# World Asterisms Project

*An Introduction to the Sky Cultures of the World*

Volume Three: World Asterism Sky Cultures Resource List

Version 2026.6

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## General:

In this appendix I list all the cultures of the world that I examined to produce this list of world asterisms. We've examined 800 so far. Some of the cultures listed here do not have asterisms on this list but do have archaeological monuments or observatories that indicate that they did observe the sky. Some have limited information on their skies that indicate that they did have asterisms, although we do not know where in the sky they were. I've only listed asterisms in this list that I can locate in the sky. With a little luck and some more research, hopefully we will be able to locate some of these in the future and add them to this list.

Let's start by listing some general resources for those studying world asterisms:

Publications:


- Abraham, George. *Ancient and Medieval Star Catalogues*, in Indian Journal of Science, Volume 32, Number 1, 1997, pp. 47-51.
- Ackermann, Silke. *Bartholomew of Parma, Michael Scot and the Set of New Constellations on Bartholomew's Breviloquium de fructu totius astronomie*, in: Battistini, P., Bònoli, F., Braccesi, A. and Buzzeti, D. [eds.], Seventh Centenary of the Teaching of Astronomy in Bologna, 1297-1997, 2001, pp. 77-98.
- Ackermann, Silke. *The Path of the Moon Engraved. Lunar Mansions on European and Islamic Scientific Instruments*, Micrologus, 12, 2004, pp. 135–164 + 14 plates.
- Allard, Carel. *Planisphaerii Coelestis Hemisphaerium Meridionale,* 1709.
- Allen: R. H.: *Star-Names and their Meanings*. G. E. Stechert, New York/ London/ Leipzig/ Paris 1899, reprinted 1963
- Ammarell, Gene, and Lowenhaupt Tsing, Anna. *Cultural Production of Skylore in Indonesia*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2207.
- Anastasiou, Magdalini. et al. *Positional Astronomy and the Parapegma of the Antikythera Mechanism*, in: Proceedings of Science (Antikythera & SKA, 029). [Note: Proceedings of the meeting 'From Antikythera to the Square Kilometre Array: Lessons from the Ancients.' (Antikythera & SKA). 12-15 June 2012. Kerastari, Greece.
- Antonello, Elio. *Cultural Astronomy and Archaeoastronomy: An Italian Experience*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 507.
- Antonello, Elio. *On the Possibility of an 'Astronomical Perspective' in the Study of Human Evolution*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 41.
- Antoniszoon, Cornelius. *The Safegard of Saylers, or great Rutter.Contayning the Courses, Distances, Soundings, Flouds and Ebbes, with the markes for the entring of sundry Harboroughs both of England, France, Spaine, Ireland, Flaunders, and the Soundes of Denmarke, with other necessarie Rules of common Nauigation. Translated out of Dutch into English, by Robert Norman Hydrographer. And newly corrected and augmented by E W. 1605*.Imprinted at London by E. Allde for H. Astley, 1605. https://quod.lib.umich.edu/e/eebo/a11283.0001.001/1?page=root;size=125;view=text

