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Suggest an edit or add missing contentYou have no recently viewed pagesAmerican author (19262017)For the American mathematician, see Louise Hay (mathematician).Louise HayBornHelen Vera Lunney(1926-10-08)October 8, 1926Los Angeles, California, U.S.DiedAugust 30, 2017(2017-08-30) (aged90)San Diego, California, U.S.OccupationAuthor; publisher Hay House; philanthropist Hay Foundation; professional speakerGenreMetaphysics, self-help, motivationalNotable worksYou Can Heal Your Life (1984)Websitewww.louisehay.comPart of a series of articles onNew ThoughtBeliefsAffirmative prayerCreative visualizationDivinityHigher consciousnessGlossary of New Thought termsHistory of New ThoughtHunaLaw of AttractionLife force ("energy")MetaphysicsNew Thought beliefsNew Thought literatureOmnipresencePositive mental attitudeProsperity theologyMovementMajor DenominationsDivine ScienceJewish ScienceReligious ScienceSeicho-no-IeUnityChurchesAffiliated New Thought NetworkAgape International Spiritual CenterCenters for Spiritual LivingChurch of the TruthChurch of the Fuller ConceptInternational New Thought AlliancePsychianaRenaissance Unity Interfaith Spiritual FellowshipUniversal Foundation for Better LivingSchoolsEmerson Theological InstituteUnity Village, MissouriOther groupsAffiliated New Thought NetworkAssociation for Global New ThoughtEschatologyHome of TruthInternational Divine Science AssociationInternational New Thought AllianceLeague for the Larger LifeLiving Enrichment CenterNew Civilization ChurchThe Infinite WayPeopleList of New Thought writersHistoricalWilliam Walker AtkinsonJoseph Sieber BennerNona L. 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Clement StoneMasaharu TaniguchiEckhart TolleIyanla VanzantNeale Donald WalschStuart WildeGary ZukavCategoriesNew ThoughtBeliefsChurchesLiteratureOther groups Religion portalvteLouise Lynn Hay (October 8, 1926 August 30, 2017) was an American motivational author, professional speaker and AIDS advocate. She authored several New Thought self-help books, including the 1984 book You Can Heal Your Life, and founded Hay House publishing.Hay was born Helen Vera Lunney in Los Angeles to Henry John Lunney (19011998) and Veronica Chwala (18941985), Hay recounted her life story in an interview with Mark Oppenheimer of The New York Times in May 2008.[1]In it, Hay stated that she was born in Los Angeles to a poor mother who remarried Louise's violent stepfather, Ernest Carl Wanzenreid (19031992), who physically abused her and her mother. When she was about five, she was raped by a neighbor. At 15, she dropped out of University High School in Los Angeles without a diploma, became pregnant and, on her 16th birthday, gave up her newborn baby girl for adoption.[citation needed]She then moved to Chicago, where she worked in low-paying jobs. In 1950, she moved on again, to New York. At this point she changed her first name, and began a career as a fashion model. She achieved success, working for Bill Blass, Oleg Cassini, and Pauline Trigre. In 1954, she married the English businessman Andrew Hay (19282001); after 14 years of marriage, she felt devastated when he left her for another woman, Sharman Douglas (19281996).[1]Hay said that about this time she found the First Church of Religious Science on 48th Street, which taught her the transformative power of thought. Hay studied the New Thought works of "positive thinking" authors. One was Florence Scovel Shinn who believed that positive thinking could change people's material circumstances, and the other, Religious Science founder Ernest Holmes who taught that positive thinking could heal the body.[2]In the early 1970s Hay became a Religious Science practitioner. In this role she led people in spoken affirmations, which she believed would cure their illnesses, and became popular as a workshop leader. She also studied Transcendental Meditation with Maharishi Mahesh Yogi at Maharishi International University in Fairfield, Iowa.[1]Hay described how in 1977 or 1978 she was diagnosed with "incurable" cervical cancer, and how she came to the conclusion that by holding on to her resentment for her childhood abuse and rape she had contributed to its onset. She reported how she had refused conventional medical treatment, and began a regimen of forgiveness, coupled with therapy, nutrition, reflexology, and occasional colonic enemas. She said in the interview that she rid herself of the cancer by this method, but, while swearing to its truth, admitted that she had outlived every doctor who could confirm her story.[1]In 1976, Hay wrote and self-published her first book, Heal Your Body, which began as a small pamphlet containing a list of different bodily ailments and their "probable" metaphysical causes.[1] This pamphlet was later enlarged and extended into her book You Can Heal Your Life, published in 1984.[3] In February 2008, it was fourth on the New York Times paperback advice bestsellers list.[4]Around the same time she began "Hay Rides" by leading support groups for people living with HIV/AIDS.[1] These grew from a few people in her living room to hundreds of men in a large hall in West Hollywood, California. Her work with AIDS patients drew fame and she was invited to appear on The Oprah Winfrey Show and The Phil Donahue Show in the same week, in March 1988. Following this, You Can Heal Your Life immediately landed on The New York Times bestseller list. More than 50 million copies sold around the world in over 30 languages[1][5] and it also has been made into a movie.[6] You Can Heal Your Life is also included in the book 50 Self-Help Classics[7] for being significant in its field. It is often described as a part of the New Age movement.Hay wrote that it has "... sold more than thirty-five million copies".[8] It was announced in 2011 that You Can Heal your Life had reached 40 million sales. See page 225 of her book (December 2008 printing).[9]Main article: Hay HouseIn 1984, Hay established the Hay House publishing firm. In 1988 Reid Tracy joined the company as an accountant and would eventually become its CEO. The business flourished and attracted various writers. As of 2015[update] Hay House is the primary publisher of books and audio books by over 130 authors, including Deepak Chopra, as well as many books by Wayne Dyer. Hay House also publishes the teachings of "Abraham" as channeled through Esther Hicks.[10]In addition to running her publishing company, Hay ran a charitable organization called the Hay Foundation, which she founded in 1985.[11] Its mission is to build futures and support organizations that enhance the quality of life for people, animals, and the environment. In 2008, a movie about Louise Hay's life was released, titled You Can Heal Your Life. In Hay's own words on the film's official Web site: "This movie is the story of my life, my teachings, and how I've applied the principles of my teachings to my own life." The movie also features notable speakers and authors in the field of personal development including Gregg Braden, Wayne Dyer, Gay Hendricks, Esther and Jerry Hicks, and Doreen Virtue; it was directed by Emmy Award-winning director Michael A. Goorjian.