

Mythology of Saturn

What we call mythology was a living truth for other peoples in other times. Images of beauty, innocence, courage, and honor handed down from antiquity attract us; images of depravity, cruelty, violence, and evil in the same tales repel. The ancients, just like ourselves, wished to perceive “divine order” in the chaotic world of nature and humanity. It was often the poets who spun the narratives that explained the creation of the Universe and the place of humans in it. These narratives provided answers to the deep questions posed in days long past.

The ancient Roman culture was a powerful civilization; thus, European culture accepted Roman names for the visible planets and many of the stars. As telescopes improved what could be seen in the sky, European astronomers continued to choose names from Roman mythology. Modern astronomy followed the European tradition of selecting Roman names for new celestial objects. Today, names are selected and approved by a group of astronomers (the Working Group for Planetary System Nomenclature of the International Astronomical Union). Two exceptions are: comets, which take the names of their discoverers; and asteroids, which are named by their discoverers with the approval of the Working Group.

Almost all human cultures have their own names for, and stories about, the Sun, the Moon, the planets, and the stars. For example, the ancient Egyptians named the planet we call Saturn after their god of light, Horus, who often appeared in the form of a hawk. Many of the star names that astronomers use today are ancient Arabic names.



Saturn about to devour one of his children, from a woodcut published in Germany in 1599.

TOPICS

Collect sky and star myths of many cultures through libraries, museums, observatories, the Internet, and by speaking with persons from various cultures. Share the star stories and have students discuss the similarities and differences. For example, both ancient Arabs and Native Americans imagined the constellation of the Big Dipper as part of a large bear. Have students consider: if western culture had used names for the stars and planets of, say, Hindu gods or Australian spirits, would astronomical research change? Would we in the 20th century view the Universe differently? It's clear that despite diverse visions and interpretations, the composition of the Saturn system, indeed the Solar System and beyond, remains dependent on physical laws. The real Universe is accessible to scientific observation and exploration, no matter what names we use.



Background for Enrichment 4

Naming Distant Worlds

The ancient religions, which lost their grip on humans even before the Classical Age was over, continued to be useful in providing a reservoir of appellations for the objects seen in the sky. The planets visible to the naked eye received the names of the principal gods of the Roman pantheon. The custom of giving the names of the gods and heroes of antiquity to newly observed celestial objects originated in the 17th century with the discovery of the four large moons of Jupiter, which were named after companions of the god Jupiter. Five moons of Saturn were also discovered in the 17th century, but they didn't receive their mythological names immediately. Christiaan Huygens simply called the satellite he had found *Saturni luna* ("Saturn's moon"), and Jean-Dominique Cassini named the four moons he discovered *Lodicea sidera* ("stars of Louis XIV"). The satellites also received numerical designations, 1 through 5. The naming convention for Saturn's moons had to wait until 1847, when the astronomer Sir John Herschel, the son of William Herschel (discoverer of moons 6 and 7), proposed that the numerical designations be supplanted with the names of Saturn's "brothers and sisters, the Titans and Titanesses."

In Search of the Real Saturn

Saturn (also known as Saturnus) has been represented as a Roman god of harvest and described as a strong old man with a long gray beard who wields a scythe. In reality, there is extensive controversy regarding the origins of Saturn and his Greek counterpart, Kronos (in Latin, Cronus), who has frequently been represented as Father Time. It is important to understand that the gods and mythological creatures of ancient Greece and Rome were not always well-defined personalities. They were composites of multiple myths and local traditions that varied from place to place and changed over time. In addition, the

interpretations of "modern" scholars have been influenced by the surviving works of the ancient poets (most notably Homer and Hesiod) and accuracy has been limited by translations of ancient languages into English. Many of the mythology books available today base their conclusions on translations of stories that, despite their popularity, were never historically correct. Some of the ancient myths were filled with more violent and racy themes than can be found in modern movies and soap operas, encouraging traditional classic scholars to "modify" the stories into more socially acceptable forms.

Current research provides no evidence that the Roman god Saturn was a harvest god, as popularly represented. In fact, few stories about Saturn survive. The scythe carried by Saturn was not necessarily a farm implement. Scythes were also used as weapons, particularly for the beheading of monsters and giants. Kronos may have become identified with Saturn because the Greeks and Romans held similar festivals, usually at harvest time, to honor their respective gods. The Kronia and Saturnalia celebrations were alike in several ways. The modern celebration of Christmas may have originated with the Saturnalia holiday, when evergreen trees were decorated with ornaments and candies, gifts were exchanged among friends and family, and it was customary to forgive debts and make donations to charities.