- Antonova, Y. *The Specificity of Pre-Literary and Early-Literary Cultures and the Problem of Their Interpretation as Symbols of Heavenly Bodies*, Astronomical and Astrophysical Transactions, Volume 17, Number 6, 1999, pp. 441-448.
- Apianus, Petrus. The *Astronomicum Caesarium*, Ingolstadt, 1540.
- Arp, Halton C. *Atlas of Peculiar Galaxies*, California Institute of Technology, 1966.
- Aspin, Jehoshaphat, Wyld, Griffith, and Wyld James Grant. *An Improved Moveable Planisphere*, c. 1850.
- Ataoguz, Kirsten. *Role of Light-Shadow Hierophanies in Early Medieval Art*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1733.
- Aveni, Anthony *"Archaeoastronomy: Past, Present and Future"* in Sky & Telescope, Nov. 1986, p. 456.
- Aveni, Anthony: *Conversing with the Planets*. 1992, Times Books.
- Aveni, Anthony: *Empires of Time*. 1989, Basic Books.
- Aveni, Anthony. *People and the Sky*, 2008.
- Aveni, Anthony: *Stairways to the Stars: Skywatching in Three Great Ancient Cultures*. 1997, John Wiley.
- Aveni, Anthony: *World Archaeoastronomy*. 1989, Cambridge University Press.
- Bailey, Solon I. A Catalogue of Bright Clusters and Nebulae, Annals of Harvard College Observatory, Vol lX, No. VIII, 1908.
- Baity, Elizabeth Chesley: *Archaeoastronomy and Ethnoastronomy So Far*, Current Anthropology, Vol. 14., No. 4, Oct 73, pp. 389 - 431.
- Barbieri, Cesare and Rampazzi, Francesca [eds]. *Earth-Moon Relationships*, Proceedings of the Conference held in Padova, Italy at the Accademia Galileiana di Scienze Lettere ed Arti, November 8-10, 2000, Springer.
- Barentine, John. *The Lost constellations: A History of Obsolete, Extinct, or Forgotten Star Lore*, 2015.
- Barentine, John: *Uncharted Constellations*, IDA, Jan 2016, Springer, ISBN 978-3-319-27618-2
- Barns, Charles Edward. *1001 Celestial Wonders as Observed with Home-Built Instruments, Third Edition*, Morgan Hill, CA, 1931. https://babel.hathitrust.org/cgi/pt?id=uc1.$b527144&view=1up&seq=28
- Barton, Samuel. *A Guide to the Constellations*, 2007.
- Bayer, Johann. *Uranometria*. Johann Gorlin, 1655. https://searchworks.stanford.edu/view/11623727
- Beck, Roger. *A Brief History of Ancient Astrology*, Blackwell, 2007.
- Beck, Roger. *Mithraism*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1669.
- Belmonte, Juan Antonio and González-García, A. César. *Nemud Dag*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1659.
- Belmonte, Juan Antonio, *Ancient "Observatories"- A Relevant Concept?,* in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 133.
- Belmonte, Juan Antonio and González-García, A. César. *Petra and the Nabataeans*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1813.
- Belmonte, Juan Antonio. *Solar Alignments – Identification and Analysis*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 483.

- Benigni, Helen. The Goddess of the Eclipses, PDF https://www.academia.edu/59661958/The_Goddess_of_the_Eclipses .
- Bilić, Tomislav. *Solar Symbols of 'Horns of Consecration'?* in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX,, pg. 105.
- Bilić, Tomislav. *Some Northern Constellations used for Navigation in Antiquity*, Vjesnik Arheološkog muzeja u Zagrebu [VAMZ = Journal of the Zagreb Archaeological Myseum], Volume 39, Number 1, December 2006, pp. 15-58.
- Blagrave, John. *Astrolabium uranicum General*, 1596.
- Blomberg, Peter. *How did the constellation of the Bear receive its name?* in: Pásztor, Emilia (Editor). Archaeoastronomy in Archaeology and Ethnography, 2007, pp. 129-132.
- Blomberg, Peter. *On the origins of the modern star map*, Mediterranean Archaeology and Archaeometry, Volume 6, Issue 3, 2006, 193-200.
- Bode, Johann Elert. *Jahrbuch fūr das Jahr 1791*, Berlin 1788.
- Bode, Johann Elert. *Jahrbuch fūr das Jahr 1799*, Berlin 1796.
- Bode, Johann Elert. *Nachtrag zu Seiner Unleitung zur Renntnik des Gestrirnten Himmel*, 1818.
- Bode, Johann Elert. *Kurzgefasste Erlauterung der Sternfunde*, 1778.
- Bode, Johann Elert. *Vorstellung Der Gestirne*, Berlin, 1782.
- Bodnár, Szilvia. *Two Fragments of a Renaissance Bronze Zodiac Frieze*, Metropolitan Museum Journal, Volume 42, 2007, 95-105.
- Bradley, Richard. *Can archaeologists study prehistoric cosmology*? in: Andrén, Anders. et. al. (Editors). Old Norse religion in long term perspectives, 2006, pp. 16-20.
- Brady, Bernadette. *Images in the Heavens: A Cultural Landscape*, JRNSC, Equinox Publishing, 2013.
- Brady, Bernadette. *The Star of Bethlehem and Luke's Shepherds: An Exploration of the Astrological Features of the Two Nativity Stories*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 443.
- Brown, Daniel, Silva, Fabio, and Doran, Rosa. *Education: Archaeoastronomy and the Outdoor Classroom: Lessons from the Past*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 515.
- Brown, Daniel. *Empowering Sky Imagery*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 72.
- Brown, David. *The Interactions of Ancient Astral Science*, 2018.
- Brown, Robert. *On the Origin of the Ancient Northern Constellation Figures*, The Journal of the Royal Asiatic Society of Great Britain and Ireland, April 1897, pp. 205 – 226, Cambridge University Press.
- Brumbaugh, Robert. *The Voynich 'Roger Bacon' Cipher Manuscript: Deciphered Maps of Stars*, Journal of the Warburg and Courtauld Institutes, Volume 39, 1976, pp. 139-150.