[12] In the same year Louise Hay won a Minerva Award at The Women's Conference.[13]In September 2011, Hay and Cheryl Richardson released their book You Can Create An Exceptional Life.The 2021 documentary film Another Hayride, built entirely from archival footage and narrated by writer/minister David Ault, explores how Louise drew hundreds of gay men with AIDS by teaching them self-love in 1980s Los Angeles.[14][15][16]Hay died at her home in San Diego on August 30, 2017, at the age of 90.[17][18]Hay's two best-known books, Heal Your Body: The Mental Causes for Physical Illness and the Metaphysical Way to Overcome Them and You Can Heal Your Life, directly associate physical problems such as cancer with specific negative emotional patterns and assert that healing the emotional components will also heal the physical conditions. Hay wrote in You Can Heal Your Life that thoughtsnot just sexual behaviorcould help cause AIDS:It is my belief that VENEREAL DISEASE is almost always sexual guilt. It comes from a feeling, often subconscious, that it is not right to express ourselves sexually. A carrier with a venereal disease can have many partners, but only those whose mental and physical immune systems are weak will be susceptible to it.[19]Hay's works include;You Can Heal Your Life. Hay House Inc., 1984. ISBN0-937611-01-8Heal Your Body: The Mental Causes for Physical Illness and the Metaphysical Way to Overcome Them. Hay House Inc. (1984) ISBN0-937611-35-2Mirror Work (1984)The AIDS Book: Creating a Positive Approach. Hay House Inc. (1988) ISBN0-937611-32-8A Garden of Thoughts: My Affirmation Journal. Hay House Inc. (1989) ISBN978-0937611678The Totality of Possibilities (1989)Receiving Prosperity: How to Attract Wealth, Success, and Love into Your Life (1989)The Power of Your Spoken Word (1990)Self-Esteem: Motivational Affirmations for Building Confidence and Recognizing Self-Worth (1990)Love Yourself, Heal Your Life Workbook. Hay House Inc. (1990)The Power Is Within You. Hay House Inc. (1991)Heart Thoughts. Hay House Inc., 1992 ISBN978-1-4019-3720-1Loving Thoughts For Increasing Prosperity. Hay House Inc. (1993)I Can Do It (1993)Meditations to Heal Your Life (1994)[20]101 Power Thoughts (1994)Gratitude: A Way Of Life. Hay House Inc. (1996)Life! Reflections On Your Journey. Hay House Inc. (1996) ISBN978-1561700929 Living Perfect Love: Empowering Rituals For Women. Humantics MultiMedia Publishers (1996) ISBN978-0-9652851-0-0Heal Your Body AZ: The Mental Causes for Physical Illness and the Way to Overcome Them. Hay House Inc. (1998) ISBN978-1561707928101 Ways To Health And Healing. Hay House Inc. (1998) ISBN978-1-56170-496-5Empowering Women: A Guide to Loving Yourself, Breaking Rules, and Bringing Good into Your Life (1996)Colors and Numbers (1998)Everyday Positive Thinking (2004)I Think, I Am!: Teaching Kids the Power of Affirmations (2008)[21]Experience Your Good Now!: Learning to Use (2010)21 Days to Master Affirmations (2011)You Can Create An Exceptional Life (2011)Painting the Future: A Tales of Everday Magic Novel (2012)All is Well: Heal your body. Carlsbad, US: Hay House. 2013. ISBN978-1-4019-3502-3.Loving Yourself to Great Health: Thoughts & Food: the ultimate diet. [S.l.]: Hay House Inc. 2014. ISBN978-1-4019-4284-7.Hay, Louise L.; Kessler, David (2014). You can heal your heart: finding peace after a breakup, divorce, or death. Hay House, Incorporated. ISBN978-1-4019-4387-5. (with David Kessler)Life loves you: 7 spiritual experiments to heal your life. Hay House Inc. 2014. ISBN978-1-4019-4614-2.The Bone Broth Secret: A Culinary Adventure in Health, Beauty, and Longevity (2018) (with Heather Dane)Trust Life: Love Yourself Every Day with Wisdom from Louise Hay (2018)Raymond Charles BarkerEmmet FoxStuart GraysonFlorence Scovel Shinn^ a b c d e f g Mark Oppenheimer (May 4, 2008), "The Queen of the New Age", The New York Times Magazine. Retrieved May 2008.^ Holmes, Ernest (1926). The Science of Mind. New York: Robert M. McBride & Co. ISBN0-87477-865-4. {{cite book}}: ISBN / Date incompatibility (help)^ Hay, Louise L. (1987). Amazon.com. Hay House. ISBN0937611018.^ New York Times Best-Sellers The New York Times, February 23, 2008.^ "Louise Hay Interview" The Daily Telegraph, April 23, 2007.^ "You Can Heal Your Life: The Movie". Retrieved October 17, 2016.^ Review of You Can Heal Your Life Archived December 16, 2008, at the Wayback Machine, 50 Self-Help Classics^ List of best-selling books#Between 30 million and 50 million copies^ Get Busy Thriving website, Self-Empowerment^ "Hay House Author Biography". www.hayhouse.co.uk. Retrieved April 17, 2018.^ "The Hay Foundation Founded In 1986 By Louise Hay". Hay Foundation. Retrieved April 17, 2018.^ "You Can Heal Your Life: The Movie". Retrieved October 17, 2016.^ Louise Hay official site^ "Another Hayride | Video Data Bank". www.vdb.org.^ "Louise Hay short documentary airs on POV". Bay Area Reporter.^ Cordero, Rosy (August 12, 2021). "'POV Shorts': Non-Fiction Short Film Series Sets Season 4 Return To PBS". Deadline Hollywood.^ Genzlinger, Neil (September 1, 2017). "Louise Hay, Widely Read Self-Help Author, Dies at 90". The New York Times. ISSN1553-8095. Archived from the original on September 1, 2017. 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Louise L. Hay, pionera de la sanacin y el bienestar, te brinda la clave holstica para encontrar la causa de tus malestares: una gua que te ayudar a renovar y revolucionar tu mindset, para mejorar tu salud fsica y mental. Encuentra el equilibrio perfecto de cuerpo-mente-espritu que har que forjes tu futuro con las ideas positivas y sanadoras del hoy. Usted puede Sanar su Vida por Louise Hay es una obra revolucionaria que te guiar hacia la transformacin personal y el bienestar. Descubre el poder de la sanacin interior y descubre cmo puedes cambiar tu vida de una manera positiva y significativa.Descarga ahora mismo una copia gratuita en formato PDF de Usted puede Sanar su Vida y sumrgete en sus enseanzas transformadoras! Obtn acceso instantneo a este tesoro literario que te inspirar a abrazar el autocuidado y descubrir tu propio potencial.Con Usted puede Sanar su Vida, Louise Hay te brinda las herramientas necesarias para sanar tu cuerpo, mente y alma. Atrvete a explorar las poderosas afirmaciones y tcnicas de visualizacin que te ayudarn a crear la vida plena y saludable que mereces.Usted puede Sanar su Vida en PDF*Espera unos segundos a que cargue el documento, el tiempo puede variar dependiendo de tu conexin a internet. Si lo prefieres, puedes descargar el archivo haciendo click en el enlace que se encuentra debajo.Cargando archivoDescargar