The Greek god Kronos had a violent family history. Gaia (the Earth) gave birth to Ouranos (the Sky). With Ouranos, Gaia then produced 12 immortal children (the Titans). Kronos was her youngest child and described as "devious and devious, the most terrible of her children." Gaia was not happy with Ouranos, so she convinced Kronos to attack and castrate his own father (who was also his half-brother!) with a stone-bladed sickle she provided. Ouranos could no longer father children and was vanquished.



Kronos became supreme ruler of the world and married his sister Rhea. However, both his mother and father had foretold that Kronos would be dethroned by his own child. To prevent the prophecy from coming true, each time Rhea gave birth to one of his children, Kronos would swallow the baby whole. Grief-stricken and enraged by the loss of her children, Rhea escaped to a cave in Crete, where she gave birth to her son Zeus. Rhea returned to Kronos with a baby-sized stone wrapped in a blanket that Kronos mistook for his son and swallowed.

When Zeus, raised in secret by nymphs, was full-grown, he conspired to drug the food eaten by his father, Kronos. When Kronos became ill, he regurgitated the stone and then all the children he had swallowed (miraculously, as immortals, still alive). With his rescued sisters and brothers, Zeus waged a long and bloody war against his father and all the other Titans. Zeus won the war and imprisoned his father and the Titans in Tartarus (a great fortress of iron with gates of unbreakable stone, located in a dismal pit at the edge of Earth). Zeus and his siblings then ruled the world from Mount Olympus.

So where did the image of Saturn as old Father Time come from? The Greeks and Romans both named the stars and planets after their gods and all sorts of mythological creatures. A bright “star” that appeared to move slowly across the field of other stars was named Kronos by the Greeks. Its progression across the sky became associated with the inevitable passing of time and the seasons. Perhaps people confused and combined Kronos with some lesser known deity. Whatever the reason, the modern image of Saturn as old Father Time is as valid as any ancient myth. It is the very nature of myths and stories to change and become whatever people imagine them to be.

Many Names for Saturn

Here are some names for Saturn in various languages, with pronunciations transliterated into English.

Albanian	<i>Shtundi</i>
Arabic	<i>Zuhal</i> (“one that withdraws”) or <i>ath-Thāqib</i>
Basque	<i>Saturnu</i>
Chinese	<i>T’u-hsing</i> (“earth-star”) (Mandarin)
Cyrillic	<i>Byamba</i> or <i>Sancir</i>
Egyptian	<i>Heru-ka-pet</i> (“star of the West which traverseth heaven”; Horus)
French	<i>Saturne</i>
Gaelic	<i>Satarn</i>
German	<i>Saturn</i>
Greek	<i>Phainōn</i> (“luminous”)
Hebrew	<i>Shabtha’i</i> or <i>Kiwan</i>
Hungarian	<i>Szturnusz</i>
Japanese	<i>Dosei</i> (“earth, soil”)
Korean	<i>T’osong</i> (“earth, soil”)
Latin	<i>Lucidus</i> , <i>Sāturnus</i> , <i>stella solis</i> , or <i>Sāturni</i>
Mongolian	<i>Bimba</i> (Tibetan-derived), or <i>Sanicar</i> (Sanskrit-derived)
Persian	<i>Zahl</i>
Russian	<i>Saturn</i>
Sanskrit	<i>Sani</i> (“slow-moving”), <i>Sauri</i> (“hero” or “son of the Sun”), plus 26 other names!
Spanish	<i>Saturno</i>
Sumerian	<i>Lu-bat-sag-ush</i> (“omen [planet]—steady” or “omen—slow-moving”)
Tibetan	<i>Snenpa</i>
Turkish	<i>Zuhal</i>
Vietnamese	<i>Tho-tinh</i> (“earth, soil”)
Welsh	<i>Sadwrn</i>