- Bucur, Doina. *The network signature of constellation line figures*, PLoS ONE 17(7), 29 Jul 2022.
- Burnham, Robert Jr. *Burnham's Celestial Handbook: An Observer's Guide to the Universe, in Three Volumes*, Dover, NY, 1978.
- Burritt, Elijah. *Geography of the Heavens and Class Book of Astronomy*, Huntington & Savage, NY, 1849.
- Burritt, Elijah. *Southern Circumpolar Map for each Month in the Year,* 1835.
- Burritt, Elijah. *The Constellations for each Month in the Year,* 1835.
- Burritt, Elijah. *The Constellations for each Month in the Year,* 1859.
- Campion, Nicholas. *Astrology as Cultural Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 103.
- Campion, Nicholas. *The 2012 Phenomenon in Context: Millenarianism, New Age, and Cultural Astronomy*, in Šprajc, Ivan, and Pehani, Peter, eds. *Ancient Cosmologies and Modern Prophets,* Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 15.
- Carey, Moya. *The Gold and Silver Lining: Shams al-Dīn Muhammad B. Mu'ayyad al-'Urdī's Inlaid Celestial Globe (c. AD 1288) From the Ilkahnid Observatory at Marāgha*, Iran XLVII 2009, 97-108, the British Institute of Persian Studies.
- Čaval, Saša. *Church Orientations in Slovenia*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1719.
- Chamberlain, Von Del, et al, eds.: *Songs from the Sky: Indigenous Astronomical and Cosmological Traditions of the World*. 2005, Ocarina Books.
- Chartrand, Mark R. *National Audubon Society Field Guide to the Night Sky.* 1991, New York: Knopf.
- Clavius, Christopher. *In Sphaeram Ioannis de Sacro Bosco Commentarius*, 1572.
- Clerk, James. *The Right Ascensions and declinations of the principal fixed stars in both hemispheres to year 1678*.
- Coe, Steven, *Saguaro Astronomy Club Asterisms Database*, Version 3.2.
- Copernicus, Nicholaus. *De Revolutionibus Orbium Cœlestium*, Libri VI, Nuremberg, 1543. Octavo translation.
- Cornelius, Geoffrey and Paul Devereux. *The Secret Language of the Stars and Planets: A Visual Key to the Heavens*. 1996, San Francisco: Chronicle Books.
- Cotte, Michel. *Archeoastronomical Heritage and the World Heritage Convention*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 301.
- Crossley, Edward, Gledhill Joseph, and Wilson James M. *A Handbook of Double Stars with a Catalogue of Twelve Hundred Double Stars and Extensive Lists of Measures*, London, MacMillan & Co. 1879.
- Croswell, William, and Wightman, Thomas. *A Mercator map of the starry heavens" comprehending the whole equinoctial and terminated by the polar circles*, T. Wightman, Boston, 1810.
- Davis, John. Asterisms logbook sketches, 2006.
- De la Hire, Gabriel Phillipe. *Planisphere Celeste,* 1760.
- De Lacaille, Abbé Nicolas Louis. *Planisphère des Étoiles Ausralea,* 1756.
- De Wit, Frederik, *Planisphaerium Coeleste,* 1670.