libroResumen Animado Usted puede Sanar su Vida Sign up for our FREE newsletter & receive a free audio download: Love Your Body - by Louise Hay - Listen to 400+ Affirmations to Heal Your Body ,the free encyclopedia that anyone can edit.107,583 active editors 7,025,366 articles in EnglishSir William Gordon-Cumming (20July 1848 20May 1930) was a Scottish landowner, soldier and socialite. He was the central figure in the royal baccarat scandal of 1891. He joined the British Army in 1868 and saw service in South Africa, Egypt and the Sudan; he served with distinction and rose to the rank of lieutenant-colonel. An adventurer, he also hunted in the US and India. A friend of Edward, Prince of Wales, for over 20 years, in 1890 he attended a house party at Tranby Croft, where he took part in a game of baccarat at the behest of the prince. During the course of two nights' play he was accused of cheating, which he denied. After news of the affair leaked out, he sued five members of the party for slander; Edward was called as a witness. The case was a public spectacle in the UK and abroad, but the verdict went against Gordon-Cumming and he was ostracised from polite society. After the court case he married an American heiress, but their relationship was unhappy. (Fullarticle...)Recently featured: Great Wilbraham (causewayed enclosure)Henry de HinuberHurricane Claudette (2003)ArchiveBy emailMore featured articlesAboutPostcard with a Fula woman... that Franois-Edmond Fortier published more than 3,300 postcards of French West Africa (example pictured) between 1901 and 1920?... that a language riot broke out between members of Our Lady of the Rosary in 1917?... that Oleksandr Rodin's opera Kateryna was staged despite barricades, bombings, and an air-raid alarm?... that Paul Among the People treats the Pauline epistles as sources comparable to Homer, Aristophanes and Virgil on Greco-Roman attitudes?... that Gyula Kakas competed at two Olympics in gymnastics, set the Hungarian pole-vault record, and played for a national-champion football club?... that a lyric in Beautiful Chaos was praised for "spreading queer joy"?... that defending champions Bermuda did not compete in the women's football tournament at the 2015 Island Games?... that Vatican Taekwondo has no registered athletes or coaches?... that Iceland's entry for Eurovision in 2025 brought out a line of Ash Wednesday costumes?ArchiveStart a new articleNominate an articleMuhammadu BuhariFormer president of Nigeria Muhammadu Buhari (pictured) dies at the age of 82.Clashes between Druze militias and the Syrian Armed Forces result in hundreds of deaths.The International Criminal Court issues arrest warrants for Taliban leaders Hibatullah Akhundzada and Abdul Hakim Haqqani over their alleged persecution of women in Afghanistan.Flooding in Central Texas, United States, leaves at least 140 people dead.Ongoing: Gaza warRussian invasion of UkrainetimelineSudanese civil wartimelineRecent deaths: Andrea GibsonRaymond GuiotFelix BaumgartnerFauja SinghBradley John MurdochFrank BarrieNominate an articleJuly 20Forensic experts at the site of the Suru bombing1807 French brothers Claude and Nicphore Nipce received a patent for their Pyrolophore, one of the world's first internal combustion engines.1951 Abdullah I of Jordan was assassinated while visiting the Al-Aqsa Mosque in Jerusalem.1976 The Viking 1 lander became the first spacecraft to successfully land on Mars and perform its mission.1997 USSConstitution, one of the United States Navy's original six frigates, sailed for the first time in 116 years after a full restoration.2015 A suicide attack (aftermath pictured) in Suru, Turkey, for which Islamic State of Iraq and the Levant (ISIL) claimed responsibility, killed 34 people and injured 104 others.Alexander the Great (b.356 BC)Amanda Clement (d.1971)Bruce Lee (d.1973)Gisele Bndchen (b.1980)More anniversaries: July 19July 20July 21ArchiveBy emailList of days of the yearAboutC/2022 E3 (ZTF) is a non-periodic comet from the Oort cloud that was discovered by the Zwicky Transient Facility (ZTF) in 2022. With a comet nucleus of around 1 kilometre (0.62mi) in diameter, C/2022 E3 rotates on its axis once every 8.5 to 8.7 hours. Its tails of dust and gas extended for millions of kilometers and, during January 2023, an anti-tail was also visible. The comet reached its most recent perihelion in January 2023, at a distance of 1.11AU (166millionkm; 103millionmi) from the sun, and the closest approach to Earth was a few weeks later, at a distance of 0.28AU (42millionkm; 26millionmi). The comet reached magnitude 5 and was visible with the naked eye under moonless dark skies. This photograph of C/2022 E3 was taken in January 2023 and released by the Italian National Institute for Astrophysics.Photograph credit: Alessandro Bianconi; National Institute for AstrophysicsRecently featured: Passion fruitBasilica of StPaul, RabatClouded ApolloArchiveMore featured picturesCommunity portal The central hub for editors, with resources, links, tasks, and announcements.Village pump Forum for discussions about Wikipedia itself, including policies and technical issues.Site news Sources of news about Wikipedia and the broader Wikimedia movement.Teahouse Ask basic questions about using or editing Wikipedia.Help desk Ask questions about using or editing Wikipedia.Reference desk Ask research questions about encyclopedic topics.Content portals A unique way to navigate the encyclopedia.Wikipedia is written by volunteer editors and hosted by the Wikimedia Foundation, a non-profit organization that also hosts a range of other volunteer projects: CommonsFree media repository MediaWikiWiki software development Meta-WikiWikimedia project coordination WikibooksFree textbooks and manuals WikidataFree knowledge base WikinewsFree-content news WikiquoteCollection of quotations WikisourceFree-content library WikispeciesDirectory of species WikiversityFree learning tools WikivoyageFree travel guide WiktionaryDictionary and thesaurusThis Wikipedia is written in English. Many other Wikipedias are available; some of the largest are listed below. 1,000,000+ articles DeutschEspaolFranaisItalianoNederlandsPolskiPortugusSvenskaTing Vit 250,000+ articles Bahasa IndonesiaBahasa MelayuBn-lm-gCataletinaDanskEestiEsperantoEuskaraMagyarNorsk bokmlRomnSimple EnglishSloveninaSrpskiSrpskohrvatskiSuomiTrkeOzbekcha 50,000+ articles AsturianuAzrbaycancaBosanskiFryskGaeilgeGalegoHrvatskiKurdLatvieuLietuviNorsk nynorskShqipSloveninaRetrieved from " 2This article needs additional citations for verification. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed.Find sources:"1807"news newspapers books scholar JSTOR (November 2015) (Learn how and when to remove this message)Calendar yearYearsMillennium2ndmillenniumCenturies18thcentury19thcentury 20thcenturyDecades1780s1790s1800s 1810s1820sYears1804180518061807 180818091810vteFebruary 7: Napoleon leads French troops into Russia in winter, and fights the Battle of Eylau.June 14: Napoleon triumphs over Russia's General Benningsen, at the Battle of Friedland.1807 (MDCCCVII) was a common year starting on Thursday of the Gregorian calendarand a common year starting on Tuesday of the Julian calendar, the 1807th year of the Common Era (CE) and Anno Domini (AD) designations, the 807th year of the 2ndmillennium, the 7th year of the 19thcentury, and the 8th year of the 1800s decade. As of the start of 1807, the Gregorian calendar was 12 days ahead of the Julian calendar, which remained in localized use until 1923. Calendar year 1807 by topicHumanitiesArchaeologyArchitectureArtLiteraturePoetryMusicBy countryAustraliaBrazilCanadaDenmarkFranceGermanyNew ZealandNorwayRussiaSouth AfricaSwedenUnited KingdomUnited StatesOther topicsRail transportScienceSportsLists of leadersSovereign statesSovereign state leadersTerritorial governorsReligious leadersLawBirth and death categoriesBirthsDeathsEstablishments and disestablishments categoriesEstablishmentsDisestablishmentsWorks categoryWorksvte1807 in various calendarsGregorian calendar1807MDCCCVIIAb urbe condita2560Armenian calendar1256 Assyrian calendar6557Balinese saka calendar17281729Bengali calendar12131214Berber calendar2757British Regnal year47Geo.348Geo.3Buddhist calendar2351Burmese calendar1169Byzantine calendar73157316Chinese calendar (FireTiger)4504 or 4297to (FireRabbit)4505 or 4298Coptic calendar15231524Discordian calendar2973Ethiopian calendar17991800Hebrew calendar55675568Hindu calendars- Vikram Samvat18631864- Shaka Samvat17281729- Kali Yuga49074908Holocene calendar11807Igbo calendar807808Iranian calendar11851186Islamic calendar12211222Japanese calendarBunka 4()Javanese calendar17331734Julian calendarGregorian minus 12 daysKorean calendar4140Minguo calendar105 before ROC105Nanakshahi calendar339Thai solar calendar23492350Tibetan calendar(male Fire-Tiger)1933 or 1552 or 780to(female Fire-Hare)1934 or 1553 or 781Wikimedia Commons has media related to 1807.January 7 The United Kingdom of Great Britain and Ireland issues an Order in Council prohibiting British ships from trading with France or its allies.[1]January 20 The Sierra Leone Company, faced with bankruptcy because of the imminent abolition of the slave trade in British colonies, petitions the British government for purchase and transfer of its property to the Crown; Parliament approves the transfer on July 29, and it takes effect on January 1, 1808.[2]February 3 Napoleonic Wars and Anglo-Spanish War: Battle of Montevideo The British Army captures Montevideo from the Spanish Empire, as part of the British invasions of the Ro de la Plata.February 7 Napoleon leads the forces of the French Empire in an invasion of the Russian Empire, and begins fighting at the Battle of Eylau against Russian and Prussian forces.[3]February 8 Battle of Eylau: Napoleon fights a hard but inconclusive battle against the Russians under Bennigsen.February 10 The Survey of the Coast (renamed the United States Coast Survey in 1836 and the United States Coast and Geodetic Survey in 1878) is established; work begins on August 3, 1816.February 17 Henry Christopher is elected first President of the State of Haiti, ruling the northern part of the country.February 19 Burr conspiracy: In Alabama, former Vice President of the United States Aaron Burr is tried for conspiracy, but acquitted.February 23 The Slave Trade Act is passed in the House of Commons of the United Kingdom by an overwhelming majority.[4]March 2 The United States Congress passes the Act Prohibiting Importation of Slaves "into any port or place within the jurisdiction of the United States ... from any foreign kingdom, place, or country" (to take effect January 1, 1808).March 25The United Kingdom Slave Trade Act becomes law abolishing the slave trade in most of the British Empire[5] with effect from 1 May (slavery itself is abolished in British colonies in 1833).The Swansea and Mumbles Railway in South Wales, at this time known as the Oystermouth Railway, becomes the first passenger-carrying railway in the world.March 29 H. W. Olbers discovers the asteroid Vesta.April 412 Froberg mutiny: The British suppress a mutiny at Fort Ricasoli, Malta, by men of the irregularly-recruited Froberg Regiment.April 14 African Institution holds its first meeting in London; it is intended to improve social conditions in Sierra Leone.May 22 A grand jury indicts former Vice President of the United States Aaron Burr for treason.[6]May 24 Siege of Danzig ends after 6 weeks with Prussian and Russian defenders capitulating to French forces.May 29 Selim III, Ottoman Emperor since 1789, is deposed in favour of his nephew Mustafa IV.May 31 Primitive Methodism originates in an All Day of Prayer at Mow Cop, in the north midlands of England.[7]June 9 The Duke of Portland is chosen as Prime Minister after the United Kingdom general election.June 10 The Battle of Heilsberg ends in a draw.June 14 Battle of Friedland: Napoleon decisively defeats Bennigsen's Russian army.June 22 ChesapeakeLeopard affair: British Royal Navy fourth rate HMSLeopard attacks and boards United States Navy frigate USS Chesapeake off Norfolk, Virginia, seeking deserters. This act of British aggression plays a role in the run-up to the War of 1812.July 5 A disastrous British attack is mounted against Buenos Aires, during the second failed invasion of the Ro de la Plata.July 79 The Treaties of Tilsit are signed between France, Prussia and Russia. Napoleon and Russian Emperor Alexander I ally together against the British. The Prussians are forced to cede more than half their territory, which is formed into the Duchy of Warsaw in their former Polish lands, and the Kingdom of Westphalia in western Germany. The Free City of Danzig is also formed (established September 9 by Napoleon).July 13 With the death of Henry Benedict Stuart, the last Stuart claimant to the throne of the United Kingdom, Jacobitism comes to an effective end.July 20 Nicphore Nipce is awarded a patent by Napoleon Bonaparte for the Pyrolophore, the world's first internal combustion engine, after it successfully powers a boat upstream on the river Sane in France.August 17 The North River Steamboat, Robert Fulton's first American steamboat, leaves New York City for Albany on the Hudson River, inaugurating the first commercial steamboat service in the world.September 1 Former U.S. Vice President Aaron Burr is acquitted of treason. He had been accused of plotting to annex parts of Louisiana and Mexico, to become part of an independent republic.September 27 Battle of Copenhagen: The British Royal Navy bombards Copenhagen with fire bombs and phosphorus rockets, to prevent the Dano-Norwegian navy from surrendering to Napoleon; 30% of the city is destroyed, and 2,000 citizens are killed.September 7 Robert Morrison, the first Protestant missionary to China, arrives in Guangzhou (Canton).