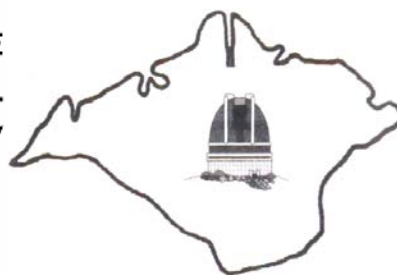


THE NEW ZENITH

THE MONTHLY
MAGAZINE OF THE
VECTIS ASTRONOMICAL
SOCIETY



VOLUME 14 No 10

NOVEMBER 2006

THREE DAY STAR PARTY

Back in the June 2006 *New Zenith* we featured on the front page the outcome of our first attempt at holding a star party lasting more than just one evening. Encouraged by a steady flow of visitors to the Observatory in May, the VAS Executive Committee decided to repeat the event in October but with a greater accent on pre-publicity. The *IW County Press* made a big splash with a page 6 article, a **Quote of the Week** on the

front page and quite an informative piece under **Clubs and Societies** further within. The newly opened radio station *Original106* turned up at the Observatory on the opening day to do a live broadcast about what the star party was all about. Junior Member James Dymock had a day's leave from lessons at Ventnor Middle School to appear on the radio show to tell listeners why astronomy was so important to him. James (right) told *Original's* roving reporter Chris

Carnegy about the life cycle of stars, including that of our own star, the Sun. Chris was fascinated to learn that when the Sun was very much older it would become a Red Giant. He asked James what planet would be first to go. "Mercury," replied James, "followed by Venus." Chris then asked the obvious question that listeners would be desperate to hear answered. "And what would happen when the giant Sun expanded out as far as Earth?" Without any hesitation whatsoever, James replied, "We will all be deep-fried!" All at the Observatory greeted this prediction with a huge burst of

laughter, heard all over the south of England, on air. James hastened to add that the event was not likely to occur for at least two billion years or so into the future, and said that humans should have departed from this planet well in advance. Chris was much relieved and went on to discover that James had met Buzz Aldrin, had shaken his hand, and got his autograph as well. Not a bad achievement for a 10 year old lad. His school street-cred must have been at boiling point when he went back to those old mundane lessons...

With all the publicity, the Isle of Wight public at large became the public 'near to', with quite a large number turning up on the first night at the Observatory. The County Press folks also came along to note the activities, with a promise to feature us in the next issue of the *CP*.

The next day, Friday, gave us clear skies that enabled a good view of the Sun's performance. Several prominences were visible when IW Radio reporter Simon Butler dropped by. He interviewed us about the VAS 30th Anniversary and the Star Party that we had set up. The afternoon news bulletins every hour following had a generous splash about what we were up to and how Mr and Mrs Public could find us. And find us they did. The

Observatory was certainly the 'in place' to be. With a willing team of VAS Members to show and describe what was happening out in space using the Society's telescopes together with an extensive library of images that 'we had prepared earlier', lots of people went away with spinning eyeballs caused by their sheer amazement about what was up in the skies above.

Do it all again? You bet we will.



James telling *Original106* listeners about his interests in astronomy

FROM THE EDITOR

Dear Readers

Well, October was quite an exciting month for VAS. We gained lots of valuable publicity from our three day event which may bring in a surge of membership. Our chairman, Tom Watson, was especially grateful for all the hard work that members put in to making the public so welcome. No names, but those who turned out will know who you are. Those who did not make the effort to support your own society will have had a thousand reasons for staying away. Would it be possible to let us know why? We do try to suit everybody but there are many in the membership who are never seen and this is a shame. Subs have been paid and we would expect Members to come and share what belongs to all in VAS, not just the enthusiastic few. If you know nothing about astronomy (and there are many in this category) please do not be bashful - come on out to the Observatory and let us teach you how to use the equipment that will take you to the stars.

Early in November, just before the 30th Dinner event, I shall be taking Mrs Editor to London to meet HM the Queen. Tell you all about it when we get back! Just to be on the safe side, I shall have to insert shoulder pads in case HM has a loose sword and a spare Knighthood hanging around. One never knows!

Cheers



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**NEXT MONTH'S
LECTURE
In the Parish Hall
Town Lane
Newport**

**Lessons From The
Leonids
by
Neil Bone**

November 24th
at
7:30 pm

November 2006 Subscriptions

Will the following members please note that their subscriptions are now due. As usual, all cheques should be made payable to the Vectis Astronomical Society and sent to my Winford address.

As the costs of postage continue to rise it would be appreciated if Members paid their annual fees due as soon as listed here and so reduce the need for reminder letters.