- Dekker, Elly. *A Close Look at two Astrolabes and their Star Tables*, in Menso Folkerts and Richard Lorch, Sic itur ad astra. Studien zur Geschichte der Mathematik und Naturwissenschaften. Festschrift für der Arabisten Paul Kunitzsch zum 70. Geburtstag, (Wiesbaden 2000), pp. 177 - 215.
- Dekker, Elly. *A 'Watermark" of Eudoxan Astronomy*, JHA, XXXIX, 2008.
- Dekker, Elly. *Casper Vopel's Ventures in Sixteenth-Century Celestial Cartography*, Imago Mundi, Volume 62, Number 2, 2010, pp. 161-190.
- Dekker, Elly. *Construction and copy: aspects of the early history of celestial maps*, in: Dick, Wolfgang. and Hamel, Jürgen. [eds.], Acta Historica Astronomiae Vol. 58: Beiträge zur Astronomiegeschichte, Band 13, 2016, pp. 47-94.
- Dekker, Elly. *Early Explorations of the Southern Celestial Sky*, Annals of Science, 44 (1987), pp. 439 – 470.
- Dekker, Elly. *Featuring the First Greek Celestial Globe*, Globe Studies, No.55.56, 2008.
- Dekker, Ely, and Van Der Krogt, Peter. *Globes from the Western World*, Philip Wilson Publishers, Ltd., 1992.
- Dekker, Elly. *Illustrating the Phaenomena: Celestial Cartography in Antiquity and the Middle Ages*, 2013.
- Dekker, Elly. *On the Dispersal of Knowledge of the Southern Celestial Sky*, Journal for the Study of Globes and Related Instruments, No. 35 – 37, Wein, 1987.
- Dekker, Elly. *Precession Globes*, Olschki, Leo (ed.), Frienze, 2003.
- Dekker, Elly. *The Nuremberg maps: a Pythagorean-Platonic view of the cosmos*, in: Dick, Wolfgang. and Hamel, Jürgen. [eds.], Acta Historica Astronomiae Vol. 58: Beiträge zur Astronomiegeschichte, Band 13, 2016, pp. 95-124.
- Dekker, Elly. *The Provenance of the Stars in the Leiden Aratea Picture Book*, Journal of the Warburg and Courtauld Institutes, Vol. LXXIII
- Dekker, Elly. 'with his sharp lok perseth the sonne': A new quadrant from Canterbury, Annals of Science, Vol. 65, No. 2, April 2008, pp. 201 – 220.
- Dekker, Elly, and Lippincott, Kirsten. The Scientific Instruments in Holbein's Ambassadors: A Re-Examination, Journal of the Warburg and Courtauld Institutes, Vol LXII, 1999.
- Dekker, Elly, Meurer Peter H., and Satterley, Renae. *Zwei Himmelskarten nach Dürer bei Johannes Noviomagus* (Köln 1537), Cartographica Helvetica, Heft 42, 2010.
- Dement'ev, Mikhail. *New interpretation of the ancient constellations*, in: JENAM-97, 6th Joint European and National Astronomical Meeting (JENAM 97) and 3rd Conference of the Hellenic Astronomical Society: New Trends in Astronomy and Astrophysics 2-5 Jul 1997. Thessaloniki, Greece, pg. 330.
- Denning, William. F. *Telescopic Work for Starlight Evenings*, London, Taylor and Francis, 1891.
- Devevey, Frédéric. and Rousseau, Aurélie. *The Astral Curved Disc of Chevroches (France)*, in: Rubiño-Martín, José Alberto. et. al. (Editors). Cosmology Across Cultures. ASP Conference Series, Volume 409, 2009, pp. 172-176.
- Devlet, E. *Astronomical objects in rock art*, Astronomical and Astrophysical Transactions, Volume 17, Number 6, 1999, pp. 475-482.
- Dexter, Miriam Robbins. *Whence the Goddesses: A Source Book*. New York: 1990, Teachers College Press.