[8]September 13 Beethoven's Mass in C major, Op. 86, is premiered, commissioned by Nikolaus I, Prince Esterhzy, and displeasing him.[9]September 27 Napoleon purchases the Borghese art collection, including the Antinous Mondragone, and brings it to Paris.[10]October 9 Prussian Reform Movement: Serfdom is abolished by the October edict.October 13 The Geological Society of London is founded.October 30 El Escorial Conspiracy: Ferdinand, Prince of Asturias is arrested for conspiring against his father Charles IV of Spain.November 24 Battle of Abrantes, Portugal: The French under Jean-Andoche Junot take the town.November 29 Portuguese Queen Maria I and the Court embark at Lisbon, bound for Brazil. Rio de Janeiro becomes the Portuguese capital.December 511 Napoleonic Wars: Raid on Griessie A British Royal Navy squadron attacks the Dutch port of Griessie on Java in the Dutch East Indies, eliminating the last Dutch naval force in the Pacific and concluding the Java campaign of 18061807.[11]December 17 Napoleonic Wars: France issues the Milan Decree which confirms the Continental System (i.e. no European country is to trade with the United Kingdom).December 22 The United States Congress passes the Embargo Act, a trade embargo on all foreign nations.Battle of Hingakaka between two factions of Mori people, the largest battle ever fought in New Zealand, and the last fought there without firearms.[12] In 1807 or 1808 is fought the Battle of Moremonui, first of the Musket Wars.Robert E. LeeJanuary 13 Napoleon Bonaparte Buford, American general, railroad executive (d. 1883)January 19 Robert E. Lee, American Confederate general (d. 1870)January 28 Robert McClure, Irish-born Arctic explorer (d. 1873)February 10 Lajos Batthyny, 1st Prime Minister of Hungary (d. 1849)February 27 Henry Wadsworth Longfellow, American poet (d. 1882)[13]March 1 Wilford Woodruff, American religious leader (d. 1898)March 14 Josephine of Leuchtenberg, Queen of Sweden and Norway (d. 1876)April 2 William F. Packer, American politician (d. 1870)April 3 Jane Digby, English adventurer (d. 1881)April 20 John Milton, Governor of Florida (d. 1865)April 26 Charles Auguste Frossard, French general (d. 1875)May 28 Louis Agassiz, Swiss-born zoologist and geologist (d. 1873)June 6 Adrien-Franois Servais, Belgian musician (d. 1866)June 16 John Westcott, American surveyor and politician (d. 1888)Giuseppe GaribaldiJuly 4 Giuseppe Garibaldi, Italian patriot (d. 1882)August 11 David Rice Atchison, American politician (d. 1886)August 15 Jules Grvy, 4th President of France (d. 1891)August 18 Charles Francis Adams Sr., American historical editor, politician and diplomat (d. 1886)September 2 Fredrika Runeberg, Finnish writer (d. 1879)[14]September 7 Henry Sewell, 1st Premier of New Zealand (d. 1879)September 16 John Lenthall, American naval architect and shipbuilder (d. 1882)October 8 Harriet Taylor, English philosophical writer (d. 1858)[15]October 26 Barbu Catargiu, 1st Prime Minister of Romania (d. 1862)October 29 Aneo Kraljevi, Herzegovinian Catholic bishop (d. 1879)October 30 Christopher Wordsworth, Bishop of Lincoln (d. 1885)November 16 Eduard von Fransecky, Prussian general (d. 1890)December 8 Friedrich Traugott Ktzing, German pharmacist, botanist and phycologist (d. 1893)December 17 John Greenleaf Whittier, American Quaker poet and abolitionist (d. 1892)Pasquale PaoliFebruary 1 Sir Thomas Troubridge, 1st Baronet, British admiral (b. c.1758)February 5 Pasquale Paoli, Corsican patriot, military leader (b. 1725)February 27 Louise du Pierry, French astronomer (b.1746)March 10 Jean Thurel, French soldier (b. 1698)April 4 Jrme Lalande, French astronomer (b. 1732)April 10 Duchess Anna Amalia of Brunswick-Wolfenbttel, regent of Weimar and Eisenach (b. 1739)May 10 Jean-Baptiste Donatien de Vimeur, comte de Rochambeau, French soldier (b. 1725)May 13 Eliphalet Dyer, American statesman, judge (b. 1721)May 17 John Gunby, Maryland soldier in the American Revolutionary War (b. 1745)May 18 John Douglas, Scottish Anglican bishop, man of letters (b. 1721)June 9 Andrew Sterett, American naval officer (b. 1778)Angelica KauffmanJuly 13 Henry Benedict Stuart, Italian-born cardinal, Jacobite claimant to the British throne (b. 1725)July 19 Uriah Tracy, American politician and congressman from Connecticut, 1793 until 1807 (b. 1755)September 14 George Townshend, 1st Marquess Townshend, British field marshal (b. 1724)October 22 Jean-Franois Houbigant, French perfumer (b. 1752)November 2 Louis Auguste Le Tonnelier de Breteuil, Prime Minister of King Louis XVI of France (b. 1730)November 5 Angelica Kauffman, Swiss painter (b. 1741)November 8Darejan Dadiani, Georgian queen consort (b. 1738)Pierre-Alexandre-Laurent Forfait, French engineer, hydrographer, politician, and Minister of the Navy (17991801) (b. 1752)November 23 Jean-Franois Rewbell, French politician (b. 1747)November 26 Oliver Ellsworth, American founding father and 3rd Chief Justice of the United States Supreme Court (b. 1745)December 19 Friedrich Melchior, Baron von Grimm, German writer (b. 1723)December 21 John Newton, English cleric, hymnist (b. 1725)December 29 Diogo de Carvalho e Sampayo, Portuguese diplomat, scientist (b. 1750)^ William S. 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Oxford Dictionary of National Biography (onlineed.). Oxford University Press. doi:10.1093/ref:odnb/38051. (Subscription or UK public library membership required.)Retrieved from " 3Second-largest asteroid of the main asteroid beltThis article is about the asteroid. For the Roman goddess, see Vesta (mythology). For other uses, see Vesta (disambiguation).4 VestaTrue color image of Vesta taken by Dawn. The massive Rheasilvia Crater dominates Vesta's south pole.DiscoveryDiscoveredbyHeinrich Wilhelm OlbersDiscoverydate29 March 1807DesignationsMPCdesignation(4) VestaPronunciation/vst/[1]Named afterVestaMinorplanet categoryMain belt (Vesta family)AdjectivesVestanVestian[a]Symbol (historically astronomical, now astrological)Orbital characteristics[6]Epoch 13September 2023(JD2453300.5)Aphelion2.57AU (384millionkm)Perihelion2.15AU (322millionkm)Semi-major axis2.36AU (353millionkm)Eccentricity0.0894Orbital period (sidereal)3.63yr (1325.86d)Average orbital speed19.34km/sMean anomaly169.4Inclination7.1422 to ecliptic5.58 to invariable plane[7]Longit