Thank you

John W Smith, 27 Forest Road, Winford, Sandown, IoW. PO36 0JY

8	Mr R. Flux	£17
15	Mr K. West	£17
18	Mr G. Osborne	£17
67	Mr K. Parker	£17
162	Mr D. Broughton	£13
168	Mr H. Paice	£13
205	Mr D. Methven	£17
266	Mrs B. Allen	£13
350	Mr H. Gawthorp	£13
385	Dr G. Moore	£17
418	Mr B. Tomsett	£13
419	Mr D. Gregory	£17

Soon be Christmas!

Fancy sending greetings to fellow Members?

Email the Editor by second week in November for inclusion in the December New Zenith

No charge

Life, Panspermia & Everything

James Fradgley

The question 'are we alone in the Universe?' cannot be definitely answered. Until modern times the Earth was generally assumed to be at the centre of everything, but with the advent of the telescope and modern technology the principle of mediocrity was adopted making the Earth an average planet in an average solar system. Therefore there would be many Earth-like planets throughout the galaxy. In contrast, recent surveys have discovered many planets around other stars but none of these are Earth-like although the detection methods used so far will tend to favour heavier planets in close orbits.

Life can be defined as that which decreases the local level of entropy (increases order); is able to replicate and is able to evolve. Having evolved to a sufficiently advanced level there is then the need to find life elsewhere. This is the motivation behind the SETI organisation. The first pulsars discovered were interpreted as indicators of life since no mechanism was then known that could produce such a regular signal. In contrast the Tipler Hypothesis or Fermi Paradox is used to suggest that there is not any life elsewhere – otherwise why haven't we seen evidence of it. A civilisation only slightly ahead of ours should be able to build self-replicating machines that could spread throughout the galaxy within a relatively short time.

To estimate the likelihood of life developing, some assumptions have to be made. Most important is to assume that life requires an Earth-like environment – both locally and astronomically. Thus we require a planet with temperatures near the triple point of water and no nearby radiation sources such as supernovae.

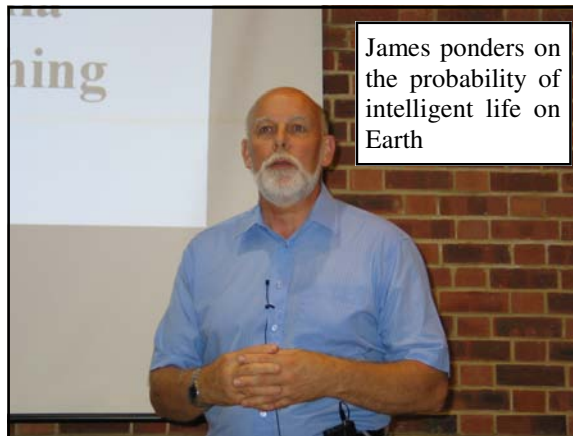
Planets appear to be fairly common but those discovered so far are mainly 'hot Jupiters' – large bodies often in elliptical orbits close to their primaries. This is partly because the techniques used will favour that sort of object rather than small cold planets at greater distances, as with the Earth. Some systems more like our own have been found such as 47 Ursae Majoris and Upsilon Andromedaris.

Our Moon plays an important role in the development of life. The effect of tides provides the opportunity

for life to move from the seas to land but, more importantly, the Moon acts as a brake on the axial tilt preventing major changes in the tilt with consequent violent changes to the seasons and weather systems.

The stability of the Solar System is another major factor allowing life to develop. Most bodies in the Solar System show the results of major bombardment by meteors. The large outer planets prevent this continuing to the present day by sweeping up the debris left over from the formation of the Solar System. Even so an occasional large meteor strike does occur on Earth and is currently thought to be the cause of the major extinctions such as the dinosaurs.

Around 3.6 billion years ago the earliest life appeared on Earth. The complicated processes required to start life from the early conditions on the primordial Earth appear to have happened quite quickly after the end of the meteor bombardment phase 3.9 billion years ago. But did life actually originate on Earth or elsewhere, and then get transported to Earth? The organic compounds that are the progenitors of life are found in giant molecular clouds and on the surfaces of comets. Hence it is possible that life could originate elsewhere but could it survive the journey across space? The problems with crossing space are surviving in a vacuum, UV radiation, solar flares, cosmic rays and low temperatures. However, experiments have shown that spores can survive the radiation levels, especially if protected by a



layer of rock as in a comet, and can remain viable for long periods.

So bacteria can, in principle, cross space but did they? By supposing life originated elsewhere and was transported to Earth (Panspermia) does not answer the question as to how life originates but just moves the problem somewhere else. A warm, relatively benign environment (the early Earth) would appear to be a more likely place for life to originate than the depths of a giant molecular cloud in space. However, the low probability of life originating in a molecular cloud is offset by the much greater volume of space compared to the surface of the Earth.

In conclusion, the biochemistry for the origin of life is tricky anywhere and basic Panspermia is possible. So simple life is probably common but complex life is rare.