Moons of the Planet Saturn

The first of Saturn's moons to be discovered — by Christiaan Huygens in the mid-17th century — was named “Titan” by Sir John Herschel 200 years later. The original numerical designations for the satellites had become confused and cumbersome, and Herschel's plan was to name the moons after the god Saturn's siblings. Titan is Saturn's largest moon, so it seemed appropriate to choose a name that recognizes this characteristic. The four moons found by Jean-Dominique Cassini were named Iapetus, Rhea, Dione, and Tethys. The inner satellites, discovered by Sir John's father, William Herschel, were named Enceladus and Mimas. In the 19th century, two more satellites were found and were named Hyperion and Phoebe. In the 20th century, Epimetheus and Janus were discovered; observers confused them at first because the two moons exchange orbits. Additional satellites were found in the Voyager images of the 1980s: Pan, Atlas, Prometheus, Pandora, Telesto, Calypso, and Helene. To date, Saturn has 18 named satellites, but only Iapetus, Rhea, Tethys, Hyperion, and Phoebe are Titans as portrayed by the ancient poet Hesiod. Thus, John Herschel's original proposal — to name all of Saturn's moons after the Titans — was fulfilled only in part. Individual satellites are listed below, in order of increasing distance from Saturn.

PAN was a satyr (a creature resembling a man with the hind legs and hooves of a goat). He was the Greek god of nature and the forest.

ATLAS (AT-less) was a son of Iapetus. After the defeat of the Titans, Zeus (zoos) ordered Atlas, “at earth's uttermost places, near the sweet-singing Hesperides” to uphold the vault of the sky. The poet Hesiod refers here to the Pillars of Hercules, the westernmost end of the world known to the ancient Greeks. Atlas was so strong that he supported the weight of the Universe on his shoulders.

PROMETHEUS (pro-MEE-thee-uss) was a son of Iapetus, presented by Hesiod as an immortal who sided with the mortals and as a prankster who liked to annoy Zeus, his cousin. The ultimate annoyance was stealing “the far-seen glory of weariless fire” and giving it to mankind. For this, Zeus fastened Prometheus to a mountain in the Caucasus, and he let loose on him “the wing-spread eagle, and it was feeding on Prometheus' imperishable liver, which by night would grow back to size from which the spread-winged bird had eaten in the daytime.”

PANDORA (pan-DOR-uh), whose name means literally “many gifts,” was a work of art who was transformed into a human by the gods. Her curiosity was said to have loosed all manner of ills upon the world when she let evil creatures out of a locked box; however, she is also responsible for “hope” entering the world (“hope” had been the last “creature” in the locked box).

EPIMETHEUS (epp-ee-MEE-thee-uss), brother of Prometheus, was a Titan and one of the three original judges of dead souls. Epimetheus married Pandora.

JANUS (JANE-uss) was an exalted Roman god, a figure of great antiquity and obscure origin. Always represented as having two faces — one looking forwards, the other backwards — Janus presided over the past, present, and future, over gates, doorways, entrances, and beginnings in general, and over war and peace. At every sacrifice, in every prayer, he was the first god invoked, taking precedence before Jupiter. When war was declared, the portals to the sanctuary of Janus on the Roman Forum were opened. The portals were again closed on the declaration of peace. During the entire history of Rome, this happened on only a handful of occasions. As the most ancient of kings, Janus is supposed to have



given the exiled Kronos a warm welcome in Italy, and to have offered Kronos a share of the royal duties.

MIMAS (MY-muss) was a giant and son of the Titans, those older gods preceding the Olympian gods led by Zeus (whom the Romans called Jupiter). During the war in which Zeus and his kind conquered and vanquished the Titans, Mimas was killed by the crippled god Hephaestus (heh-FESS-tus), called Vulcan by the Romans. Hephaestus was a blacksmith and poured molten metal from his forge onto Mimas, who instantly became petrified into a massive rocky hill.

ENCELADUS (en-SELL-uh-duss), like Mimas, was a giant and son of the Titans. His name literally means “battle-cry.” He was human in appearance, except that he had serpents (large snakes) for feet! In the war between the Olympian gods and the older Titans, the goddess Athena struck Enceladus with a large rock, knocking him unconscious. She then buried him alive under so much rock that the island of Sicily was formed in what is now Italy. Enceladus struggled to escape, but remained trapped under all the rocks. It was believed that his violent movements caused earthquakes and the hiss of his breath produced the steam and periodic eruptions of Mt. Etna, a volcano on Sicily.

