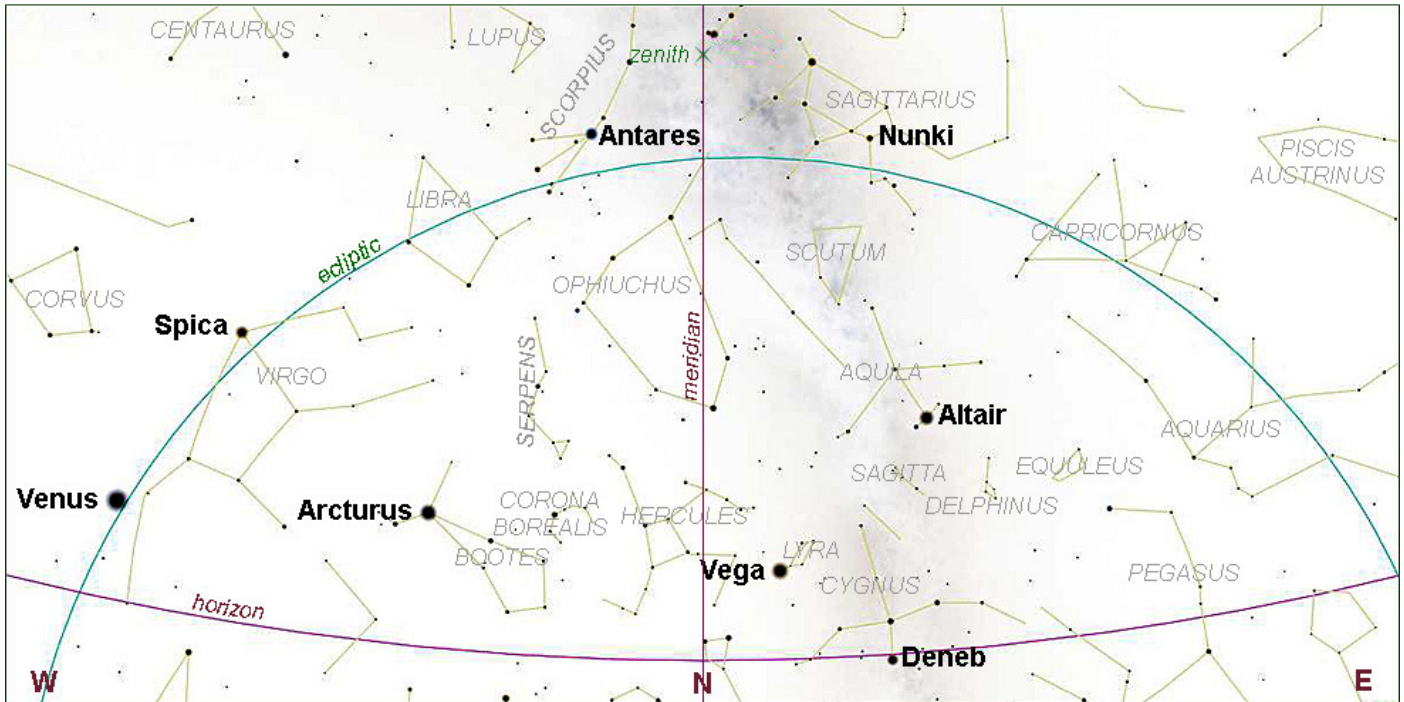