Reported by Roger Young

November Skies

John W Smith

The Planets

Mercury In the middle of the month this planet may be seen in the east about 45 minutes before sunrise.

Venus is not visible during this period.

Mars now moves away from the Sun's glare and becoming visible again.

Jupiter is at solar conjunction on the 22nd but will soon be visible again in the morning sky.

Saturn lies in the constellation of Leo and crosses the meridian at 06:30hours.

Uranus and **Neptune** are approaching evening twilight so will soon be lost to view.

Meteor Showers

There are two active showers this month.

*1. The *Taurids* peak twice, on the 3rd and 13th. The Moon intrudes on the first date but becomes less of a problem on the second. Rates are around 10 per hour but moonlight will reduce the number seen.

*2 The 17th/18th sees a favourable maximum of the *Leonid* shower. Rates are variable and the waning Moon will cause few problems to the observer

Moon Phases

New	1st Quarter	Full	Last Quarter
20 th	28 th	5 th	12 th

Deep Sky Objects for small telescopes and binoculars

NGC869 & 884 This is the famous double cluster in Perseus and lies about 7,500 light years away. It contains over 600 stars and is an excellent object for almost any viewing aid, particularly binoculars that have a wide field

of view, so that it is easy to observe both clusters at the same time. It seems strange that Messier did not include this cluster when he compiled his famous catalogue but perhaps he thought that no-one could mistake this twin cluster for a comet!

M34 NGC1039 Another open cluster in Perseus that contains about 75 stars and lies in the plane of the Milky Way, so care should be taken when locating it not to be confused with the many stars in the vicinity.

M45 The Pleiades An open cluster in Taurus and lying only some 400 light years away. It is easily seen with the naked eye with its principal group of bright stars that give it the name of "The Seven Sisters". This cluster is young in astronomical terms and actually contains some 200 stars. Photography will reveal the blue nebulosity around the brightest stars. Visually, the group is best viewed with binoculars or a wide field telescope.

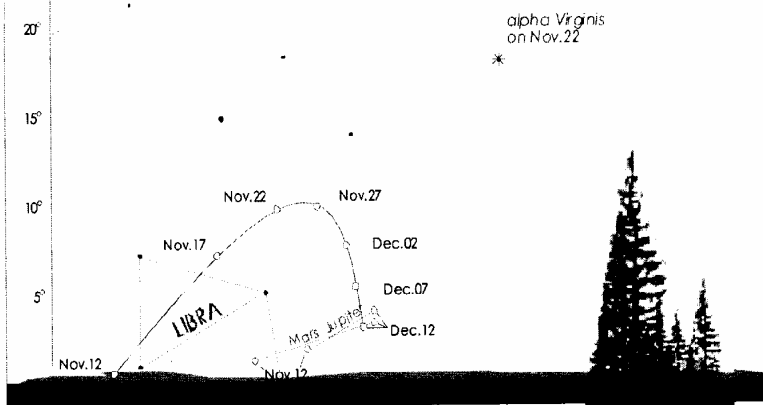
As a variation from my normal theme I'm including what is perhaps the best known variable star, namely, **Algol**. This is an eclipsing binary with a relatively short period of magnitude change of 2.86 days. In this period the magnitude varies between 2.2 to 3.5. Observing this object may wet your appetite to explore the field of variable stars and if you wish for more information on these fascinating objects, the techniques and equipment used, contact our worthy member **Kevin West** (telephone 01983 614591) who is an accomplished authority on the subject.

