

2002



NEXT MEETING

THURSDAY, 15th March 2018

**THE ASTRONOMICAL SOCIETY OF HARINGEY
VOLUME 46 : ISSUE 05 : March 2018**

www.ashastro.co.uk

SOCIETY NEWS

MEETING VENUE

**Music and Drama Block, Ashmole Academy, Cecil Road,
Southgate, London N14 5RJ.**

The day for meetings is usually the third Thursday of each month. The exceptions are August, when we do not hold a meeting, and this now currently applies to the July and December meetings, though that may alter in the future.

However, in case of changes it is always advisable to double-check the dates below.

Doors open - 7.30pm : Main speaker - 8.00pm : Finish - 10.00pm sharp!

For more on this, and general meeting information, also check the website page:
www.ashastro.co.uk. Last minute changes will be on the Facebook page



OBSERVING EVENINGS

Regarding any changes to Observing Evening meetings, this is a continuing message to let Observing Officers : Jim Webb, Alister Innes or Kyri Voskou know your mobile phone number. Last minute changes can then be notified via text messaging. The Facebook page will also be used, but we realise not all have (or want!) Facebook access, so it will be secondary to texting. And if you do not have a computer or cell phone, you can be phoned on your landline.

2018

March 15th : Mat Irvine : "The View from Serendip" – A celebration on the life and times of our late Patron, Arthur C. Clarke, during his 100th anniversary year

April 19th : TBA

May 17th : TBA

June 21st : Dale Baker : "Ray Harryhausen – part 2 – The Later Years"

July & August no meetings these months

September 20th : TBA

October 18th : including AGM

November 15th : Jerry Stone : "The Build-Up to the Apollo 50th"

December : no meeting this month

COVER

Arthur C. Clarke photographed at the Minehead Space Age Festival in 1992, organised by his brother, ASH founder and President, Fred Clarke.

The models, including the Orion spaceplane (foreground left) from *2001 : A Space Odyssey*, were set up by your Editor.

Photo : Mat Irvine



SOCIETY NEWS

For up-to-date information, we are using that 'necessary evil' - Facebook. Go to : www.facebook.com/groups/ASHastro/

However although originally you could view 'Public' Facebook pages (which ASHastro is), and read posts, without being a member, it now seems you have to be a member of FB to even read them. So, sorry, you'll have to join - *BUT* this does not mean you need to give away information you don't want to give. Although Facebook doesn't go out of its way to tell you, any individual's home page can be blank (as your Editor's is) it does not have to have any information. Even your birth date need not be correct.

However, once a member, if you want to 'interact' - ie post messages – on the ASH Group you will need to ask to join, and you will get 'signed up' by your Chairman or Editor.
The more the merrier!

MEETING ROOM



We currently meet at Ashmole Academy, Cecil Road, Southgate N14 5RJ, on the first floor of the Music and Drama Block. This is the two-storey building, (left) with the entrance marked with the red arrow. We hope the first floor will be suitable for all, as there isn't a convenient lift. If anyone feels they will have difficulty, please let the Chairman know. Contact details on the back page.

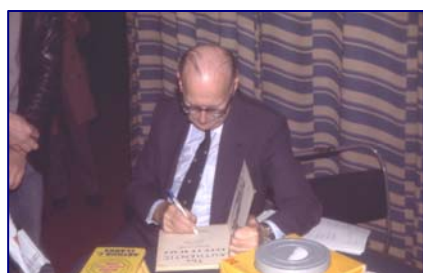
For historical reference the X in the photo was our original meeting room, the original Music Studio. This is now demolished, and the site now has a new building.

