

# הַמִּזְלַת הַקֶּשֶׁת

**Sagittarius** noun **מִזְלַת קֶשֶׁת**

<http://www.morfix.co.il/en/Sagittarius>

الْبُرْجُ الْقَوْسُ

sagittarius {The Archer} {astron.} **برج القوس**

<http://www.arabdict.com/en/english-arabic/Sagittarius>

بُرْجِ قَوْسٍ

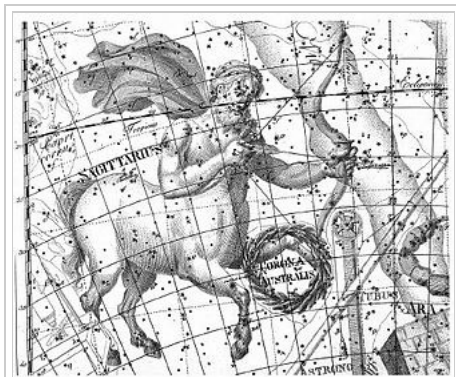
**Sagittarius**

**برج قوس**

<https://translate.google.com/#auto/fa/Sagittarius>

# Sagittarius (astrology)

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A symbolic representation of Sagittarius published in *Uranographia* by Johann Elert Bode. In tropical astrology there is no correspondence between the constellation and the astrological signs.

**Sagittarius** (♐) (Greek: Τοξότης, "Toxotes", Latin: "Sagittarius") is the ninth astrological sign, which is associated with the constellation Sagittarius. Under the tropical zodiac, the sun transits this sign between November 23 and December 21. The symbol of the archer is based on the centaur Chiron, who mentored Achilles in archery.<sup>[1]</sup>

Sagittarius, half human and half-horse, is the centaur of mythology, the learned healer who forms a bridge between human beings and beasts. Also known as the Archer, Sagittarius is represented by the symbol of an arrow.

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Categories: Astrological signs | Centaurs | Astrology stubs

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# Sagittarius (constellation)

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**Sagittarius** is one of the constellations of the zodiac. It is one of the 48 constellations listed by the 2nd-century astronomer Ptolemy and remains one of the 88 modern constellations. Its name is Latin for the archer, and its symbol is ♐ (Unicode U+2650 ♐), a stylized arrow. Sagittarius is commonly represented as a centaur drawing a bow. It lies between Scorpius and Ophiuchus to the west and Capricornus to the east.

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## Visualizations

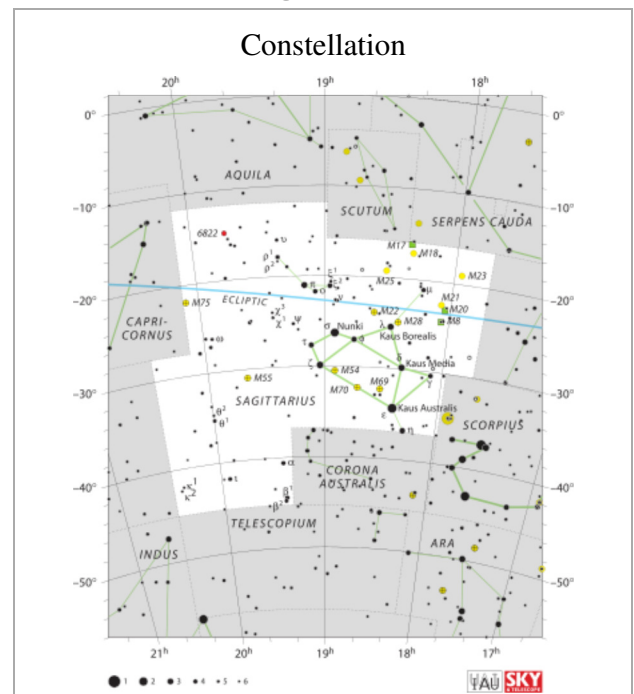
As seen from the northern hemisphere, the constellation's brighter stars form an easily recognizable asterism known as 'the Teapot'. The stars δ Sgr (Kaus Media), ε Sgr (Kaus Australis), ζ Sgr (Ascella), and φ Sgr (Nanto) form the body of the pot; λ Sgr (Kaus Borealis) is the point of the lid; γ<sup>2</sup> Sgr (Alnasl) is the tip of the spout; and σ Sgr (Nunki) and τ Sgr the handle.<sup>[1][2]</sup>

Marking the bottom of the teapot's "handle" (or the shoulder area of the archer, are the bright star (2.59 magnitude) Zeta Sagittarii (ζ Sgr), named Ascella, and the fainter Tau Sagittarii (τ Sgr).

