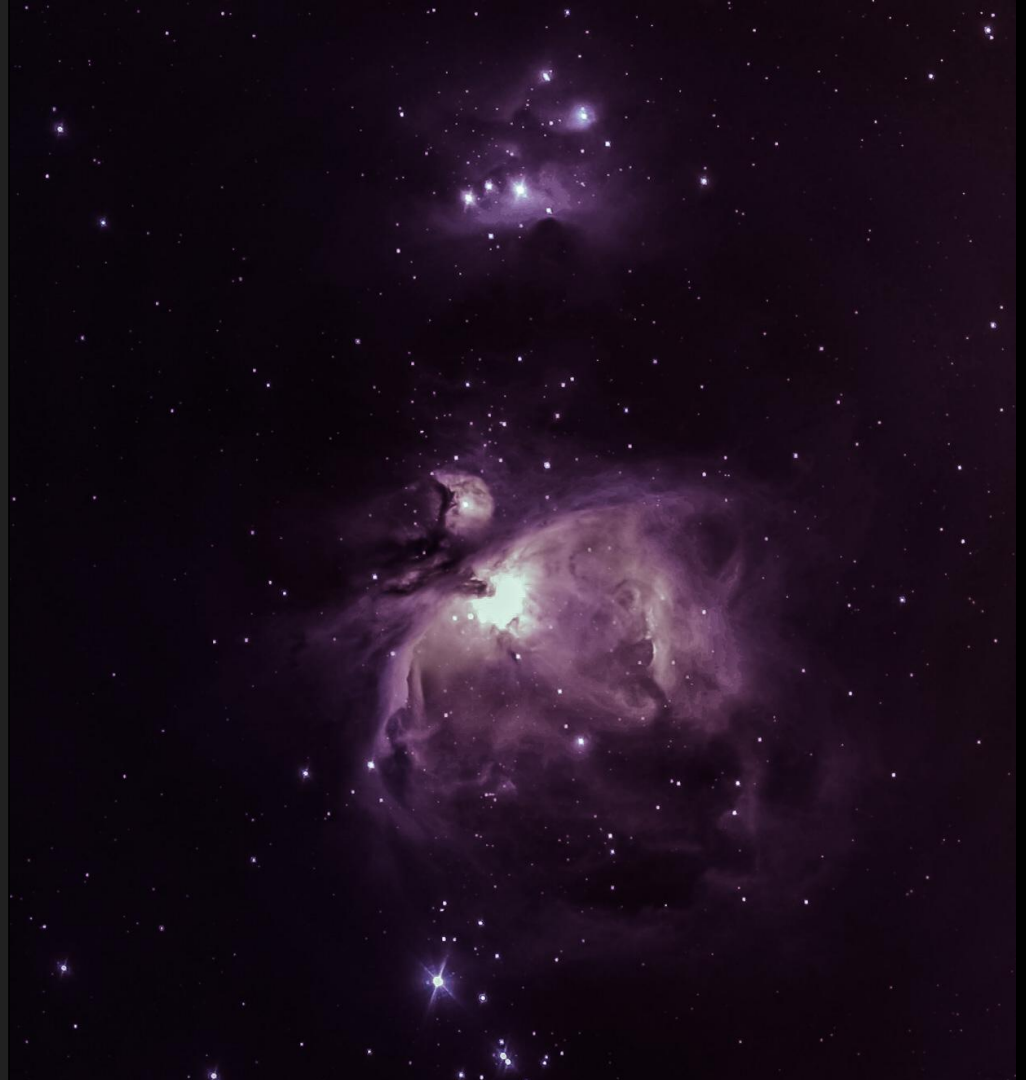
I was waiting to try and catch the aurora in the north and decided to turn round and face south only to see this lovely sight of Orion rising behind the trees. The image was captured between cars rushing past on the coast road and using my new mirrorless DSLR on its first real outing. Part of the reason for purchasing it was to have a full frame sensor for this type of astrophotography. It was taken using a tripod and inspired by Mike Shaw's talk.