mission provided much greater detail on Rheasilvia's structure and composition, confirming it as one of the largest impact structures known relative to its parent body size.[74] The impact clearly modified the pre-existing very large, Veneneia structure, indicating Rheasilvia's younger age.[74] Rheasilvia's size makes Vesta's southern topography unique, creating a flattened southern hemisphere and contributing significantly to the asteroid's overall oblate shape.[69] Rheasilvia's ~22km (14mi) central peak stands as one of the tallest mountains identified in the Solar System.[74] Its base width of roughly 180km (110mi) and complex morphology distinguishes it from the simpler central peaks seen in smaller craters.[77] Numerical modeling indicates that such a large central structure within a ~505km (314mi) diameter basin requires formation on a differentiated body with significant gravity. Scaling laws for craters on smaller asteroids fail to predict such a feature; instead, impact dynamics involving transient crater collapse and rebound of the underlying material (potentially upper mantle) are needed to explain its formation.[77] Hydrocode simulations suggest the impactor responsible was likely 6070km (3743mi) across, impacting at roughly 5.4 km/s.[78] Models of impact angle (around 30-45 degrees from vertical) better match the detailed morphology of the basin and its prominent peak.[77] Crater density measurements on Rheasilvia's relatively unmodified floor materials and surrounding ejecta deposits, calibrated using standard lunar chronology functions adapted for Vesta's location, place the impact event at approximately 1 billion years ago.[79][70] This age makes Rheasilvia a relatively young feature on a protoplanetary body formed early in Solar System history. The estimated excavation of ~1% of Vesta's volume[74] provides a direct link to the Vesta family of asteroids (Vestoids) and the HED meteorites. Since Vesta's spectral signature matches that of the Vestoids and HEDs, this strongly indicates they are fragments ejected from Vesta most likely during the Rheasilvia impact.[27][79] The Dawn mission's VIR instrument helped to confirm the basin's deep excavation and compositional diversity. VIR mapping revealed spectral variations across the basin consistent with the mixing of different crustal layers expected in the HED meteorites. Signatures matching eucrites (shallow crustal basalts) and diogenites (deeper crustal orthopyroxenites) were identified, which usually correlate with specific morphological features like crater walls or slump blocks.[80][27] The confirmed signature of olivine-rich material, which were first hinted at by Hubble observations is strongest on the flanks of the central peak and in specific patches along the basin rim and walls, suggesting it is not uniformly distributed but rather exposed in distinct outcrops.[81][80] As the dominant mineral expected in Vesta's mantle beneath the HED-like crust,[10] the presence of olivine indicates the Rheasilvia impact penetrated Vesta's entire crust (~2040km (1225mi) thick in the region) and excavated material from the upper mantle.[81] Furthermore, the global stresses resulting from this massive impact are considered the likely trigger for the formation of the large trough systems, like Divalia Fossa, that encircle Vesta's equatorial regions.[82][69]The crater AeliaFeralia Planitia, an old, degraded impact basin or impact basin complex near Vesta's equator (green and blue). It is 270km (168mi) across and predates Rheasilvia (green at bottom)Several old, degraded craters approach Rheasilvia and Veneneia in size, although none are quite so large. They include Feralia Planitia, shown at right, which is 270km (168mi) across.[83] More-recent, sharper craters range up to 158km (98mi) Varronilla and 196km (122mi) Postumia.[84]Dust fills up some craters, creating so-called dust ponds. They are a phenomenon where pockets of dust are seen in celestial bodies without a significant atmosphere. These are smooth deposits of dust accumulated in depressions on the surface of the body (like craters), contrasting from the Rocky terrain around them.[85] On the surface of Vesta, we have identified both type1 (formed from impact melt) and type2 (electrostatically made) dust ponds within 030N/S, that is, Equatorial region. 10craters have been identified with such formations.[86]The "snowman craters" are a group of three adjacent craters in Vesta's northern hemisphere. Their official names, from largest to smallest (west to east), are Marcia, Calpurnia, and Minucia. Marcia is the youngest and cross-cuts Calpurnia. Minucia is the oldest.[70]"Snowman" craters by Dawn from 5,200km (3,200mi) in 2011Detailed image of the "Snowman" cratersThe majority of the equatorial region of Vesta is sculpted by a series of parallel troughs designated Divalia Fossae; its longest trough is 1020 kilometres (6.212.4mi) wide and 465 kilometres (289mi) long. Despite the fact that Vesta is a one-seventh the size of the Moon, Divalia Fossae dwarfs the Grand Canyon. A second series, inclined to the equator, is found further north. This northern trough system is named Saturnalia Fossae, with its largest trough being roughly 40km (25mi) wide and over 370km (230mi) long. These troughs are thought to be large-scale graben resulting from the impacts that created Rheasilvia and Veneneia craters, respectively. They are some of the longest chasms in the Solar System, nearly as long as Ithaca Chasma on Tethys. The troughs may be graben that formed after another asteroid collided with Vesta, a process that can happen only in a body that is differentiated,[82] which Vesta may not fully be. Alternatively, it is proposed that the troughs may be radial sculptures created by secondary cratering from Rheasilvia.[87]A section of Divalia Fossae, with parallel troughs to the north and southA computer-generated view of a portion of Divalia FossaeCompositional information from the visible and infrared spectrometer (VIR), gamma-ray and neutron detector (GRaND), and framing camera (FC), all indicate that the majority of the surface composition of Vesta is consistent with the composition of the howardite, eucrite, and diogenite meteorites.[88][89][90] The Rheasilvia region is richest in diogenite, consistent with the Rheasilvia-forming impact excavating material from deeper within Vesta. The presence of olivine within the Rheasilvia region would also be consistent with excavation of mantle material. However, olivine has only been detected in localized regions of the northern hemisphere, not within Rheasilvia.[32] The origin of this olivine is currently unclear. Though olivine was expected by astronomers to have originated from Vesta's mantle prior to the arrival of the Dawn orbiter, the lack of olivine within the Rheasilvia and Veneneia impact basins complicates this view. Both impact basins excavated Vestian material down to 60100km, far deeper than the expected thickness of ~3040km for Vesta's crust. Vesta's crust may be far thicker than expected or the violent impact events that created Rheasilvia and Veneneia may have mixed material enough to obscure olivine from observations. Alternatively, Dawn observations of olivine could instead be due to delivery by olivine-rich impactors, unrelated to Vesta's internal structure.[91]Pitted terrain has been observed in four craters on Vesta: Marcia, Cornelia, Numisia and Licinia.