MEETING PREVIEW

15th March 2018 :

Mat Irvine : "The View from Serendip"

Our Patron Sir Arthur C. Clarke sadly died in 2008 aged 91. So doing the maths - of which Arthur was extremely fond - we get to 2017 as being his 100th Anniversary, As his birthday was 16th December 1917, we are still in his 100th year, so time for a retrospect. He is probably best known – to the general public at least – as either the 'writer of 2001: A Space Odyssey' or the 'inventor of the communication satellite', or possibly both. However neither are precisely correct. He *co*-wrote 2001 with Stanley Kubrick, though it was based on Arthur's short stories. Secondly he didn't 'invent' the communications satellite, or even 'invent the orbit of the communications satellites' – he purely pointed out where it should be. As he had said, "Newton knew of the orbit"!



But there is of course a lot more to Arthur's life, and for this meeting, your Editor, who knew Arthur - and the rest of the Clarke family, including of course his brother Fred, founder of the ASH - since the early 1970s, will fill in a few gaps!

The photo shows Arthur at an ASH meeting in 1977

MEETING REVIEW

15th February 2018 : Dale Baker :

Ray Harryhausen - The Monster Movie Maker - part 1

For the meeting, Dale Baker talked about one of his favourite subjects from the movies, "*Ray Harryhausen the monster movie maker - and the man who influenced him*"

Dale began his talk with a short animated film made in 1915 by one Willis O'Brien. The film used stop-motion puppets and was called *The Dinosaur and the Missing Link: A Prehistoric Tragedy*.

It was Willis O'Brien, still best known for the first King Kong movie in 1933, who became the biggest influence on the young Ray Harryhausen, and who gave Ray his first job.



Harryhausen (*right*) worked with O'Brien (*left*) on a number of films including *Mighty Joe Young* in 1949, where in fact he handled most of the actual animation, though O'Brien was still in overall charge.



1953 saw Harryhausen's first movie where he was in sole charge. Titled *The Beast from 20,000 Fathoms*, it was based on a short story by long-time friend of Ray's, SF writer Ray Bradbury. The story had been re-named *The Fog Horn*, for serialisation by Bradbury, but returned to its original title for the movie release.

In 1956 Harryhausen worked on *Earth vs The Flying Saucers*, and in 1957, *20 Million Miles to Earth*. In 1958 came his first movie in colour, *The 7th Voyage of Sinbad*, that features the first outing of his famous animated skeleton. Here it is just one, but he returned to the idea with multiple skeleton warriors for *Jason and the Argonauts*.

Dale will be back with Part 2 of his Ray Harryhausen tribute, to conclude the story up to Ray's final movie, *Clash of the Titans*. This is currently scheduled for the June meeting.

Wayne Johnson

By coincidence there is an exhibit on Ray Harryhausen's work at Valence House in Dagenham. This runs from 14th March until 30th June.

See www.valencehousecollections.co.uk
 (At the time of printing, this show is not in the exhibits list. It is assumed it will be at some point?)

A poster for an exhibition at Valence House. The poster features a large, detailed model of Bubo the Owl from the movie Clash of the Titans. The text on the poster includes: "VALENCE HOUSE", "Dinosaurs, Harryhausen and me: How a Dagenham man made history in Hollywood", "Opening postponed until 14 March", "30 June 2018", "Experience the wonder of the iconic Ray Harryhausen models, such as Bubo the Owl from the film Clash of the Titans.", and contact information for Valence House: "Valence House, Becontree Avenue, Dagenham, RM8 3HT. For more information call: 020 8227 2034. www.valencehousecollections.co.uk". There are also social media icons for Facebook and Twitter.

DUTCH GAS EXTRACTION CONTINUES TO CAUSE EARTHQUAKES

For some years the area around Groningen in the Netherlands has suffered earthquakes caused by gas extraction. Calls to end the extraction have now taken on a new urgency thanks to the largest quake the area has suffered in five years. A 3.4 magnitude earthquake directly under the village resulted in nearly 3,000 reports of damaged property along with a large crack in a local church tower.

The removal of gas causes a reduction in pressure in the gas-bearing sandstone some two miles beneath the surface. Neighbouring rocks move as a result and the effect is exacerbated if there are fault lines present.



