

COVER  
NOT FINAL

# Constellations

*around the world in the night sky*



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# THE TAILED MAN

## A DENE CONSTELLATION FROM ALASKA

In the long winter nights of the Arctic, there is little light pollution to compete with a thousand glittering stars. While we might arrange these stars into several constellations, the Dene (Deh-nay) peoples in the interior of Alaska see them in a different way. To them, one huge, human-like constellation fills the night sky, as though a giant figure from Ancient Time is crouching over the Earth. They call this constellation Yahdii (Yah-dee).



Yahdii is often seen as part animal, part man. He carries a bag and holds a staff or walking stick in his left hand.

## WHO WAS YAHDI?

To the Gwich'in peoples, Yahdii is the spirit of a traveller who went around the world in Ancient Time, when humans and animals spoke one and the same language. Yahdii is said to have transformed dangerous, giant animals into their present forms, making the world a safer place for humans. He shaped the landscape into what we see today, and gave humans technology, tools, clothing and medicine. By the time Yahdii had completed his journey around the world, he was an old man. His spirit was transferred to the twinkling stars, watching over humankind as a guardian and a teacher.

## A BODY MAP

The Dene have names for different star groups within the great Yahdii constellation, each named after the body part it represents. These include his eyes, ears, nose, arms, hands, legs, feet, body, heart and tail. Recognising one body part helps the viewer to identify the other body parts, allowing them to orientate themselves in the vast Arctic landscape.

## FINDING THEIR WAY

For half the year – during autumn and winter – the Arctic nights are much longer than the days. Because of this, the Dene must travel during the hours of darkness. In areas where the landscape is flat, with few landmarks, the position of stars helped travellers find their way in the time before compasses or sat nav.



## THREE MORNING STARS

A bright star in Yahdii's left heel, along with two nearby stars, form a star group called Yeedak Gahajil (Yay-duk Ga-ha-jil), which means 'they went far up'. Each winter morning, from early October to early December, these stars rise from the horizon one at a time, from the pitch dark to the first dawn light. Before they had clocks, the movement of these stars helped the Dene time their morning activities of waking, eating breakfast, and setting out to hunt.





# ODIN'S WAGON

## AN OLD NORSE STORY FROM SCANDINAVIA

The ancient Norse lived in the cold, northern lands that are now Denmark, Norway, Sweden and Iceland. Their mythology included tales of Odin, the chief god and lord of the dead; Thor, the mighty god of thunder and friend to humankind; Loki the mischievous trickster; and many other gods and goddesses. While these stories capture our interest around the world, we actually know very little about Norse constellations. However, one Norse constellation might be familiar to you. To the Norse, it was Karlsvagn, associated with the god Thor and his mighty chariot.

You might recognise it as the Plough.



Ursa Minor includes Polaris, the North Star, which the Norse called 'Leiðarstjarna - the guiding star.'

In the far north, the constellation Ursa Major can be seen in the sky all year long.

### WHOSE WAGON IS IT ANYWAY?

The Plough, part of the constellation Ursa Major, is one of the most recognisable asterisms in the northern hemisphere. Across Europe, it has long been seen as a wagon or chariot. In Norse tradition, it might have been called Karlsvagn ('Man's Wagon') or Odinvagn ('Odin's wagon'). In Germany, it's Der Große Wagen ('The Great Waggon'), and in France, Le Chariot. In England, it's sometimes called Charles's Wain (another name for wagon).

## OTHER CONSTELLATIONS

Historians studying Old Norse texts believe the Norse may have named several constellations. Ursa Minor was known to the Norse as Kvennavagn, (Woman's Waggon,) and may have been associated with the goddess Freyja, who, according to Old Norse Myth, drove a chariot pulled by cats. Other Norse names include Friggjar stjarna ('Frigg's Star') for the planet Venus, in honour of Odin's companion, the goddess Frigg, and Ulf's Keptr (The Wolf's Mouth) for the Hyades star cluster in Taurus. The name 'Wolf's Mouth' likely refers to the Norse myth that at Ragnarök (the end of the world) two wolves will swallow the Sun and the Moon.