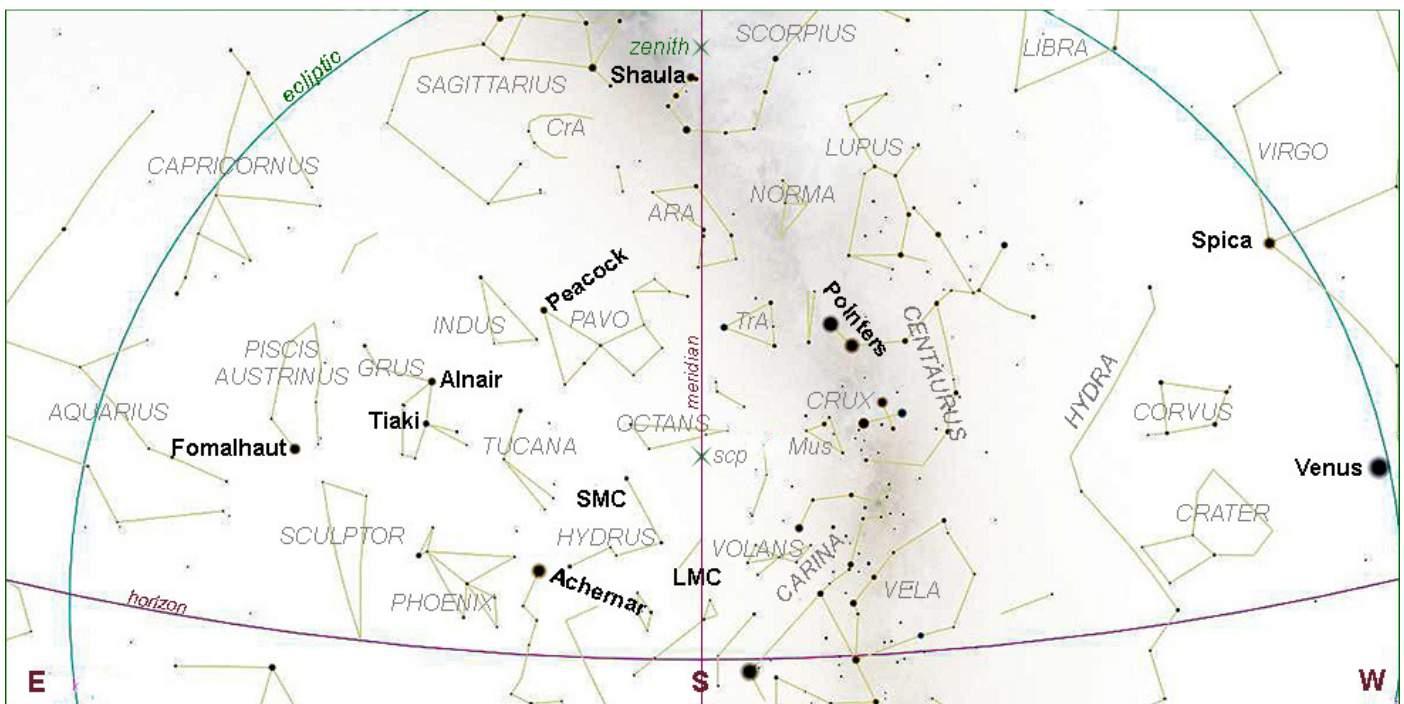