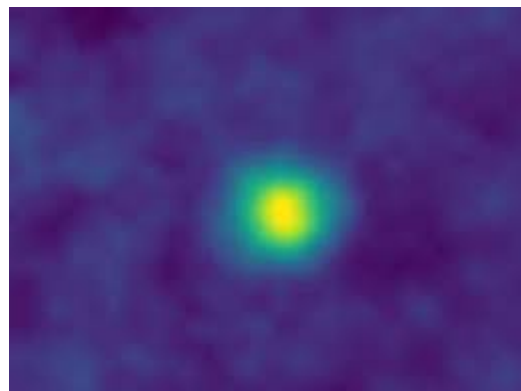
Most of the Netherlands' gas supply comes from the Groningen field and there are long term export contracts in place so it's difficult to see how the government can deal with the situation. The amount of gas extracted has already been reduced several times and the Economic Affairs Minister Eric Wiebes has now said that the volume has to drop even more.

A legal ruling means that when home owners sell their property NAM (the company extracting the gas) has been compensating them for the fall in house prices that this problem has caused. Now NAM has been told they will have to compensate all home owners regardless of whether they sell their property or not.

NEW HORIZONS TAKES FARTHEST EVER SNAPSHOT

The New Horizons probe continues to break records. An image of the Wishing Well star cluster taken in December was from a distance of 3.79 billion miles from Earth – surpassing the 3.75 billion miles from which Voyager took its famous Pale Blue Dot image.

Within two hours New Horizons took another snap – this time of KBO (Kuiper Belt object) 2012 HZ84. (right) This image is now the one taken from the farthest ever distance from Earth.



The spacecraft has since gone into hibernation until it approaches its next target – KBO 2014 MU69, which it will pass at a distance of just 2,175 miles.

The flyby is due on New Year's Eve so the probe will remain inactive until June when it will be woken and prepared for the encounter.

BEWARE LOW-FLYING ELK

A research helicopter has been brought down by the Elk it was trying to capture.

The incident occurred in Wasatch County in Utah when the Elk leaped into the air and struck the rotor of the helicopter, which was at the time some ten feet above the ground.

The crew were trying to net the Elk so they could then sedate it and fit a tracking collar.

When the net missed the pilot steadied his craft ready for his colleague to disembark - at which point the Elk reacted.

Although both crew members survived the Elk died of its injuries soon afterwards.



Helicopters are commonly used to track wildlife in the area but this is the first accident of its kind.

Local wildlife groups have asked for cessation of helicopter use in future.

NEWS EXTRA

THE HEAVENLY PALACE – FACES A MORE DOWN-TO-EARTH FINALE

China's first space station, Tiangong 1, launched in 2011 could very well come back to Earth with a bump within the next few weeks. The Station has been unoccupied since 2013, and unfortunately Chinese engineers have lost control of the station since 2016. The chances of any debris doing damage, or even killing someone is infinitesimal, but the chance is there. Given the engineers have no

control over the craft, it is difficult to say where the station will eventually de-orbit. When the Russian Mir came back in 2001, it was more under control, though some parts did survive and crashed into the South Pacific. Similarly Skylab re-entered in 1979, and some larger parts landed in the Australian outback.



SPACE VIEWS

After some time in the morning skies, Venus has returned to the evening. But currently it is very low down in the west after Sunset, so you need a flat horizon - and clear skies - difficult after all

the snow and rain. But (above) this was taken during a reasonably clear evening, on 25th February. In theory *Mercury should* be in the picture, to the lower right of Venus, but no amount of processing would reveal the innermost planet! It is after all, 10 times fainter...

But a week or so later, the skies cleared and on 7th March - lo and behold - both planets. Mercury is now above Venus.



QUESTION TIME... THE ALPHA-QUIZ...