## THE WORLD TREE

The ancient Norse believed the universe was made up of nine worlds, all connected by the World Tree, Yggdrasil (IGGdra-sil). This gigantic ash tree was thought to link the realm of the gods to Earth and the underworld, as well as the domains of giants, elves and other beings. Some northern cultures even imagined that Yggdrasil stretched all the way to the North Star. Despite its size, the tree is mortal, constantly in danger and in need of protection. According to Norse myth, if the tree begins to die, it's a sign of the coming of Ragnarök, the end of the world.



## LOST KNOWLEDGE

There are very few surviving written records of Norse constellations, but we know that the night skies must have been important to the Norse people. In their northern lands, the winter nights would have been long and dark and, as Viking seafarers and explorers, they would have used the starry sky to help with navigation.





# Zeus in Disguise

## AN ANCIENT GREEK STORY

In Greek and Roman mythology, the gods and goddesses are well known for getting up to mischief, meddling in the lives of humans. No one enjoyed this more than the king of the gods, Zeus, who often disguised himself as different animals. One such story has been written in the sky, in the form of the constellation Taurus, the bull.

### TRICKED BY A BULL

Many thousands of years ago, there was a young lady called Europa. She was the daughter of the King of Phoenicia, on the Mediterranean coast, and she loved to visit the beach with her friends. Beautiful Europa caught the eye of Zeus, who decided to trick her into coming away with him. Cunningly, he disguised himself as a splendid looking bull, whose hide shone bright as snow, and whose horns looked as though they were dipped in gold. As Europa watched the bull amble down to the shore, she thought she had never seen a beast that looked so dazzling.

### OUT TO SEA

Cautiously, Europa came closer. She couldn't resist reaching out her hand to stroke the bull's silky soft hair. She gathered wildflowers to decorate his horns and was even brave enough to climb onto the bull's wide back. No sooner was Europa sitting on the bull than it began wading into the sea. At first, Europa felt excited, but as the bull swam further into the waves, she looked back at the land in alarm. Where was the bull taking her? How could she get back?

### ZEUS REVEALED

Europa clung onto the bull, unable to escape. Eventually, he reached dry land: the island of Crete. There, Zeus revealed his true form. He was the king of the gods. It is said that despite his trickery, he won over Europa's heart and together they had three sons, including the famous King Minos of Crete.

### WHERE TO SEE IT

To find Taurus in the night sky, look for the easy-to-spot Orion. (on pXX) You'll find Taurus right next to him. Between autumn and spring, you can see Taurus in the northern hemisphere. Between spring and autumn, it appears in the southern hemisphere.

The constellation Taurus is said to have been described as a bull as early as 6,000 years ago.

Once Zeus had carried Europa ashore in Crete, he showered her with presents. One of them was a dog, who we can now see in the sky as the constellation Canis Major.

### Master of disguise

As well as transforming into a bull, Zeus was also said to have disguised himself as a swan, a cuckoo and a snake.



# THE SHEPHERD AND THE SHEEP

## A BABYLONIAN STORY FROM THE MIDDLE EAST

Around 3,000 years ago, the Babylonians lived in the area that is now Iraq, Syria and parts of southern Türkiye. They worshipped many gods and goddesses and believed that these divine beings used the movements and appearance of the Sun, Moon, planets and stars to foretell good and bad events on Earth. The Babylonians identified many constellations, often linked to stories of their gods. One of these tells of Dumuzi, the shepherd god who travelled to the underworld.

### DUMUZI IN THE UNDERWORLD

Dumuzi was a shepherd, but he was also the husband of Inanna, the powerful goddess of love, fertility and war. It is said that Inanna visited the underworld but soon discovered that she could not leave unless someone else took her place. Of course, no one wanted to stay in the land of the dead – not even her own husband – and so demons took Dumuzi there by force. By entering the underworld, Dumuzi died and was made a god of farming and shepherds.