EVENING SKY – AUGUST 9th at 21h00 (NORTH DOWN)



EVENING SKY – AUGUST 9th at 21h00 (SOUTH DOWN)



SUGGESTED EVENING OBSERVATION WINDOW

(Lunar observations notwithstanding)

<u>Date</u>		<u>Moon</u>	<u>Dusk end</u>
August 2 to	Rise	21h58 (88%)	19h13
August 16	Set	21h24 (18%)	19h20

THE SOLAR SYSTEM

AUGUST HIGHLIGHTS based on the 2026 SKY GUIDE

All events are as observed from **HERMANUS**, Western Cape, South Africa

ALMANAC

EPHEMERIS

<i>Day</i>	<i>Time</i>	<i>Item</i>	<i>Day</i>	<i>Time</i>	<i>Item</i>
1		Titan 2.8' from Saturn	2		Mercury at western elongation (19.5°)
3		Callisto 6.8' from Jupiter	5		Mercury at dichotomy
	23h10	Moon and Saturn rise together	8	23h42	Moon northernmost (+28°06')
6	04h21	Last Quarter Moon	10	13h18	Moon at perigee (363 288 km)
		17% Moon near Mars	13	11h56	Moon at descending node
9	05h00	Titan 2.8' from Saturn	14		Mercury at perihelion
12	19h37	New Moon	15		Venus at eastern elongation (45.9°)
		Callisto 6.9' from Jupiter	22	10h20	Moon at apogee (404 644 km)
15	05h00	Mars passes 0.6° NW of M35		10h59	Moon southernmost (−28°07')
17		Titan 2.7' from Saturn	27	20h47	Moon at ascending node
20	04h46	First Quarter Moon		19h04	Mercury at superior conjunction
		Callisto 6.9' from Jupiter			
21	06h52	60% Moon occults Antares			
23	20h19	82% Moon occults ϕ Sgr			
25		Titan 2.7' from Saturn			
28	06h18	Full Moon and partial eclipse *			
		Callisto 7.0' from Jupiter			
31	08h23	90% Moon setting with Saturn			

* See the 2026 *Sky Guide* for more details.

COMETS, ASTEROIDS AND METEORS

The link to the latest Comet, Asteroid and Meteor Section from **Tim Cooper**:

<https://assa.sao.ac.za/wp-content/uploads/sites/23/2026/06/ASSA-CAMNotes-2026-Number-3.pdf>

The latest Deep and Shallow Sky Bulletin by the Director, **Colin Steyn**, is now available to download from the webpage