Coordinates

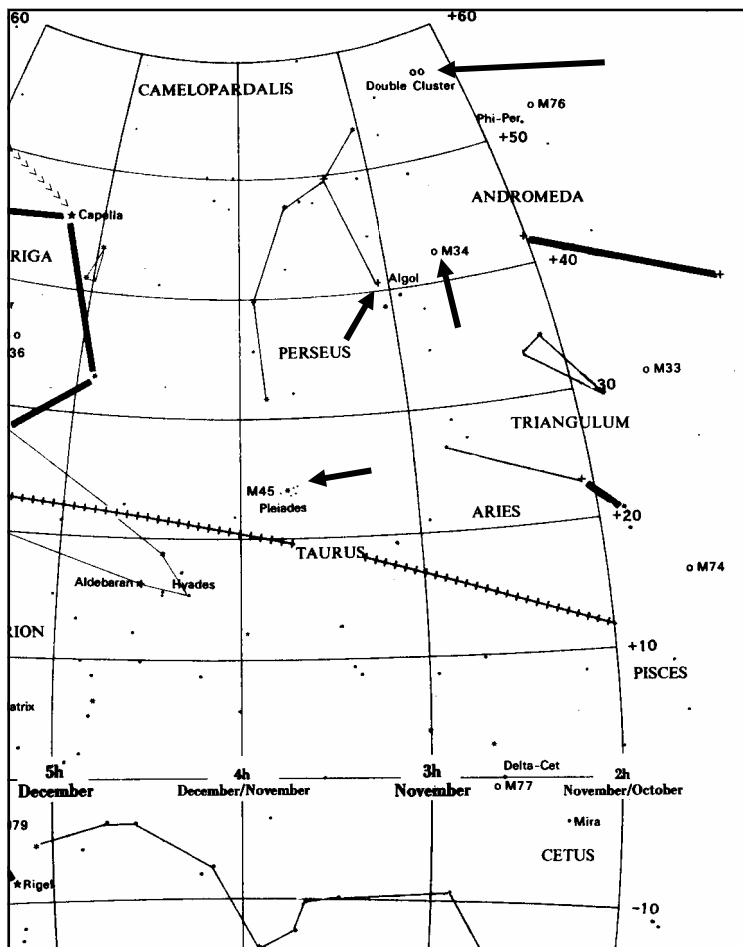
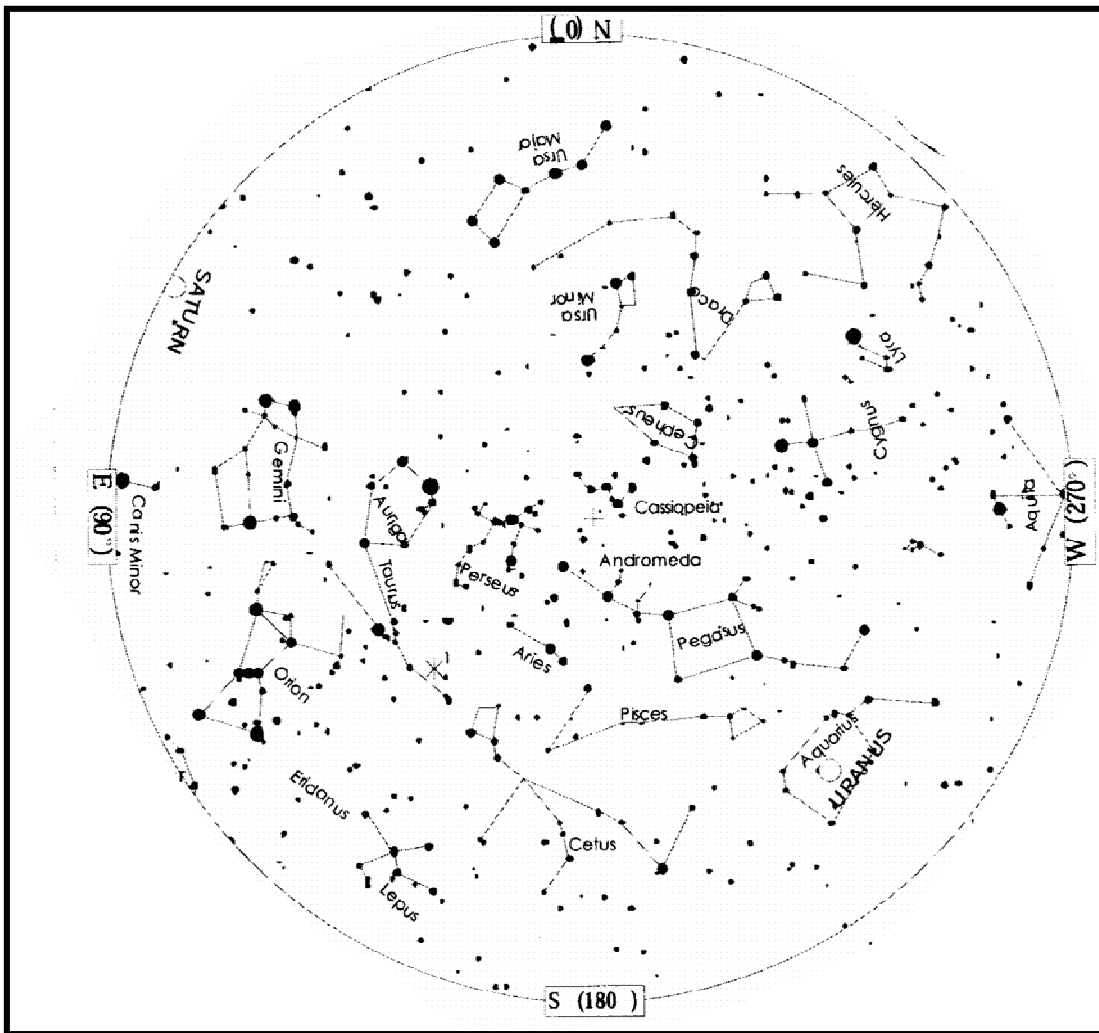
				SIZE
NGC869 & 884	02h 18m	+57deg 04m	10	36 x 36
M34	02h 38m	+42deg 34m	9	30
M45	03h 43m	+23deg 58m	2	100
ALGOL	03h 05m	+40deg 46m	Var.	-