The answers begin with consecutive letters of the alphabet

Home of a telescope _____

Small piece of matter _____

Dealer on DS9 meets a constituent of hadron _____

Dangerous beach current _____

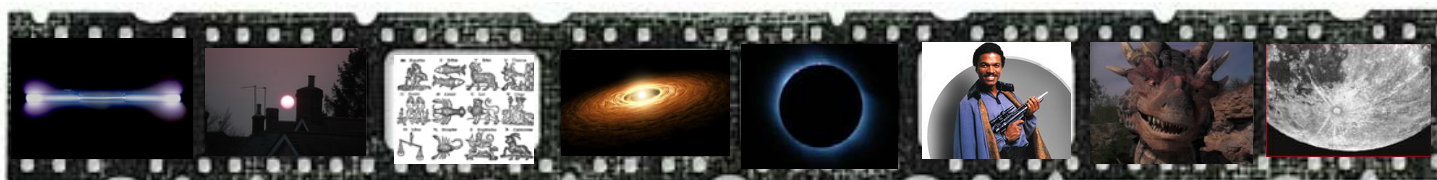
Fishy coating _____

Nikola – now drives a car _____

Latin bear _____

Empty space _____

LAST MONTH ANSWERS



Xenon

Yellow Dwarf

Zodiac

Accretion Disc

Baily's Beads

Calrissian

Draco

Ejecta



We've been sent details of a holiday stay with 'dark skies' and so 'suitable for astronomers' in Scotland. It is located in the village Gatehouse of Fleet.

This is off the A75 between Castle Douglas and Wigtown on the western side of southern Scotland.

Check out the details at www.callylodges.com



CHAIRMAN'S QUARTERS



How weird is the world we live in! Stephen Hawking, when recently asked, “What was there before the Big Bang?” simply replied, “Nothing”. Quite an admission from someone who is involved with cutting edge theorisation at the quantum level. This almost negates ‘String Theory’ and other exotic attempts at trying to understand what lay ‘before’ or even ‘under’ the Big Bang. Maybe “nothing” isn’t so strange, after all. As a crude example, numbers are something that are quantifiable and have ‘relative’ substance, but for a long time their representation began at 1 (whether Greek α or Roman I). It wasn’t until the Arabs came up with the concept of zero (0) that the number system finally had an origin and could subsequently give rise to ‘exotic’ forms like negative numbers and processes like calculus (based on being able to reduce parameters to 0 to obtain a real result).

So maybe nothing is just a starting point, an origin for which we have no definition. Perhaps we don’t even need one, just the knowledge that it exists and that all that we know arises from it! Suffice to say, other strange things have started from “nothing”. Sometimes it’s hypothetical, like dark matter which maybe nothing but appears to have a real effect. But there is always a start point, like numbers previously mentioned. We have positive and negative numbers, direction, charge and even feelings. These are generally qualities as opposed to something tangible. There have, of course, been S.F. stories written about negative (anti-) gravity and other ‘topsy-turvy’ phenomena but when science comes up with its own weirdnesses one can start to marvel about what a wonderful world we live in.

Mass is one of those things that we take for granted as being ‘positive’ – one directional, as time is. (Imagine anti-time – going backwards!). Well, imagine the surprise when scientists at Rochester University, built a device that produced particles with a negative mass. This is where it gets weird and technical. They embedded a single atomic layer of a semiconductor between top and bottom laser reflectors where lasers beams can bounce off within the optical microcavity. When the semiconductor is hit by laser light, excitons are given off. These are electrically neutral quasi-particles that exist in insulators. These excitons interact with photons in the confined laser light to form polaritons - hybrid quasi-particles that are part light and part matter (I said it gets weird!). By the excitons giving up some of their identity to the photons to form polaritons, they end up with objects that had a **negative** mass associated with them!

This is a kind of a mind-bending thing to think about, because if you try to push or pull them, they will go in the opposite direction from what your intuition would tell you. Researchers are intrigued by the idea of objects with negative mass, which exhibit a behaviour that is the reverse of what we normally observe according to Newton’s Second Law of Motion. This states that a force is equal to the mass of an object times its acceleration ($F=ma$), in other words, objects, when pushed, normally move forward. But those with negative mass will accelerate backwards when pushed, and vice versa!