<https://assa.sao.ac.za/publications/deep-sky/>

SOLAR SYSTEM VISIBILITY

2026 AUGUST 9

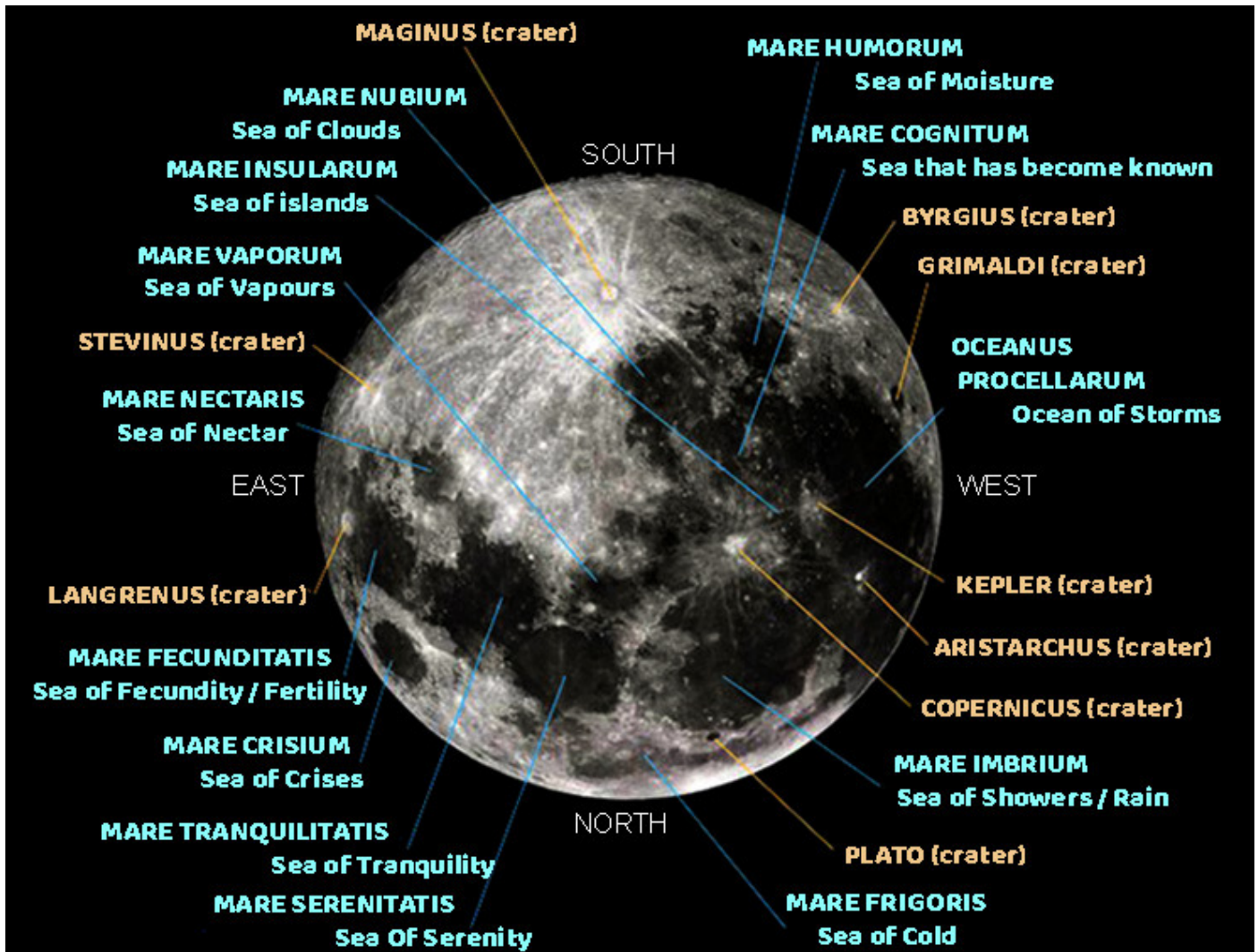
Sun	Cancer	Rise:	07h29	Never look at the sun without SUITABLE EYE PROTECTION!
Length of day	10 hours 39 mins	Transit:	12h49	
		Set:	18h08	
Mercury	Cancer	Rise:	06h33	Low in the east before sunrise
Magnitude	-0.7	Transit:	11h38	
Phase	66%	Set:	16h44	
Diameter	6"			
Venus	Virgo	Rise:	09h32	Evening
Magnitude	-4.3	Transit:	15h40	
Phase	52%	Set:	21h48	
Diameter	23"			
Mars	Taurus	Rise:	09h32	Morning
Magnitude	+1.3	Transit:	15h40	
Phase	93%	Set:	21h48	
Diameter	5"			
Jupiter	Cancer	Rise:	07h08	Too close to the Sun
Magnitude	-1.8	Transit:	12h17	
Diameter	31"	Set:	17h26	
Saturn	Pisces	Rise:	22h34	Morning
Magnitude	+0.6	Transit:	04h30	
Diameter	19"	Set:	10h23	
Uranus	Taurus	Rises:	02h44	Morning
Magnitude	+5.7	Transit:	07h46	
Diameter	4"	Set:	12h47	
Neptune	Pisces	Rise:	21h45	Morning
Magnitude	+7.8	Transit:	03h50	
Diameter	2"	Set:	09h51	
Pluto	Capricornus	Rise:	16h48	All night
Magnitude	+14.4	Transit:	00h03	
		Set:	07h14	

Phases: In a telescope, the inner planets (Mercury, Venus and Mars) appear to us in phases depending on the angle of the Sun's illumination, as does the **Moon**. The observed **angular diameter** is given in arc seconds.

Transit: When an object crosses the **local meridian** it is said to 'transit'. The local meridian is an imaginary line from the horizon directly north passing overhead through *zenith* to the horizon directly south.

Magnitudes: We are accustomed to hearing the brightness of stars described in terms of 'magnitude'. But, for example, the star Sirius, at magnitude -1.4, is considerably brighter than the star Antares (in Scorpius) at +1.05. The scale is 'inverse'; the brighter the object, the lower the value. A 'good' human eye on a clear night can see a star down to a magnitude of about +6.

THE MOON



The Moon's surface features include dark volcanic plains called maria (seas), bright rugged highlands (terrae), impact craters and mountain ranges named using Latin-based planetary nomenclature.