MORNING MERCURY

From mid-November to mid-December, Mercury puts on a fine display in the SE about 40 minutes before sunrise, along with the faint stars of Libra. Above and to the right is Spica which is Virgo's brightest star. Also shown are some of Virgo's fainter stars which lie above Mercury. Faint Mars and brighter Jupiter join the scene but the Moon stays away this time. Positions of the stars are show for November 22 - 27



Nov 01	at	23:00
Nov 15	at	22:00
Nov 30	at	21:00



To all VAS Members

I obtained your website address via the BBC's web page and I'm writing to all of the UK's astronomy clubs and societies to make enquiries about possibly providing holiday and astronomy facilities to enthusiasts. I live in a place called Datca in Turkey (longitude N27.667 latitude E36.750). Throughout Spring and Summer we have completely clear skies and there is little to no light pollution due to our rural location and the fact that the area hasn't been spoilt by mass tourism. Therefore it would be an ideal place for astronomers to have a holiday. Also the area has wonderful clean and unspoilt beaches for relaxing during the day. The Datca peninsula is also well known for its ancient history, scenery and food. I am considering opening a small guest house complete with its own observatory, providing telescopes and other facilities for astronomers so I am keen on hearing any VAS Members as to whether there would be any interest in this. Unfortunately I am unable to provide specific details of costs and equipment available, etc, at the moment because everything is still at the idea stage: if there is a large enough interest, I can start working on details.

Thank you for your time, I look forward to hearing from you.
 Best Regards, Clive Hawkins
startoursinturkey@gmail.com

EVENT OOP NORTH

'Leeds Astromeeet' is justly regarded as one of the premier events in the national amateur astronomy calendar. Following the success of last year's event we have decided to hold the event at Leeds University again, but at a more prestigious hall. An excellent line up of speakers and topics looks set to ensure a very enjoyable day for all. The details are as follows:-

Date: Saturday, 11th November 2006

Time: Doors open 9.00 am

First speaker 10.00 am

Last speaker 5.10 pm

Tickets on door: £10.00

Venue: The Clothworkers Centenary Concert Hall and Foyer, School of Music, Leeds University (a 300 seat auditorium) see venue at

<http://webprod2.leeds.ac.uk/campusmap/detail.asp?ID=13> or a map at <http://www.universallyleeds.co.uk//maps/campusmap.pdf>

Speakers: Tom Boles (BAA) "Type I Supernovae - the new stars of Cosmology"

Professor John Brown (Astronomer Royal for Scotland) "The Uncertain Universe - Magic of the Cosmos"

Dr Allan Chapman (Oxford University)

"Mary Somerville and the Lady Astronomer"

Dr Simon Green (Open University)

"Stardust - a new view of Comets"

Nik Szymanek (BAA) "Photographing the Night Sky"

Trade stalls already confirmed include:

Earth and Sky Books

Aurora Books

Chris Marriott's Skymap

Cape Instruments

Green Witch Telescopes

Opticstar Ltd

British Astronomical Association

Stockport Binocular and Telescope Centre

Astronomica

Further details can be found on the the Leeds Astronomical Society website: <http://www.leedsastronomy.org.uk>

We have published a glossy leaflet advertising the event. This can be downloaded, if required, as a PDF file from http://www.dsellers.demon.co.uk/las/Flyer_preliminary.pdf or from the Nebula newsletter section of the Leeds AS website.

With best wishes,

David Sellers

Leeds Astronomical Society Publicity Officer

RELUCTANT SALE

Due to rather ill health I am forced to dispose of my astronomical equipment as I cannot operate it with ease.

I have a Meade 125 with Autostar and about 9 different eyepieces. Also a tripod and leveller, camera mount and filters. There is a pair of binoculars - size uncertain but around 10X200, thus too heavy to be hand-held but they have their own tripod.

I hope to sell all of the above for around £825 ono. Buyers can see and check out the equipment at 35 Fairmount Drive, Newport at any convenient time. Call on 01983 822544 or 07900 495 866.

Thank you, D Carman

Star Party Feedback

Pat Horne of the IW Friendship Force Club went with her group of about 14 ladies to see what was on offer at the Observatory on Friday 13th October. The ladies were delighted to get a warm welcome from VAS Members on duty that day and had a thrilling tour of the facilities and the building. Pat said that being able to look at the Sun through the solar scopes was amazing, and to see our star busily doing its usual stuff was fantastic.

In summary, Pat's group thought that the combination of modern telescopes and digital cameras using imaging techniques was almost unbelievable in that they could see objects millions of miles away that to them had been always invisible.