These results suggest pathways for studying interesting regimes in quantum physics giving rise to possible new phases of quantum matter, as well as fresh possibilities for devices using polaritons, For the time being, the Rochester team are still trying to figure out practical applications for their device. Other teams have been working along these lines. A team at the University of Washington have created a fluid with negative mass by cooling rubidium atoms to just above absolute zero thus creating what is known as a Bose-Einstein condensate. From nothing came weird - keep the weirdness coming guys.

See you in March

JIM

THE NIGHT SKY : THE PLANETS

March - April 2018

MERCURY : In the evening skies with Venus for most of March. It is at its highest elevation on the night of the Meeting, 15th, when it is at its greatest elongation east. But it is very faint - around -0.4. The magnitude continues to fall, dropping to +0.9 by 20th when it will disappear into the twilight and is at inferior conjunction on 1st April. However the very new crescent Moon is close to it and Venus on 18th and 19th March.

VENUS : Brilliant in the evening skies at magnitude -3.9, but very low down, so a clear horizon to the south-west is needed. Sets around hour and half after the Sun by the end of March. As above, Mercury is close by until the 20th March. Moon close on 18th and 19th March, and 17th April

EARTH : March 20th Vernal Equinox. March 25th - British Summer Time begins. Clocks go *forward*.

MARS : In the morning skies, rising around 02.30hrs during March, magnitude +0.6. Started the month in Ophiuchus but moved into Sagittarius on the 12th as it approached Saturn. The Red Planet will only reach an elevation of 14 degrees before dawn at the start of the month and just 12 degrees by month's end. Close to and in conjunction with Saturn on 2nd April, but then moves away east. Brightening over April to -0.3. Moon close on 8th April.

JUPITER : Rising very late evening, in Libra, around 23.30hrs, at magnitude -2.2, so stands out against the otherwise faint stars in the constellation. Rising earlier as the month progresses, and by April will be around 22.00hrs, increasing in brightness to -2.4. Moon close on 3rd April.
Make the most of the Gas Giant as the equatorial bands, and sometimes the Great (though currently somewhat reduced) Red Spot and up to four of its Galilean moons are visible in a small telescope. Later in the year, Jupiter will be much lower on the horizon from our latitudes, and much more difficult to see the details.

SATURN : Rising around 05.00hrs in Sagittarius, in the morning skies at +0.5 magnitude. Saturn and Mars are reasonably close for much of March. Moon close on 7th April.

URANUS : In the east mid-evening, in Pisces, west of star Omicron Piscium. Uranus is still around magnitude +5.8, so still *just* on the theoretical edge of naked-eye visibility. About as well-placed for viewing as it gets. A handy pointer will be Venus on 28th March, when it will be just ½ degree - a Moon's width - below.

NEPTUNE : Was in conjunction with the Sun on 4th March, so not visible. Does not reappear until April, and then in the morning skies.

METEORS

Lyrid Meteor Shower peaks over the night of 22nd-23rd April

THE MOON

Another **BLUE MOON** month, as there are two Full Moons - there is, however, no other significance! There is a Lunar occultation of Aldebaran on 22nd March, around 23.40.