Major Lunar Seas (Maria & Oceanus)

- Mare Tranquillitatis (Sea of Tranquility)
- Mare Imbrium (Sea of Showers)
- Mare Serenitatis (Sea of Serenity)
- Mare Crisium (Sea of Crises)
- Oceanus Procellarum (Ocean of Storms)

Famous Impact Craters

- Tycho (bright ray crater in the south)
- Copernicus (prominent terraced crater)

- Plato (dark-floored northern crater)

- Kepler
- Ptolemaeus

Mountains and Valleys (Montes & Valles)

- Lunar Apennines (Montes Apenninus)
- Montes Carpatius (Carpathian Mountains)
- Vallis Alpes (Alpine Valley)
- Hadley Rille (Rima Hadley)

A partial lunar eclipse will be visible from southern Africa this month

(See the *2026 Sky Guide* for more details)



THE EAGLE NEBULA, M 16

This image was taken by **Pierre de Villiers** with a *Seestar S30 Pro* smart telescope. The images were stacked by the telescope itself (which automatically does darks and flats) from 421 x 10 second images, i.e. over 70 minutes of light frame data.

Derek Duckitt did the post processing of the *Seestar* M16 image using Siril, Graxpert, Topaz Denoise and Photoshop.

THE EAGLE NEBULA Star Queen Nebula, M 16, NGC 6611

<i>Description</i>	Cluster with nebulosity	<i>Visibility</i> 2026 August 9		
<i>Constellation</i>	Serpens	<i>Rises</i>	<i>Transits</i>	<i>Sets</i>
<i>Distance</i>	7 kly, 2.1 kpc	15h10	21h50	04h35
<i>Magnitude</i>	+6.14			
<i>Apparent size</i>	35 x 28 arcmin	<i>Naked Eye</i>	No	
<i>Diameter</i>	58.1 ly, 17.8 pc	<i>Binoculars</i>	Yes, in good visibility	
<i>J2000 Dec/RA</i>	-13°48'22" / 18h18m47s	<i>Telescope</i>	Yes	
<i>Alt/Az (Hermanus)</i>	+66°27'38" / +31°55'25"			

DESCRIPTION

Messier 16 is a conspicuous region of active star formation appearing in the constellation **Serpens Cauda**. This giant cloud of interstellar gas and dust is commonly known as the Eagle Nebula and has already created a cluster of young stars. The nebula is also referred to the Star Queen Nebula and as IC 4703; the cluster is NGC 6611.

DISCOVERY AND OBSERVATION

The cluster was discovered by **Philippe Loys de Cheseaux** in 1745-1746, making no mention of the nebula. **Charles Messier** independently rediscovered the cluster in 1764 and described its stars as "*enmeshed in a faint glow*", suggesting that he discovered the nebula as well.

The Herschels apparently did not perceive the nebula, so their catalogues (and consequently the NGC) only describe the cluster. The nebula was probably first photographed by **E.E. Barnard** in 1895, or by **Isaac Roberts** in 1897. From Roberts' finding, the nebula was added to the second Index Catalogue in 1908 as IC 4703, "*with cluster M 16 involved*".

M 16 is found rather easily, close to Serpens Cauda's borders with Scutum and Sagittarius. Starting from **Altair** (α Aquilae), follow δ and λ Aql to **Gamma Scuti**; M 16 is about $2\frac{1}{2}^\circ$ west of this star. The **Omega Nebula** (M 17) is 2° SW of γ Sct.

With an overall visual magnitude of +6.4, and an apparent diameter of $7'$, the Eagle Nebula's star cluster is best seen with low power telescopes. The brightest star in the cluster has an apparent magnitude of +8.24, easily visible with good binoculars. A 4" 'scope reveals about 20 stars in an uneven background of fainter stars and nebulosity; three nebulous concentrations can be glimpsed under good conditions. Under very good conditions, suggestions of dark obscuring matter can be seen to the north of the cluster.