Origins of the Zodiac Constellations

Prab. Gondhalekar

In his highly informative article “Constellations: The Myths & Legends” (The New Zenith vol. 14, No. 8), Peter Burgess discusses the mythology of various constellations. Here I would like to describe the possible symbolic context of a particular set of constellations and the connection between the constellations and the seasons or food gathering and agriculture. Food gathering and food production are the primary activities of any family, clan or a nation, as this ensures the survival of the group. Studies of “primitive” (this word is used entirely in a non-judgemental manner and only descriptively to identify societies that do not use the technologies available to us) societies have shown that they will use every means available to secure and ensure their annual supply of food. Over hundred years ago, the Australian anthropologist E.B. Taylor noted, in his study of the Australian aborigine folklore, that the myth “...*Marpean-Kurrk and Neilloan (Arcturus and Lyre) were discoverers of the ant-pupas and the eggs of the loan-birds...*” was an identification of the celestial markers of the seasons when particular foods were available. This symbolic approach to naming stars and constellations was followed by almost all other cultures.

Ancient cultures demarcated the ecliptic with two sets of constellations; the lunar constellations or the lunar houses (in Sumer, ancient South Asia (Vedic Hinduism), China and Arab lands) and the solar constellations (in the late-dynasty Egypt, Mesopotamia and Greece). The twelve signs of the Zodiac, familiar in the Western countries, were adopted from the Greeks. However, the Greeks themselves borrowed these from the Semitic Near Eastern cultures specially Sumer. The earliest record of astronomical observations is the text called *mulAPIN*, this is an encyclopaedia of all Babylonian astronomical knowledge up to *c.*700 BC. The data in the text date some *mulAPIN* observations to early third millennium BC. A number of constellations mentioned in *mulAPIN* can be identified with the Zodiacal ones, in some cases having the same name. Thus the signs of the Zodiac in use today have their origins in the Sumerian pre-history. In this article the possible origins of this ‘Greek’ Zodiac are considered within the frame of Sumero-Babylonian religion and mythology. The discussion is thus biased towards the sky visible in the northern hemisphere.

To reconstruct the number and the names of the zodiacal signs it is instructive to recognise that the names and positions were primarily celestial markers and the symbolic names were not imaginative ways to see the shapes of heroes and animal in the stars. The symbolic names were just aids to memory (as Peter has noted). In his *Exposition du Système du Monde*, Pierre-Simon Laplace (early nineteenth century) observed that “*the names of the zodiacal constellations were not haphazard fancies. They reflect relationships that were the subject of many inquires or attempts at systematic organisation*”. An-

cient societies would have easily established a connection between the appearance of the night sky and the solar year seasons. By noting the maximum and minimum height of the Sun above the horizon and the azimuth of the rising and setting points of the Sun they would have identified four special points on the ecliptic. These are the Vernal (or Spring) Equinox, Summer Solstice, Autumnal Equinox and Winter Solstice. The ancients would have paid great attention to these four points after discovering that the sequence of four seasons was firmly anchored to (and could be predicted from) the annual motion of the Sun among the stars. In *mulAPIN* there is evidence of division of a year into four seasons, however there is reason to believe that this knowledge comes from much earlier texts dating back to *c.*1100 BC or earlier. Observations of the annual movement of the stars would have led to the identification of four groups of stars that coincided with the four special positions of the Sun on the ecliptic. The star groups (constellations) that coincide with the two equinoxes and the two solstices at three epochs from *c.* 6000 BC, to *c.* 1000 BC, are shown in Figure 1, below. These three panels are plotted at an interval of 2000 years for reasons that will be clear in a little while.

The first quartet (Gemini, Virgo, Sagittarius and Pisces) identified the four significant points on the ecliptic from about *c.* 6000 BC to 5000 BC. The names of these con-

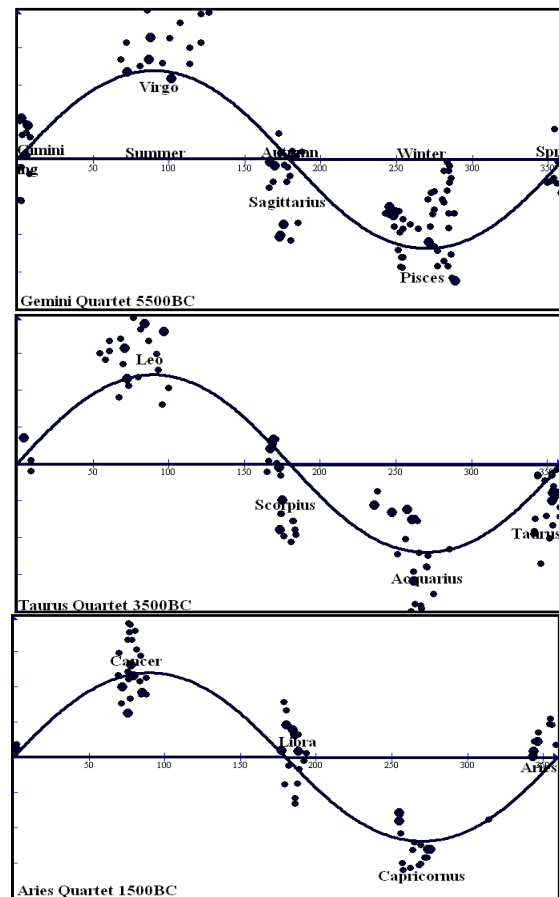


Figure 1 The three quartets of seasonal markers that make the 12 signs of the Zodiac. The continuous line is the Ecliptic. Only stars brighter than 5th Magnitude have been plotted. The slightly bigger points are the five brightest stars of a constellation