- Dimitrijevic, Milan, and Bajić, Aleksandra. *Mythological Origin of Constellations and Their Description: Aratus, Pseudo-Eratosthenes, Hyginus*, L. Č Popović, V.A. Srećković, M.S. Dimitrijević, A. Kovačević,[ eds.] Proceedings of the XII Serbian-Bulgarian Astronomical Conference (XII SBAC), Sokobanja, Serbia, Sep. 25 – 29, 2020, pp. 129 -138.
- Doppelmayr, Johann Gabriel. *Atlas Coelestis*, 1742
- Dow, Sterling and Robert F. Healey. *A Sacred Calendar of Eleusis*: 1965, Harvard Theological Studies XXI. Cambridge: Harvard Univ. Press.
- Dreyer, J.L.E. *A New General Catalogue of Nebulae and Clusters of Stars, being the Catalogue of the late Sir John F. W. Herschel, Bart., revised, corrected, and enlarged*, Royal Astronomical Society, Vol XLIX, Part 1, 1888
- Dreyer, J.L.E. *Index Catalogue of Nebulae found in the Years 1888 to 1894, with Notes and Corrections to the New General Catalogue*, Royal Astronomical Society, 1895.
- Dreyer, J.L.E. *Second Index Catalogue of Nebulae and Clusters of stars, containing objects found in the Years 1895 to 1907, with Notes and Corrections to the New General Catalogue for 1888-94*, Royal Astronomical Society, 1908.
- Duits, Rembrandt. *Celestial Transmissions. An Iconographical Classification of Constellation Cycles in Manuscripts (8th-15th Centuries),* Scriptorium, Volume 59, 2005, pp. 147-202.
- Duits, Rembrandt. And Quiviger, François [eds.]. *Images of the Pagan Gods: Papers of a Conference in Memory of Jean Seznec*, 2009.
- Duits, Rembrandt. *Reading the Stars of the Renaissance. Fritz Saxl and Astrology*, Journal of Art Histography, Number 5, December 2011.
- Duits, Rembrandt. *The Survival of the Pagan Sky: Illustrated Constellation Cycles in Manuscripts*, in: Duits, Rembrandt. and Quiviger, François. [eds.], Images of the Pagan Gods, 2009, pp. 97-128.
- Duke, Dennis. *The Measurement Method of the Almagest Stars*, 2002.
- Dūrer, Albrecht, Heinfogel, Conrad and Stabius *imagines coeli septentrionales cum duodecint imaginibus zodiaci* ("images of the northern sky with twelve images of the zodiac"), 1515.
- Dūrer, Albrecht, Heinfogel, Conrad and Stabius, *Southern Celestial Hemisphere* chart, 1515.
- Eliade, Mircea. *The Myth of the Eternal Return*. Princeton, N.J.: Princeton Univ. Press, 1974.
- Ellis, Peter Berresford. *Dictionary of Celtic Mythology*. New York: Oxford Univ. Press, 1992.
- Elwe, Jan Barent, and Backer, Remmet Teunisse. *Door dit hemels pleyn wert vertoondt den gehelen loop del helmels der vaste sterren met haer beeltenisse*, Amsterdam, 1792.
- Embach, Carolyn (trans). *On the Nature of Things (De Natura Rerum), by Isidore of Seville (ca 560 – 636 AD),* 1969.
- Engledew, John. *Star Names in Western Astronomy*, Journal of the British Astronomical Association, Volume 92, Issue 1, December 1981, pg. 47 (Letters to the Editor)).
- Esteban, César. *Iberian Sanctuaries*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1163.
- Esteban, César and Belmonte, Juan Antonio, Editors: *Oxford VI and SEAC 99: Astronomy and Cultural Diversity*, Proceedings of the International Conference Oxford VI and SEAC 99, Museo de la Ciencia y el Cosmos, La Laguna, 1999.
- Evans, James. *Constellations and named stars*, in: Bagnall, Roger. et. al. (eds.). *The Encyclopedia of Ancient History*, 2012, Vol 1. [Note: A multi-volume work. The article is likely in Volume 1.]

- Evans, Michael. *Achieving continuity: a story of stellar magnitude*, Studies in History and Philosophy of Science Part A, Volume 41, Issue 1, March 2010, pp. 86-94.
- Feeney-Beaton, Morag Helen. *Weaving as a Cosmic Instrument: A Sublimation of the Vertical and Horizontal*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 75.
- Fischer, Gordon, Graßhoff, Michel, Christina, and Schier, Wolfram. *Constructed Knowledge? New Insights on Visual Characteristics of Middle Neolithic Roundels*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 24.
- Fisher, Victor B. *Presentation of Archaeoastronomy in Introductions to Archaeology*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 251.
- Flamsteed, John. *Atlas Coelestis*, 1729.
- Flamsteed, John. *Atlas Céleste, Seconde Édition*, 1776.
- Flanders, David [Tony]. *Star Names. From Alcor to Zubeneschamali, every star's name tells a fascinating story*, Night Sky, May/June, Volume 2, Number 3, 2005, Pages 54-60.
- Frank, Roslyn M. *Skylore of the Indigenous Peoples of Northern Eurasia*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1679.
- Frank, Roslyn M., Iwaniszewski, Stanislaw, Malville, Kim, López, Alejandro Martin, and Silva, Fabio. *Round Table: The Ontological Turn in Anthropology and Archaeology and Its Importance for Cultural Astronomy*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 180.
- Franknoi, Andrew. *The Astronomy of Many Cultures: A Resource Guide* (Version 5.1; July 2020), Fromm Institute at the University of San Francisco.
- Gallucci, Giovanni Paolo. *Theatrum Mundi, et Temporis,* 1588.
- Gantz, Jeffrey. Translation. *The Mabinogion*. 1976, New York: Penguin, 1976.
- *Germanicus Aratea* with scholia Strozziana (with Hyginus, De Astronmia, q.v.),c. 1475, Biblioteca Laurenziana, Florence.
- Germanicus, Aratea (Siciliensis), 1469, Naples, Pierpont Morgan Library, New York.
- Gimbutas, Marija. 1996,*The Goddesses and Gods of Old Europe: Myths and Cult Images*. Berkeley: Univ. of California Press.
- Glauthier, Patrick. *Repurposing the Stars: Manilius, Astronomica 1, and the Aratean Tradition*, American Journal of Philology, Volume 138, Number 2, (Whole Number 550), Summer 2017, Pages 267-303.
- Gonzáles-Garcia, A. César. *Lunar Alignments – Identification and Analysis*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 493.
- González-García, A César, and Belmonte, Juan Antonio. *Lunar Standstills or Lunastices: A Lunatic Myth or a Moonly Reality?,* in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 67.
- Gottlieb-Roberts, Marilyn. *Rembrandt and the Telescope*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep.