In an 8" telescope at low power, M 16 is an impressive object. The nebula extends much further out to a diameter of over $30'$. It is filled with dark regions and globules, including a peculiar dark column and a luminous rim around the cluster. The outlines of the nebula are sometimes said to look like a three-leaf clover.

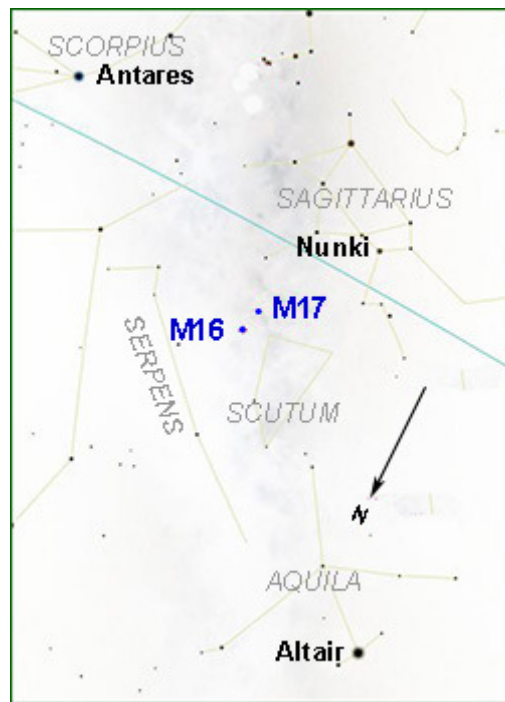
The Eagle nebula is best seen on photographs, but larger apertures and O-III filters may help to trace some detail visually. More dark pillars, also known as "elephant trunks", can be seen in large amateur instruments (12" and larger aperture).

PROPERTIES AND EVOLUTION

The Eagle Nebula lies some 7000 light years away in the Sagittarius-Carina spiral arm of our galaxy - the next arm inward from us. At this distance, the cluster's angular diameter corresponds to a linear size of about 15 light years. The nebula extends much further out to dimensions of about 70×55 light years. M 16 might form one giant complex with M 17, the Omega Nebula, to the south in Sagittarius.

M 16's stellar swarm is only about 5.5 million years old, with its hottest, youngest stars of spectral type O6. Excited by high-energy ultraviolet radiation from these massive stars, this great cloud of interstellar gas glows by fluorescence.

Images made in 1995 by the **Hubble Space Telescope** greatly improved our understanding of the star formation process taking place inside the nebula. One of these images, a famous photograph known as the "**Pillars of Creation**", depicts a large region of star formation whose small dark areas are believed to be protostars. At the end of each pillar, the intense ultraviolet light of newborn stars is vaporizing some of the hydrogen gas, and shaping structures called "**EGGs**" (Evaporating Gaseous Globules).



In 2007, scientists using the **Spitzer Space Telescope** discovered evidence that the Pillars were actually destroyed by a supernova explosion about 6000 years ago. But the light showing their destruction and the new shape of the nebula, will not reach the Earth for another millennium.

Ian Ridpath's
STAR TALES

Serpens

The serpent

Genitive:	Serpentis
Abbreviation:	Ser
Size ranking:	23rd
Origin:	From the Almagest by Ptolemy
Greek name:	Ὀφίς (Ophis)

This constellation is unique. It is divided into two parts – Serpens Caput, the head, and Serpens Cauda, the tail. Nevertheless, astronomers regard it as a single constellation. Serpens represents a huge snake held by the constellation Ophiuchus. Its Greek name was Ὀφίς (Ophis) but, in the *Almagest*, Ptolemy gave it as Ὀφίς Ὀφιοῦχου (Ophis Ophiouchou), i.e. the serpent of the serpent-holder, presumably to prevent confusion with the other celestial serpents Draco, Hydra and Hydrus.

In his left hand Ophiuchus grasps the top half of the snake, while his right hand holds the tail. The mythologists including Aratus and Hyginus described Serpens as being coiled around the waist of Ophiuchus, but most star atlases show the snake simply passing between his legs or across his body (for an illustration of the full tableau, see [Ophiuchus](#)).