To complete the teapot metaphor, under good conditions, a particularly dense area of the Milky Way can be seen rising

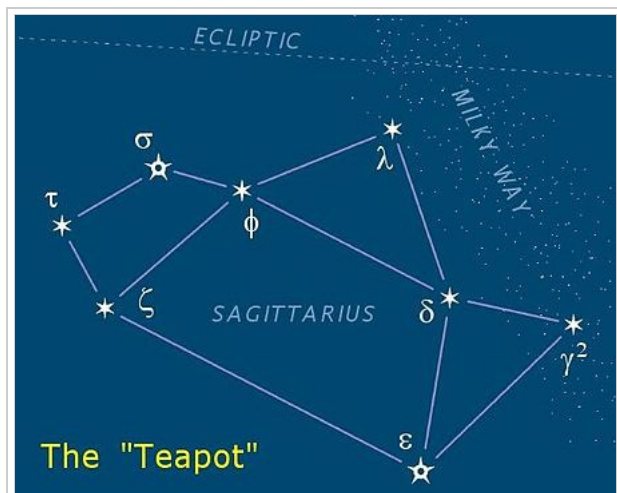
Coordinates: ♁ 19<sup>h</sup> 00<sup>m</sup> 00<sup>s</sup>, −25° 00′ 00″

## Sagittarius



List of stars in Sagittarius

<b>Abbreviation</b>	Sgr
<b>Genitive</b>	Sagittarii
<b>Pronunciation</b>	<span><span>/<span><span>ˌ</span><span>s</span><span>æ</span><span>dʒ</span><span>iː</span><span>ˈ</span><span>t</span><span>æ</span><span>r</span><span>i</span><span>ə</span><span>s</span></span>/</span></span> , genitive <span><span>/<span><span>ˌ</span><span>s</span><span>æ</span><span>dʒ</span><span>iː</span><span>ˈ</span><span>t</span><span>æ</span><span>r</span><span>iː</span><span>aɪ</span></span>/</span></span>
<b>Symbolism</b>	the Archer
<b>Right ascension</b>	19
<b>Declination</b>	−25
<b>Family</b>	Zodiac
<b>Quadrant</b>	SQ4
<b>Area</b>	867 sq. deg. (15th)
<b>Main stars</b>	12, 8
<b>Bayer/Flamsteed stars</b>	68
<b>Stars with planets</b>	32
<b>Stars brighter than 3.00<sup>m</sup></b>	7
<b>Stars within 10.00 pc (32.62 ly)</b>	2



The "Teapot" asterism is in Sagittarius. The Milky Way is the "steam" coming from the spout.

in a north-westerly arc above the spout, like a puff of steam rising from a boiling kettle.<sup>[3]</sup>

The

<b>Brightest star</b>	ε Sgr (Kaus Australis) (1.79 <sup>m</sup> )
<b>Nearest star</b>	Ross 154 (9.69 ly, 2.97 pc)
<b>Messier objects</b>	15
<b>Bordering constellations</b>	Aquila Scutum Serpens Cauda Ophiuchus Scorpius Corona Australis Telescopium Indus (corner) Microscopium Capricornus

Visible at latitudes between +55° and −90°.

Best visible at 21:00 (9 p.m.) during the month of August.

constellation as a whole is often depicted as having the rough appearance of a stick-figure archer drawing its bow, with the fainter stars providing the outline of the horse's body.

Sagittarius famously points its arrow at the heart of Scorpius, represented by the reddish star Antares, as the two

constellations race around the sky. Following the direct line formed by Delta Sagittarii (δ Sgr) and Gamma Sagittarii (γ Sgr) leads nearly directly to Antares. , Fittingly, Gamma Sagittarii is Alnasl, the Arabic word for "arrowhead", and Delta Sagittarii is called Kaus Media, the "center of the bow," from which the arrow protrudes. Kaus Media bisects Lambda Sagittarii (λ Sgr) and Epsilon Sagittarii (ε Sgr), whose names Kaus Borealis and Kaus Australis refer to the northern and southern portions of the bow, respectively.<sup>[4]</sup>