TETHYS (TEE-thiss) was the wife of the powerful Titan Oceanus (oh-SEE-uh-nus) who ruled the seas before the Olympian god, Poseidon (poe-SIGH-don), called Neptune by the Romans. Tethys is closely associated with the Babylonian goddess Tiamat, and was known as “the lovely Queen of the Sea.” She was the mother of all sea nymphs and of all the rivers on Earth. She was also the mother of Meatus (mee-AH-tus), a minor goddess who represented practical wisdom.

TELESTO (tel-LESS-toe) was a muse whose “specialty” has been forgotten (muses were minor goddesses that represented some human activity, such as music or medicine).

CALYPSO (kuh-LIP-soh) was a nymph whose name means “I hide.” She lived alone on her island until she fell in love with the mortal sailor and explorer Odysseus (called Ulysses by the Romans; his name means “one who suffers”). Calypso helped Odysseus find his way home after his long voyage and many dangerous adventures.

DIONE (die-OH-nee) was an ocean nymph and possibly a daughter of the Titan Atlas. Dione was loved by Zeus before he married the goddess Hera (HERE-uh). Dione became the mother of Zeus’ daughter, the Olympian goddess Aphrodite (aff-roe-DIE-tee), called Venus by the Romans. Some believe she later became a powerful Earth goddess who ruled over both land and sea.

HELENE (huh-LEE-nee) was a powerful Indo-European Earth goddess who, with her twin sister Clytemnestra (kly-tem-NESS-tra), had been hatched from a large egg. Her brothers, the famous Gemini twins Castor and Pollux, had also been hatched from a large egg. The Greeks believed Helene to be the Helen of Troy who was so beautiful that the Trojan War started over her.

RHEA (REE-uh) was the most important Earth goddess of Asia Minor. She was the wife of the Titan Kronos (who the Romans called Saturn!) and the mother of the Olympian gods Zeus (called Jupiter by the Romans), Poseidon (called Neptune by the Romans), Hades (HAY-dees; called Pluto by the Romans), and the goddesses Demeter (deh-MEE-ter), Hera (HERE-uh), and Hestia (HESS-tee-uh). Rhea is closely associated with Cybele (SIB-oh-lee) who was also known as



the great mother goddess Terra (Earth). Rhea was compassionate towards mortals and was often called “the good goddess.”

TITAN (TIE-ten) is not a single deity, but a generic name for the sons of Ouranos (oo-REH-nuss) and Gaia (GAY-uh). Other treatments of the myth of the Titans (in addition to that of Hesiod) have survived. In the Orphic version, the Titans are the ancestors of the human race. The Titans devoured the limbs of Dionysos (die-oh-NYE-suss), the son of Zeus by Persephone (per-SEH-fon-ee). Zeus intended the child to have dominion over the world. Enraged, Zeus struck the Titans with lightning. The fire burned them to ashes, and from the ashes man was formed.

HYPERION (high-PEER-ee-on) was a Titan, one of the older gods that ruled before Zeus and the other gods of Mount Olympus. He was the father of the Sun, the god Helios (HEE-lee-os); the Moon, the goddess Selene (suh-LEE-nee); and the Dawn, the goddess Eos (EE-os). Helios ruled before Apollo, the Olympian god of the Sun, and Selene ruled before Artemis (AR-tuh-muss), the Olympian goddess of the Moon. Hyperion’s name literally means “dweller on high.”

IAPETUS (eye-APP-eh-tuss) was a Titan, one of older gods that ruled before the Olympian gods. He was the father of the Titan Atlas. Iapetus was also the father of the three Titans who judged the souls of the dead in Hades (the underworld). The three judges were Menoetius (men-oh-EE-shuss), Prometheus, who gave fire to human-kind, and Epimetheus, the husband of Pandora. Iapetus fought Zeus in the war between the Titans and the Olympian gods. He was vanquished and imprisoned with the other Titans after they lost that war.

PHOEBE (FEE-bee) is another name for the goddess that the Greeks knew as Artemis and the Romans called Diana. She was the youthful goddess of Earth’s Moon, forests, wild animals, and hunting. Sworn to chastity and independence, she never married and was closely identified with her brother, Apollo (God of the Sun, prophecy, music, and poetry).

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