### REMEMBERED IN THE SKY

The constellation of Dumuzi the shepherd was also called the Hired Man, after the hired labourers who would help harvest barley in the spring. Dumuzi can be seen in the constellation Aries the Ram. His wife, Inanna, is close beside him in the form of a fish, known as Anunitu. The fish appears in the sky at the end of the Babylonian year, which was in February, followed by Dumuzi at the beginning of the new year, in March, marking the time of the spring harvests and the birth of new lambs.

### CHANGING SEASONS

In some versions of the story, Dumuzi stayed in the underworld for half the year, then switched with his sister, Geshtinanna, who stayed there for the other half. While he was down there, the Babylonians experienced the hot, dry summer months, when nothing would grow.



*The Babylonians developed the 12 signs of the Zodiac, which included the Hired Man.*

Today, the constellation Pisces is represented as two fish but the Babylonians viewed it as a fish and a swallow joined at the tails.



*Dumuzi, or the Hired Man*

*Anunitu, or the Fish*

### THE SHEPHERD BECOMES A SHEEP

By around two thousand years ago, the Babylonians started to see Dumuzi's constellation differently. It was no longer a shepherd or hired man but a sheep! This change likely occurred because the written word for 'hired man' is similar to 'sheep' in Babylonian. The idea of the sheep took hold, and later became Aries the Ram in Greek astronomy, a name it's still known by today.

### Written in clay

We know lots about Babylonian astronomy because they wrote down their observations on clay tablets using cuneiform, one of the earliest known writing systems. Some of these clay tablets form part of a detailed catalogue that includes information on 71 star names and constellations, thought to be from as early as 1,000 BCE.





# THE EMU IN THE SKY

## AN ABORIGINAL AUSTRALIAN STORY

One of the Aboriginal Australians' best-known constellations is the emu. Different Aboriginal peoples from across Australia and the Torres Strait Islands have their own stories of the great emu in the sky.

### THE SPACE BETWEEN THE STARS

Constellations are often seen as being groups of bright stars, twinkling in the dark night. But for many cultures in the southern hemisphere, where the central belt of our Milky Way galaxy shines brightly across the sky, images are formed from the dark spaces within the Galaxy's milky glow. These are known as dark constellations.

### THE EMU THROUGH THE YEAR

Unlike star constellations, dark constellations change shape throughout the year. One story, told by the Gamilaraay (Gum-ill-uh-rye) people says that the changing emu signals the right time for gathering food, accessing water, and performing important social ceremonies.

The Gamilaraay people call the Emu constellation Gawwargay. Other dark constellations include a crocodile and a kangaroo.



As dusk falls in April and May, a female emu can be seen running across the sky. She is chasing a male emu, signalling that here on Earth the breeding season has begun and the female will begin laying her eggs.

In June and July, we see a male emu sitting on his nest, high in the sky. (Unlike many birds, it is the males who hatch the eggs, not the females!) This is the time when emu eggs can be collected for food.

By August and September the male emu gets up from the nest as his eggs hatch. Now is the time for aboriginal initiation ceremonies, known as Bora, as boys become men. The boys are guided by the men, just as the male emu raises the chicks.

In October and November, the Milky Way sits low on the horizon at dusk. The emu's shape has changed once more. Now he is said to be sitting in a waterhole, signalling to the people that the waterholes are full.

From December to March the emu largely disappears from the night sky. It is said that he left the waterholes as they dried up in the summer heat, but will return to the sky in April, when the cycle begins again.



**South American cousin**  
Aboriginal Australians are not the only people to see a huge bird in the night sky. The Moqoit people of northern Argentina and the Tupi people of the Amazon also recognise the same dark constellation as a rheo, a large, flightless bird native to South America.