## Notable features

### Stars

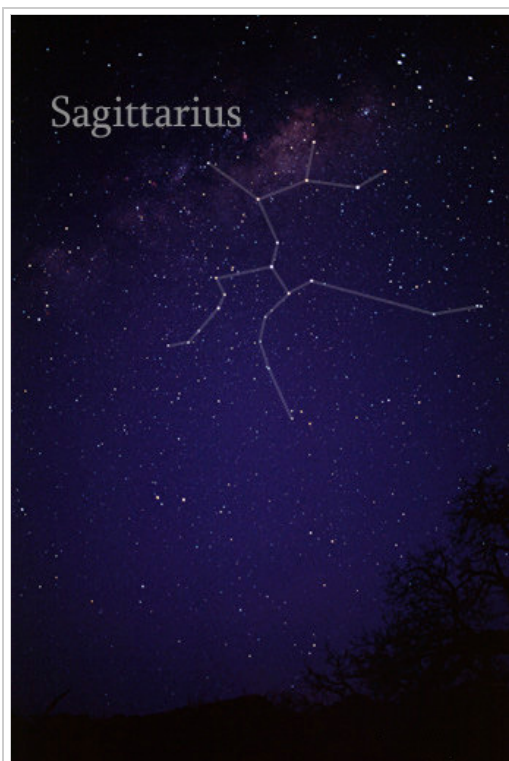
α Sgr (Rukbat, meaning "the archer's knee"<sup>[5]</sup>) despite having the "alpha" appellation, is not the brightest star of the constellation, having a magnitude of only 3.96 (not shown on the main map as it is located below the map's southeastern corner, north is up). Instead, the brightest star is Epsilon Sagittarii (ε Sgr) ("Kaus Australis," or "southern part of the bow"), at magnitude 1.85.<sup>[6]</sup>

Sigma Sagittarii (σ Sgr) ("Nunki") is the constellation's second-brightest star at magnitude 2.08. Nunki is a B2V star approximately 260 light years away.<sup>[5]</sup> "Nunki" is a Babylonian name of uncertain origin, but thought to represent the sacred Babylonian city of Eridu on the Euphrates, which would make Nunki the oldest star name currently in use.<sup>[4]</sup>

Zeta Sagittarii (ζ Sgr) ("Ascella"), with apparent magnitude 2.61 of A2 spectra, is actually a double star whose two components have magnitudes 3.3 and 3.5.<sup>[7]</sup>

Delta Sagittarii (δ Sgr) ("Kaus Maridionalis"), is a K2 spectra star with magnitude 2.71 and only 85 light years from Earth.<sup>[7]</sup>

Eta Sagittarii (η Sgr) is a double star with component magnitudes of 3.18 and 10, while Pi Sagittarii (π Sgr) is



The constellation Sagittarius as it can be seen with the naked eye.

actually a triple system whose components have magnitudes 3.7, 3.8, and 6.0.<sup>[7]</sup>

The Bayer designation Beta Sagittarii (Beta Sgr,  $\beta$  Sagittarii,  $\beta$  Sgr) is shared by two star systems,  $\beta^1$  Sagittarii, with apparent magnitude 3.96, and  $\beta^2$  Sagittarii, magnitude 7.4. The two stars are separated by  $0.36^\circ$  in the sky and are 378 light years from earth. Beta Sagittarii, located at a position associated with the forelegs of the centaur, has the traditional name Arkab, meaning "achilles tendon."

Nova Sagittarii 2015 No. 2 was discovered on March 15, 2015,<sup>[8]</sup> by John Seach of Chatsworth Island, NSW, Australia. It lies near the center of the constellation. It reached a peak magnitude of 4.3 before steadily fading.

### Deep-Space objects

The Milky Way is at its densest near Sagittarius, as this is where the galactic center lies. Consequently, Sagittarius contains many star clusters and

nebulae.

### Nebulae

Sagittarius contains several well-known nebulae, including the Lagoon Nebula (Messier 8), near  $\lambda$  Sagittarii; the Omega Nebula (Messier 17), also known as the Horseshoe Nebula or Swan Nebula, near the border with Scutum; and the Trifid Nebula (Messier 20), a large nebula containing some very young, hot stars.



The Omega Nebula, also known as the Horseshoe or Swan Nebula.