stellations can be understood in the context of the religion and mythology of Near and Middle Eastern people and also Indo-Europeans. In the world-view of these cultures the Sun ruled supreme and the children of this supreme god are the Heavenly Twins (Gemini). The twins are not always boys: in biblical mythologies the twins are presented as Adam and Eve. The twin-cult in these cultures has a common theme, that of incest of a brother and sister from whom Mankind began. The twins, identified as the sons of the Sun, also occur in a number of legends of indigenous Americans. What is common to these legends in different cultures is the identification of the Twins with the regeneration of life and it would be reasonable to assume that the constellation of Gemini would have been an early marker of the Vernal Equinox.

The cult of Mother-Goddess was widespread in the Near and Middle East and Asia in the fifth millennium BC. The mother-goddess can be reasonably identified with Virgo. In all known ancient portrayals, Virgo is represented as a woman holding an ear of grain in her hand (hence the name Spica for the most prominent star of this constellation). The mother-goddess holding a spike of corn is an appropriate symbol of summer and harvest i.e. abundance. The autumnal constellation is Sagittarius, a horse-mounted hunter who shoots (and 'kills') the Sun which then starts its descent into the 'watery' underworld. Water as an element of the Lower World is recognised in a number of cultures and fishes (Pisces) would be an appropriate symbol for this world. The semantic sequence in this quartet is birth, maturity, decline and death. This celestial cycle resembles the yearly cycle of the natural world i.e. seasons, and also that of human life.

The next quartet (Taurus, Leo, Scorpius and Aquarius) also matches the semantic sequence of the first quartet but in the context of the changed world-view in the ancient Near East. The symbolism of this quartet can be understood by considering the known motifs of the Sumerian, Babylonian, Assyrian and Egyptian creative works of c. 4000 BC to c. 3000 BC. During this period the supreme deity was male and not female as at earlier times. The primary symbol of fertility was the bull/Taurus and represented Spring. This was also true of the Indo-European cultures further east. Around this time the lion began to represent the symbol of supreme power. As agriculture became more organised people coalesced into communities larger than small villages and there was a need for an authority figure to manage (or govern) land and water resources. Even today the lion remains the most important heraldic sign. Thus Leo is an appropriate sign to represent the Sun's highest point in the sky. The motif of a lion attacking a bull occurs in ancient Eastern art starting with the Elamites (the 4th millennium BC) and followed by the Sumerians and the late Persians. Ethnographers have agreed for sometime that this motif represents the calendrical event of transition from Spring to Summer. In this quartet the role of 'wounding' the year before its descent to winter is assigned to the scorpion (Scorpius). Lastly Aquarius, a

water-symbol, is familiar in Mesopotamian mythology and represents the underworld. This quartet is also mentioned in *mulAPIN*.

By about 1000 BC, the Babylonians had assigned a role and a position to most of the constellations on "*the path of the Sun*" but the full set of twelve was not complete. By this time the world-view in the Near Eastern cultures had again changed. The march of monotheism had begun and is on-going. Aries, the ram, came to represent Spring; this symbolism is present in both Judaic and Christian religions (namely the Passover and Easter). Cancer as the symbol for summer can allegorically mean the reversal of the motion of the Sun as it passes the highest point on the ecliptic. In this quartet Libra represents the balance between day and night and is an apt symbol for the Autumnal Equinox. Capricornus is often depicted as a goat with a fish tail and is the only constellation of Babylonian origin in this quartet. It was a symbol of the god of subterranean fresh-water ocean and is depicted as the carrier of the souls of the dead to the underworld. The Babylonians had introduced this constellation on the ecliptic besides Aquarius. The other three signs of this quartet and their association with the seasons would have been unfamiliar to the Babylonians.