Camera Nikon Z6 Mk 2 , lens 24-70mm, focal length 24mm , ISO 2200, aperture 4.0 , shutter 15 seconds.

Bill Bonar

M42 mosaic

Once upon a time, there was a tired, middle aged engineer. On his 50th birthday, July 2021, he bought a new Celestron Nexstar 127SLT MAK goto scope to restart his interest in astronomy, after decades working in the ultra high vacuum and plasma physics fields with little free time. His first clear views of Jupiter and it's cloud bands and Saturn, it's rings and the Cassini division made him realise that looking was just not enough, he had to capture these views for future reference and to share with friends and family. He continued to invest in his equipment, adding additional scopes, mounts, filters and cameras he decided that Planetary viewing was not enough to widened his personal field of view to the wider universe, and started his journey to capture to distant deep sky objects, joining other like minded individuals to discuss and learn techniques, to be inspired by the efforts of others to continually improve the art that is astrophotography!





Pat Devine

Horsehead nebula

I remember joining the Junior Astronomical Society in the early 70's and getting a copy of the Norton's star atlas for my Christmas. It was great being able to identify constellations that I could see from our garden in Cumbernauld. The constellation of Orion was always a great spectacle. I remember seeing black and white images of the horsehead nebula at the time in books in the library. When I look at what I have captured with my home set up and compare it to images from the 70s it shows just how far the technology has progressed.

This image was taken from my garden in Craigleith/Ravelston, Edinburgh. It has a total exposure time of 60 minutes using my Celestron RASA Astrograph and an IDAS NBX narrowband filter on November 20th. Being in town there is so much light pollution a good narrowband filter is essential.

Ian Smith

Lobster Claw or Sharpless 157

This two-panel mosaic image consists of several components: the claw itself; nebula Sharpless 157a middle left; and the open star cluster NGC 7510, top right. The base of the claw consists mainly of Hydrogen II emissions and the pincers mainly of Oxygen III.

My image was obtained with a Skywatcher 190MN telescope, using a triband filter and a ZWO ASI294MC Pro camera, cooled to -20C, with a total of one hour and 50 minutes of integration.

The top panel consists of 10 x 5 minute exposures, the bottom panel of 12 x 5 minute exposures. These were stacked and merged by Astro Pixel Processor software. The Hubble-like palette was attained using Pixinsight software .