1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 210.

- Graff, Eric. *The Thirteenth Figure in the Munich Computus Zodiac*, Journal of the History of Astronomy, Volume XXXVI, 2005, pp. 321-334.
- Grant, Robert. *History of Physical Astronomy from the Earliest Ages to the Middle of the Nineteenth Century*, Robert Baldwin, London, 1852.
- Graves, Robert. *The Greek Myths.* 2 Vols. 1960, New York: Penguin.
- Greenbaum, Dorian Geiseler. *Astronomy, Astrology, and Medicine*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 115.
- Grotius, Hugo. *Syntagma Arateorum Opus Poeticae et Astronomiae,* Leiden 1600.
- Guidetti, Fabio. *A Sky without Myths? Pagan Imagery in Early Medieval Astronomy*, Sensus. Studien zur Mittelaterlichen Kunst, Band 10, 2018, pp. 57-80.
- Gullberg, Steven R. and Munro, Andrew M. *A Cultural Comparison of Dark Sky Constellations*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 163.
- Gullberg, Steven R., Hamacher, Duane W., Martin-Lopez, Alejandro, Mejuto, Javier, Munro, Andrew M., Orchiston, Wayne, Donakeuw, T. and Maerim, A. *A Cultural Comparison of the 'Dark Constellations' in the Milky Way,* Journal of Astronomical History and Heritage, 2020, 23 (2), 390 – 404
- Habrecht, Isaac. *Planiglobium celeste universal*, 1628.
- Hadingham, Evan: *Early Man and the Cosmos*. 1984, Walker & Co.
- Harley, John. and Woodward, David.[eds.], *The History of Cartography*, Volume 1, 1987.
- Heinfogel, Conrad, *Nuremburg Maps*, 1503
- Henriksson, Göran. *A Solar Eclipse in 700 B.C. Observed in Jerusalem and Southern Sweden*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 457.
- Henriksson, Göran. *Megalithic Total Solar Eclipses*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 33.
- Herlihy, Anna Friedman. *Renaissance Star Charts*, The History of Renaissance Cartography: Interpretive Essays, HOC Vol 3, Part 1, Ch. 4.
- Herschel, William. *Catalogue of 500 New Nebulae, nebulous stars, planetary Nabulae, and Clusters of Stars; with Remarks on the Construction of the Heavens*, 1802.
- Hevelius, Johannes. Prodromus Astronomiae (includes the *Catalogus Stellarum Fixarum),* 1690.
- Hoffman, Susanne. *History of Constellations as Popularization of Uranometry*, In: Popularisierung der Astronomie. Proceedings der Tagung des Arbeitskreises Astronomiegeschichte in der Astronomischen Gesellschaft in Bochum 2016. Hamburg: tredition 2017, pp. 135-157.
- Holdberg, Jay B. *Sirius: Brightest Diamond in the Night Sky*, Praxis Publishing, 2007.
- Holbrook, Jarita C. *How Odd is Odd? Studying Astronomers*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 529.