In mythology, Ophiuchus was identified as the healer Asclepius (Aesculapius in Latin). His connection with snakes is attributed to the story that he once killed a snake that was miraculously restored to life by a herb placed on it by another snake. Asclepius subsequently used the same technique to revive dead people. Snakes are the symbol of rebirth because they periodically shed their skins, a process known as ecdysis.

There is a species of snake known as the Aesculapian snake (*zamenis longissimus*) native to Greece and Italy which can grow to over 2 metres long, making it one of the largest in Europe. These snakes are not venomous and were used in healing rituals in ancient Greece in temples called Asclepieia. This is presumably the type of snake that Ophiuchus/Asclepius is meant to be holding, albeit exaggerated in size.

Ptolemy, in the *Almagest*, listed the stars of Ophiuchus and Serpens as separate constellations, but mythologists such as Eratosthenes and Hyginus dealt with them together. One of the few celestial map makers to [show Serpens separately](#) was Johann Bayer, who devoted a double-page chart of his *Uranometria* atlas to each of the Ptolemaic constellations; however, the snake also appeared in more shadowy form on [Bayer's chart of Ophiuchus](#). Other major celestial chart makers such as [Hevelius](#), [Flamsteed](#), and [Bode](#) followed the mythologists in treating Ophiuchus and the snake as a composite figure, with the snake partly obscured by the body of Ophiuchus.

A CONSTELLATION DIVIDED

When Eugène Delporte came to define the official constellation boundaries in the late 1920s, he was faced with the problem of how to separate the intertwined figures of Ophiuchus and Serpens. His solution, originally proposed by the American astronomer Benjamin Gould in his [Uranometria Argentina catalogue](#) of 1879, was to chop Serpens into the two halves that we see today, the head on one side of Ophiuchus and the tail on the other. The head is by far the larger half, covering an area over twice that of the tail (428 square degrees against 208). From the western border to the east, the official boundaries of Serpens span nearly 57° of sky, just over half the length of Hydra, the water snake, which is the largest constellation of all.

STARS OF SERPENS, AND A GASEOUS EAGLE

The constellation's brightest star, third-magnitude Alpha Serpentis, is called Unukalhai from the Arabic 'unuq al-hayya meaning 'the serpent's neck', where it is located. The tip of the serpent's tail is marked by Theta Serpentis, called Alya, an Arabic word that refers to a sheep's tail.

The most celebrated object in Serpens is a star cluster called M16, embedded in a gas cloud called the Eagle Nebula, which takes its name from its supposed resemblance to a large bird of prey. The Eagle Nebula was the subject of [a famous photograph](#) by the Hubble Space Telescope showing pillars of gas and forming stars.

CHINESE ASSOCIATIONS

The stars of Serpens were seen by the ancient Chinese not as a snake but as two halves of a wall enclosing the celestial marketplace, [Tianshi](#). Most of Tianshi lay in Ophiuchus and southern [Hercules](#). Theta, Eta and Xi Serpentis formed part of the left (east) wall of Tianshi, while Gamma, Beta, Delta, Alpha and Epsilon Serpentis were part of its right (west) wall.

For all its size, there were relatively few Chinese constellations in present-day Serpens. Omicron and Nu Serpentis were part of Shilou, a six-star loop representing a hall or tower that housed the market office, most of which was in [Ophiuchus](#). Sigma Serpentis and Lambda Ophiuchi formed Liesi, representing an arcade of jewellers' shops. The single star Mu Serpentis was known as Tianru, 'celestial milk', symbolizing rain but also said to represent the mother or wet nurse of the crown prince.

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Please keep in touch...

Have a look at our excellent website, edited by Derek Duckitt—<https://www.hermanusastronomy.co.za/>

Contact ASSA - Get in touch with officers of the Society - we're real people with a passion for astronomy, so [contact us and let's talk!](#)

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