Bill Bonar

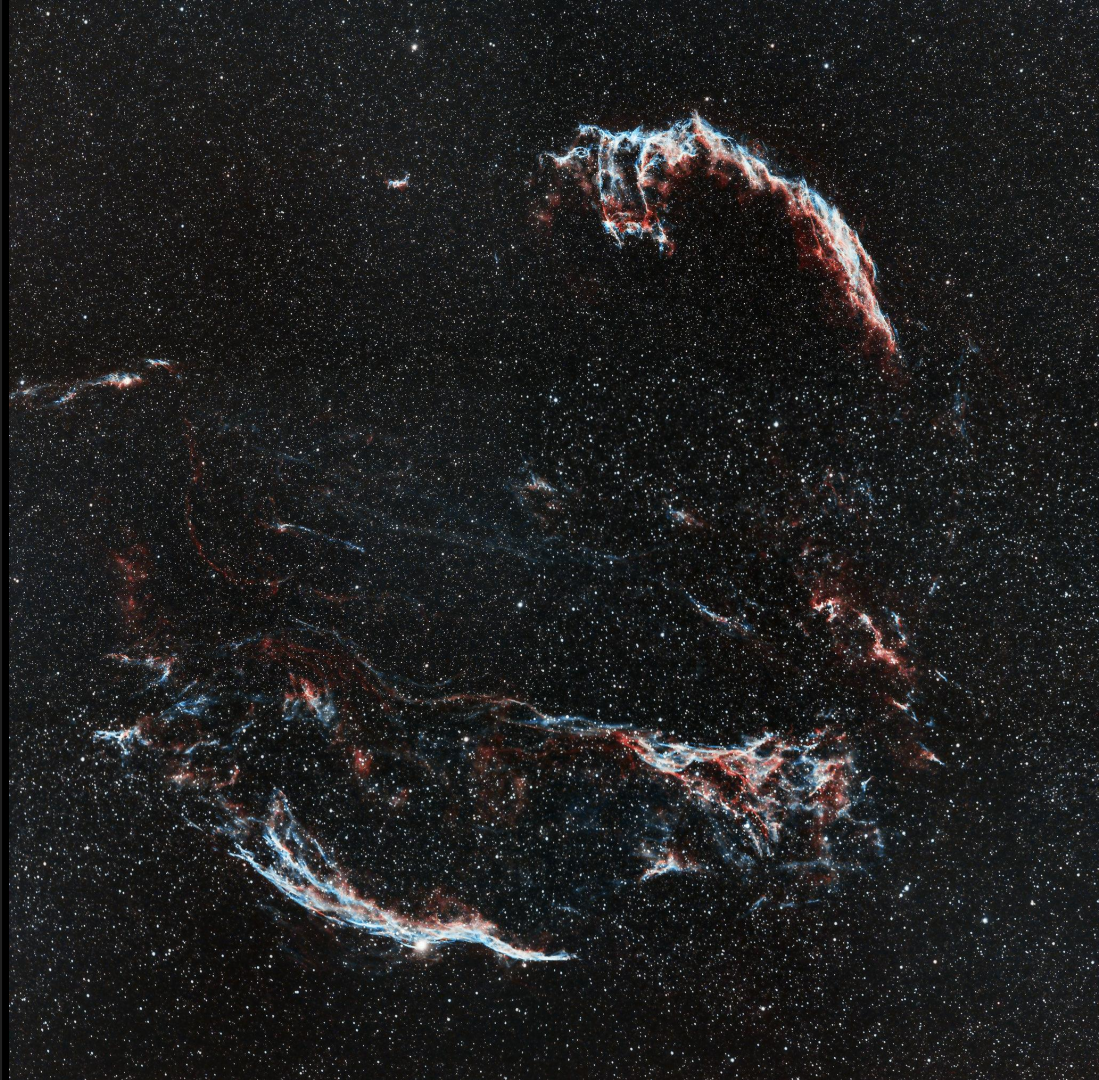
Moon 08/12/2021



Pat Devine

The Veil region

When I first imaged parts of this region last year I was amazed at the detail and colours that appeared on the image. Each of the individual components, in themselves, were fascinating. However, I wanted to see if I could capture the whole of the veil region. I had not attempted many mosaics and on checking the size of the region I would need 6 individual panels. With our weather, that was going to be a challenge. Living in town I do not leave my scope out overnight, so needed to make sure I could complete the imaging at a reasonable time. Late November the weather forecast seemed to show that there would be 2 relatively clear nights close to one another and decided to give it a go. The total exposure time over all 6 panels was 4.5 hours, split over the 2 nights. The next challenge was integrating the 270 individual files. My slightly underpowered laptop took 36 hours to complete the process and much to my relief I ended up with a file I could process in PIxinsight. That was not the end of it. The resultant image file was 1.2GB which meant that processing, especially noise reduction was painfully slow. However, in the end I was pleased with the result. Far from perfect, but one I am especially happy with. This image was taken from my garden in Craigleith/Ravelston, Edinburgh. It has a total exposure time of 4.5 hrs using my Celestron RASA Astrograph and an IDAS NBX narrowband filter on November 26th/29th. Being in town there is so much light pollution a good narrowband filter is essential.



THE WINNER IS...

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The Hunter Rises

by Fran Goodman