- The Lagoon Nebula (M8) is an emission nebula that is located 5,000 light-years from Earth and measures 140 light-years by 60 light-years ( $1.5^\circ$ ). Though it appears grey in telescopes to the unaided eye, long-exposure photographs reveal its pink hue, common to emission nebulae.<sup>[9]</sup> It is fairly bright, with an integrated magnitude of 3.0.<sup>[10]</sup> The Lagoon Nebula was discovered independently by John Flamsteed in 1680,<sup>[11]</sup> Guillaume Le Gentil in 1747,<sup>[9]</sup> and Charles Messier in 1764.<sup>[11]</sup> The central area of the Lagoon Nebula is also known as the Hourglass Nebula, so named for its distinctive shape. The Hourglass Nebula has its shape because of matter propelled by Herschel 36. The Lagoon Nebula also features three dark nebulae catalogued in Barnard's Catalog.<sup>[9]</sup> The Lagoon Nebula was instrumental in the discovery of Bok globules, as Bart Bok studied prints of the nebula intensively in 1947. Approximately 17,000 Bok globules were discovered in the nebula nine years later as a part of the Palomar Sky Survey; studies later showed that Bok's hypothesis that the globules held protostars was correct.<sup>[12]</sup>
- The Omega Nebula is a fairly bright nebula; it has an integrated magnitude of 6.0 and is 4890 light-years from Earth. It was discovered in 1746 by Philippe Loys de Chésaux; observers since him have differed

greatly in how they view the nebula, hence its myriad of names. Most often viewed as a checkmark, it was seen as a swan by George F. Chambers in 1889, a loon by Roy Bishop, and as a curl of smoke by Camille Flammarion.<sup>[13]</sup>

- The Trifid Nebula (M20, NGC 6514) is an emission nebula in Sagittarius that lies less than two degrees from the Lagoon Nebula. Discovered by French comet-hunter Charles Messier, it is located between 2,000 and 9,000 light-years from Earth and has a diameter of approximately 50 light-years. The outside of the Trifid Nebula is a bluish reflection nebula; the interior is pink with two dark bands that divide it into three areas, sometimes called "lobes". Hydrogen in the nebula is ionized, creating its characteristic color, by a central triple star, which formed in the intersection of the two dark bands.<sup>[9]</sup> M20 is associated with a cluster that has a magnitude of 6.3.<sup>[14]</sup>
- NGC 6559 is a star forming region located at a distance of about 5000 light-years from Earth, in the constellation of Sagittarius, showing both emission (red) and reflection (bluish) regions.

The grouping of the Lagoon Nebula, the Trifid Nebula, and NGC 6559 is often called the *Sagittarius triplet*.

In addition, several other nebulae have been located within Sagittarius and are of interest to astronomers.

- M24, also called the Small Sagittarius Star Cloud, is a star cluster with an approximate magnitude of 3. About 9400 light-years away, it has a diameter of approximately 330 light-years. Embedded in M24 is NGC 6603, a smaller star cluster that is very dense. NGC 6567, a dim planetary nebula, and Barnard 92, a Bok globule, are also nearby.<sup>[15]</sup>
- NGC 6445 is a planetary nebula with an approximate magnitude of 11. A large nebula at over one arcminute in diameter, it appears very close to the globular cluster NGC 6440.<sup>[16]</sup>
- NGC 6638 is a dimmer globular at magnitude 9.2, though it is more distant than M71 at a distance of 26,000 light-years. It is a Shapley class VI cluster; the classification means that it has intermediate concentration at its core. It is approximately a degree away from the brighter globulars M22 and M28; NGC 6638 is southeast and southwest of the clusters respectively.<sup>[17]</sup>



Messier 54 was the first globular cluster found that is outside the Milky Way.<sup>[18]</sup>

### Other deep sky objects

In 1999 a violent outburst at V4641 Sgr was thought to have revealed the location of the closest known black hole to Earth,<sup>[19]</sup> but later investigation increased its estimated distance by a factor of 15.<sup>[20]</sup> The complex radio source Sagittarius A is also here. Astronomers believe that one of its components, known as Sagittarius A\*, is associated with a supermassive black hole at the center of the galaxy, with a mass of 2.6 million solar masses.<sup>[21]</sup> The Sagittarius Dwarf Elliptical Galaxy is located just outside the Milky Way.

Baade's Window is an area with very little obscuring dust that shows objects closer to the Milky Way's center than would normally be visible. NGC 6522, magnitude 8.6, and NGC 6528, magnitude 9.5, are both globular clusters visible through Baade's Window. 20,000 and 24,000 light-years from Earth, with Shapley classes of VI and V respectively,



## Notes

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## External links



- The Deep Photographic Guide to the Constellations: Sagittarius (<http://www.allthesky.com/constellations/sagittarius/>)
- Star Tales – Sagittarius (<http://www.ianridpath.com/startales/sagittarius.htm>)
- Find Sagittarius in the Night Sky (<http://www.aenigmatis.com/astronomy/find/sagittarius.htm>)
- Sagittarius Constellation at Constellation Guide (<http://www.constellation-guide.com/constellation-list/sagittarius-constellation/>)



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