New 15th February
New 17th

First 23rd
First 24th

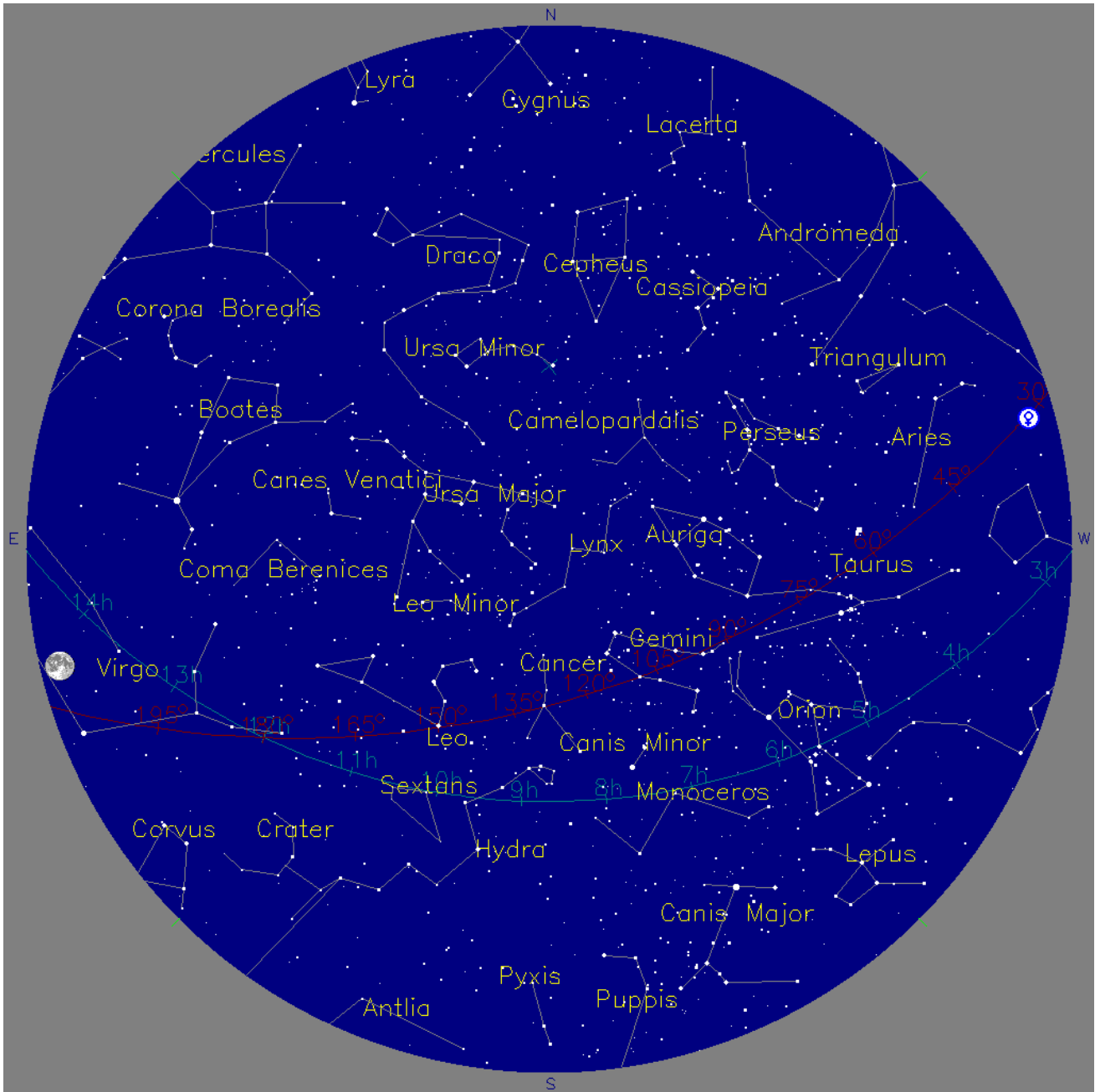
Full 2nd March
Full 31st









Last 9th
Last 8th April

New 17th
New 16th

THE NIGHT SKY : MAP

1st April 2018, 20.00hrs UTC-GMT / 21.00hrs BST



KEY	
 MERCURY	 SATURN
 VENUS	 URANUS
 MARS	 NEPTUNE
 JUPITER	 PLUTO



Astronomical Society of Haringey

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President : Frederick W. Clarke, F.Ph.S.(Eng), F.B.I.S.
Vice President : Walter T. Baker

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