[92] The formation of the pitted terrain is proposed to be degassing of impact-heated volatile-bearing material. Along with the pitted terrain, curvilinear gullies are found in Marcia and Cornelia craters. The curvilinear gullies end in lobate deposits, which are sometimes covered by pitted terrain, and are proposed to form by the transient flow of liquid water after buried deposits of ice were melted by the heat of the impacts.[71] Hydrated materials have also been detected, many of which are associated with areas of dark material.[93] Consequently, dark material is thought to be largely composed of carbonaceous chondrite, which was deposited on the surface by impacts. Carbonaceous chondrites are comparatively rich in mineralogically bound OH.[90]Cut-away schematic of Vestan core, mantle, and crustEucrite meteoriteA large collection of potential samples from Vesta is accessible to scientists, in the form of over 1200HED meteorites (Vestan achondrites), giving insight into Vesta's geologic history and structure. NASA Infrared Telescope Facility (NASA IRTF) studies of asteroid (237442) 1999 TA10 suggest that it originated from deeper within Vesta than the HED meteorites.[94]Vesta is thought to consist of a metallic ironnickel core, variously estimated to be 90km (56mi)[63] to 220km (140mi)[10] in diameter, an overlying rocky olivine mantle, with a surface crust of similar composition to HED meteorites.From the first appearance of calciumaluminium-rich inclusions (the first solid matter in the Solar System, forming about 4.567billion years ago), a likely time line is as follows:[95][96][97][98][99]Timeline of the evolution of Vesta23million yearsAccretion completed45million yearsComplete or almost complete melting due to radioactive decay of 26Al, leading to separation of the metal core67million yearsProgressive crystallization of a convecting molten mantle. Convection stopped when about 80% of the material had crystallizedExtrusion of the remaining molten material to form the crust, either as basaltic lavas in progressive eruptions, or possibly forming a short-lived magma ocean.The deeper layers of the crust crystallize to form plutonic rocks, whereas older basalts are metamorphosed due to the pressure of newer surface layers.Slow cooling of the interiorVesta is the only known intact asteroid that has been resurfaced in this manner. Because of this, some scientists refer to Vesta as a protoplanet.[100]Composition of the Vestan crust (by depth)[101]A lithified regolith, the source of howardites and brecciated eucrites.Basaltic lava flows, a source of non-cumulate eucrites.Plutonic rocks consisting of pyroxene, pigeonite and plagioclase, the source of cumulate eucrites.Plutonic rocks rich in orthopyroxene with large grain sizes, the source of diogenites.On the basis of the sizes of V-type asteroids (thought to be pieces of Vesta's crust ejected during large impacts), and the depth of Rheasilvia crater (see below), the crust is thought to be roughly 10 kilometres (6mi) thick.[102]Findings from the Dawn spacecraft have found evidence that the troughs that wrap around Vesta could be graben formed by impact-induced faulting (see Troughs section above), meaning that Vesta has more complex geology than other asteroids. The impacts that created the Rheasilvia and Veneneia craters occurred when Vesta was no longer warm and plastic enough to return to an equilibrium shape, distorting its once rounded shape and prohibiting it from being classified as a dwarf planet today.[citation needed]Vesta's surface is covered by regolith distinct from that found on the Moon or asteroids such as Itokawa. This is because space weathering acts differently. Vesta's surface shows no significant trace of nanophase iron because the impact speeds on Vesta are too low to make rock melting and vaporization an appreciable process. Instead, regolith evolution is dominated by brecciation and subsequent mixing of bright and dark components.[103] The dark component is probably due to the infall of carbonaceous material, whereas the bright component is the original Vesta basaltic soil.[104]Some small Solar System bodies are suspected to be fragments of Vesta caused by impacts. The Vestian asteroids and HED meteorites are examples. The V-type asteroid 1929 Kollaa has been determined to have a composition akin to cumulate eucrite meteorites, indicating its origin deep within Vesta's crust.[28]Vesta is currently one of only eight identified Solar System bodies of which we have physical samples, coming from a number of meteorites suspected to be Vestan fragments. It is estimated that 1 out of 16 meteorites originated from Vesta.[105] The other identified Solar System samples are from Earth itself, meteorites from Mars, meteorites from the Moon, and samples returned from the Moon, the comet Wild 2, and the asteroids 25143 Itokawa, 162173 Ryugu, and 101955 Bennu.[29][k]Animation of Dawn's trajectory from 27 September 2007 to 5 October 2018 Dawn Earth Mars 4 Vesta 1 CeresFirst image of asteroids (Ceres and Vesta) taken from Mars. The image was made by the Curiosity rover on 20 April 2014.Animation of Dawn's trajectory around 4 Vesta from 15 July 2011 to 10 September 2012 Dawn 4 VestaIn 1981, a proposal for an asteroid mission was submitted to the European Space Agency (ESA). Named the Asteroidal Gravity Optical and Radar Analysis (AGORA), this spacecraft was to launch some time in 19901994 and perform two flybys of large asteroids. The preferred target for this mission was Vesta. AGORA would reach the asteroid belt either by a gravitational slingshot trajectory past Mars or by means of a small ion engine. However, the proposal was refused by the ESA. A joint NASAESA asteroid mission was then drawn up for a Multiple Asteroid Orbiter with Solar Electric Propulsion (MAOSEP), with one of the mission profiles including an orbit of Vesta. NASA indicated they were not interested in an asteroid mission. Instead, the ESA set up a technological study of a spacecraft with an ion drive. Other missions to the asteroid belt were proposed in the 1980s by France, Germany, Italy and the United States, but none were approved.[106] Exploration of Vesta by fly-by and impacting penetrator was the second main target of the first plan of the multi-aimed Soviet Vesta mission, developed in cooperation with European countries for realisation in 19911994 but canceled due to the dissolution of the Soviet Union.Artist's conception of Dawn orbiting VestaIn the early 1990s, NASA initiated the Discovery Program, which was intended to be a series of low-cost scientific missions. In 1996, the program's study team recommended a mission to explore the asteroid belt using a spacecraft with an ion engine as a high priority. Funding for this program remained problematic for several years, but by 2004 the Dawn vehicle had passed its critical design review[107] and construction proceeded.