The association of the constellations of these three quartets with the seasons is a consequence of the precession of the equinox. The four cardinal points on the ecliptic would have moved as a rigid system and each point would have passed one zodiacal point per 2150 years (that is why the panels in Figure 1 are 2000 years apart). Cultures that made this association of the constellations and the seasons would have done so empirically and did not know (and did not have to know) about precession. Precession was discovered much later, interestingly, from analysis of data contained in texts like *mulAPIN*. The transition from one quartet to the next would have taken several centuries as the misalignment between the seasons and the constellations became more acute and obvious. The symbolism of the constellations cannot provide clues to the geographical area of their origin. But artefacts such as cult statuettes, cuneiform tablets, cylinder seals and boundary stones discovered in Mesopotamia provide convincing evidence of the occurrence of the zodiacal symbols in the Sumero-Babylonian religion and mythology. Greek perception (which we have inherited) of shapes of humans and animals in the groups of stars may have been the result of a long familiarity with the zodiacal signs and the process of evolution of the twelve signs was either forgotten or not even known to the Greeks.

I believe that this similarity between the symbolism of constellations and the cycle of nature and the passage of human life (i.e. birth, maturity, decline and death) and also the ability to predict seasons (essential to sustain life and a society) from the appearance of specific groups of star in the sky may have tempted early (wo)man to look to the sky in an attempt to predict the future. It is possible that early (wo)man was an astronomer before an astrologer.

Prab



PQ*

While most are looking at the Sun through the solar viewing equipment, Bert Paice has discovered a very clear half-Moon up in the daytime sky!

Daytime visitors were surprised to be able to look at the Moon in such bright conditions. Some never realised that the Moon was visible other than at night

Three Day Star Party

So, was the event worth repeating? Our Chairman certainly thinks so. The concept of using the Observatory as a central venue makes sense since no VAS equipment has to be transported across the Island to more remote sites. Secondly, our location is reasonably central for most people to get to, coupled with the increasing knowledge in the public's mind that this strange-looking building contains the means to lift one's imagination out to the stars.

There were several requests for application forms for membership during the event, with more than a couple of newcomers definitely planning to sign on. The promise of new blood in the Society is very welcome.

The weather during the event was admittedly not 100% perfect but there again we never expected it to be. With an event lasting three days, we are more certain of catching at least one good night for viewing, but to get a splendid day for solar viewing was a bonus.

With the experience gained with spreading our publicity widely, we hope that a possible Spring event next year will be even better. So, keep a good lookout in these pages for news of what the Executive Committee is planning before long.



James Dymock advises *Original106* listeners to invest in flame-proof clothing to avoid being deep-fried...

*PQ indicates photo quality colour images if you get NZ by email

INTERESTING FACTS

PART 26

Odd one out of Einstein, Kennedy, Marco Polo and Leonardo Da Vinci? The only one not to have an airport named for him is Einstein.

Website of the Month

http://en.wikipedia.org/wiki/Cosmic_microwave_background_radiation

Try this site for an in-depth discourse of the work leading to the 2006 Nobel Physics Prize described below

NOBEL PRIZE WINNERS

Back in October, it was announced that the Nobel Prize for Physics had been awarded to two American scientists who had transformed the study of the early Universe from a theoretical activity into one that could be directly observed and measured. John Mather and George Smoot will be awarded their joint prize of £750,000 on December 10th this year.

Using data from NASA's Cosmic Background Explorer satellite, the two scientists have been able to study the Universe in its very early stages, some 380,000 years after the Big Bang. By looking at ripples in detected early light they helped to demonstrate how galaxies came together over periods of time.

John Mather works at the NASA Goddard Space Flight Center in Greenbelt, Maryland. George Smoot does his research at the Lawrence Berkeley National Laboratory in Berkeley, California.

NOTICE TO MEMBERS

Since last month's announcement about the new format for New Zenith as an electronic file, quite a few Members have received their favourite magazine via email in living colour. Member Jim Abra was delighted with the result, as he said:

"The Email version of the NZ came out very well though I only printed the coloured first page because I collected a B&W copy of NZ at our last VAS meeting....The photo paper picture quality was excellent, considerably better than the on-screen image!...If future NZs contain really good colour pictures I would recommend that the appropriate page be printed on photo paper. You could add a note (or just a symbol) on that page indicating to recipients that the page is worth copying on photo paper." ('PQ' will be seen, Ed)
If you would like to have your copy by email, let me know at the address below.
Editor

Last Words

**Yesterday is merely history,
Tomorrow is still yet
a mystery.
Today is a gift, so pleasant:
Is that why we call it
'the present'?**

Submissions to the **NEW ZENITH** are very welcome and should be sent to the the following address

The Editor **NEW ZENITH**
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Tele: 01983 407098

E Mail: johnvl@tiscali.co.uk (any attached files in Word Document format, preferably)

FIND VAS ON THE INTERNET

Members should note the Vectis Astronomical Society Website address:

<http://www.vectis-astro.org.uk/>

MATERIAL FOR THE NEXT ISSUE TO BE RECEIVED BY THE 6TH OF THE MONTH

The Vectis Astronomical Society and the Editor of the New Zenith accept no responsibility for advice, information or opinion expressed by contributors