[citation needed]It launched on 27 September 2007 as the first space mission to Vesta. On 3 May 2011, Dawn acquired its first targeting image 1.2million kilometres (0.7510^6mi) from Vesta.[108] On 16 July 2011, NASA confirmed that it received telemetry from Dawn indicating that the spacecraft successfully entered Vesta's orbit.[109] It was scheduled to orbit Vesta for one year, until July 2012.[110] Dawn's arrival coincided with late summer in the southern hemisphere of Vesta, with the large crater at Vesta's south pole (Rheasilvia) in sunlight. Because a season on Vesta lasts eleven months, the northern hemisphere, including anticipated compression fractures opposite the crater, would become visible to Dawn's cameras before it left orbit.[111] Dawn left orbit around Vesta on 4 September 2012 11:26 p.m. PDT to travel to Ceres.[112]NASA/DLR released imagery and summary information from a survey orbit, two high-altitude orbits (6070m/pixel) and a low-altitude mapping orbit (20m/pixel), including digital terrain models, videos and atlases.[113][114][115][116][117][118] Scientists also used Dawn to calculate Vesta's precise mass and gravity field. The subsequent determination of the J2 component yielded a core diameter estimate of about 220km (140mi) assuming a crustal density similar to that of the HED.[113]Dawn data can be accessed by the public at the UCLA website.[119]Albedo and spectral maps of 4 Vesta, as determined from Hubble Space Telescope images from November 1994Elevation map of 4 Vesta, as determined from Hubble Space Telescope images of May 1996Elevation diagram of 4 Vesta (as determined from Hubble Space Telescope images of May 1996) viewed from the south-east, showing Rheasilvia crater at the south pole and Feralia Planitia near the equatorVesta seen by the Hubble Space Telescope in May 2007The 2006 IAU draft proposal on the definition of a planet listed Vesta as a candidate.[120] Vesta is shown fourth from the left along the bottom row.Vesta comes into view as the Dawn spacecraft approaches and enters orbit:Vesta from 100,000km(1 July 2011)Vesta from 41,000km(9 July 2011)In orbit at 16,000km(17 July 2011)In orbit from 10,500km(18 July 2011)The northern hemisphere from 5,200km(23 July 2011)In orbit from 5,200km(24 July 2011)In orbit from 3,700km(31 July 2011)Full rotation(1 August 2011)Composite greyscale imageCratered terrain with hills and ridges(6 August 2011)Densely cratered terrain near terminator(6 August 2011)Vestan craters in various states of degradation, with troughs at bottom(6 August 2011)Hill shaded central mound at the south pole of Vesta(2 February 2015)Detailed images retrieved during the high-altitude (6070m/pixel) and low-altitude (~20m/pixel) mapping orbits are available on the Dawn Mission website of JPL/NASA.[121]Annotated image from Earth's surface in June 2007 with (4) VestaIts size and unusually bright surface make Vesta the brightest asteroid, and it is occasionally visible to the naked eye from dark skies (without light pollution). In May and June 2007, Vesta reached a peak magnitude of +5.4, the brightest since 1989.[122] At that time, opposition and perihelion were only a few weeks apart.[123] It was brighter still at its 22 June 2018 opposition, reaching a magnitude of +5.3.[124]Less favorable oppositions during late autumn 2008 in the Northern Hemisphere still had Vesta at a magnitude of from +6.5 to +7.3.[125] Even when in conjunction with the Sun, Vesta will have a magnitude around +8.5; thus from a pollution-free sky it can be observed with binoculars even at elongations much smaller than near opposition.[125]In 2010, Vesta reached opposition in the constellation of Leo on the night of 1718 February, at about magnitude 6.1,[126] a brightness that makes it visible in binocular range but generally not for the naked eye. Under perfect dark sky conditions where all light pollution is absent it might be visible to an experienced observer without the use of a telescope or binoculars. Vesta came to opposition again on 5 August 2011, in the constellation of Capricornus at about magnitude 5.6.[126][127]Vesta was at opposition again on 9 December 2012.[128] According to Sky and Telescope magazine, this year Vesta came within about 6 degrees of 1 Ceres during the winter of 2012 and spring 2013.[129] Vesta orbits the Sun in 3.63 years and Ceres in 4.6 years, so every 17.4 years Vesta overtakes Ceres (the previous overtaking was in April 1996).[129] On 1 December 2012, Vesta had a magnitude of 6.6, but it had decreased to 8.4 by 1 May 2013.[129]Conjunction of Ceres and Vesta near the star Gamma Virginis on 5 July 2014 in the Constellation of Virgo.Ceres and Vesta came within one degree of each other in the night sky in July 2014.[129]3103 Eger3551 Verenia3908 Nyx4055 MagellanAsteroids in fictionDiogeniteEucriteList of former planetsHowarditeVesta family (vestoids)List of tallest mountains in the Solar System^ Marc Rayman of the JPL Dawn team used "Vestian" (analogous to the Greek cognate Hestian) a few times in 2010 and early 2011 in his Dawn Journal, and the Planetary Society continued to use that form for a few more years.[2] The word had been used elsewhere, e.g. in Tsiolkovsky (1960) The call of the cosmos. However, otherwise the shorter form "Vestan" has been used by JPL.[3] Most modern print sources also use "Vestan".[4][5]Note that the related word "Vestalian" refers to people or things associated with Vesta, such as the vestal virgins, not to Vesta herself.^ Calculated using the known dimensions assuming an ellipsoid.^ Calculated using (1) the known rotation period (5.342h)[6] and (2) the equatorial radius Req (285km)[10] of the best-fit biaxial ellipsoid to Asteroid 4 Vesta.^ a b topocentric coordinates computed for the selected location: Greenwich, United Kingdom[14]^ On 10 February 2009, during Ceres perihelion, Ceres was closer to the Sun than Vesta, because Vesta has an aphelion distance greater than Ceres's perihelion distance. (10 February 2009: Vesta 2.56AU; Ceres 2.54AU)^ wist is the closest Chinese approximation of the Latin pronunciation westa.^ Some sources contemporaneous to Gauss invented more elaborate forms, such as and .[43][44] A simplification of the latter from c.1930, ,[45] never caught on.^ This symbol can be seen in the top of the most elaborate of the earlier forms, . It dates from 1973, at the beginning of astrological interest in asteroids.[46]^ The data returned will include, for both asteroids, full surface imagery, full surface spectrometric mapping, elemental abundances, topographic profiles, gravity fields, and mapping of remnant magnetism, if any.[53]^ that is, blue in the north does not mean the same thing as blue in the south.^ Note that 6 Hebe may be the parent body for H chondrites, one of the most common meteorite types.^ "Vesta". Dictionary.com Unabridged (Online). n.d.^ "Search Results". Planetary Society. Archived from the original on 27 July 2020. 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