- Holbrook, Jarita. *Indigenous Astronomy and its Heritage,* Astronomy and World Heritage: Across Time and Continents, UN Educational, Scientific, and Cultural Organization, pg. 56.
- Hondius, Jodocus (Joost de Hondt). *Hemelglobe,* 1600.
- Hoskin, Michael. *Patterns of Orientation in the Megalithic Tombs of the Western Mediterranean*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1135.
- Hoskin, Michael. *Taula Sanctuaries of Menorca*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1169.
- Hourihane, Colum. et al. [eds.]. *Illustrated Astronomical Texts*, in: The Grove Encyclopedia of Medieval Art and Architecture, Volume 2, 2012, pp. 182-184.
- Hues, Robert. *A Learned Treatise of Globes: Both Coelestial and Terestriall, with their several uses*, Chilmead, John (ed.), Andrew Kemb, 1629.
- Hunger, Hermann. *Celestial Regularity as a Basis of Time-Reckoning*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 18.
- Hyginus, Gaius Julius. *De Astronomica* (*Poeticon Astronomicon*), Rathold, Erhard, 1482.
- Illingworth, Valerie, ed. *The Facts on File Dictionary of Astronomy, 2nd edition*, 1985.
- Iwaniszewski, Stanislaw. *Astrotourism in Archaeoastronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 287.
- Iwaniszewski, Stanislaw. Concepts of Space, Time, and the Cosmos, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 3.
- Iwaniszewski, Stanislaw. *Cultural Interpretation of Archaeological Evidence Relating to Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 315.
- Iwaniszewski, Stanislaw. *TRB megalithic Tombs and Long Barrows in Central Europe*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1299.
- Jamieson, Alexander. *Stereographic Projection of the Northern Celestial Planisphere of the Plane of the Equinoctial,* 1822.
- Jones, Prudence. *Northern Myths of the Constellations*, 1991.
- Kale, Jadran. *Sky as the Cultural Landscape*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 190.
- Kanas, Nick. *Star Maps: History, Artistry, and Cartography*, 2007.
- Kaul, Flemming. *Bronze Age tripartite cosmologies*, Prähistorische Zeitschrift, Volume 80, Issue 2, November, 2005, 135-148.
- Kaunov, E. *Sky luminaires in the space orienting activity of homo sapiens in the middle palaeolithic*, Astronomical and Astrophysical Transactions, Volume 17, Issue 6, 1999, pp. 459-473.
- Kelley, David & Milone, Eugene *Exploring Ancient Skies: A Survey of Ancient and Cultural Astronomy*, 2nd ed. 2011, Springer.
- Kemp, C., Hamacher, D., Little, D., Cropper, S. *Perceptual Grouping Explains Similarities in Constellations Across Cultures*, Psychological Science, pg. 1 -10, Association for Psychological Science, 1011.
- Kepler, Johannes. *Stella Nova in Pede Serpentarii*, 1606.

- Kieneswenger, Klaus. *Production of Star Charts for Stars down to a visual magnitude of 4.5 from present time back to the year -20000 and their implications in Ethnoastronomy*, Master's Thesis, Vienna, 2016.
- King, David A. *An astrolabe from 14th-century Christian Spain with inscriptions in Latin, Hebrew, and Arabic: A unique testimonial to an intercultural encounter*, Suhayl 3, 2002-03.
- Klein, Herman J. *Star Atlas: Containing maps of all the stars from 1 to 6.5 magnitude between the North Pole and 34° South declination, and of all Nebulae and Star Clusters in the same region which are visible in telescopes of moderate powers*, McClure, Edmond (trans), Society for Promoting Christian Knowledge, 1893.
- Knobel, E. B. *On Frederick de Houtman's catalogue of southern stars, and the origin of southern constellations*, London, 1917.
- Kolev, Dimiter. *Folk Calendars in the Balkan Region*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1767.
- Koleva, Vesselina and Koleva, Svetlana. *Wooden Calendar Sticks in Eastern Europe*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1773.
- Kristiansen, Kristian. and Larsson, Thomas. *The Rise of Bronze Age Society: Travels, Transmissions and Transformations*, 2005.
- Krupp, Edwin C. *Archeoastronomical Concepts of Popular Culture*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 263.
- Krupp, Edwin C. *Astronomy and Power*, Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 67.
- Krupp, Edwin: *Beyond the Blue Horizon: Myths and Legends of the Sun, Moon, Stars, and Planets*. 1991, HarperCollins.
- Krupp, Edwin: *Echoes of the Ancient Skies: The Astronomy of Lost Civilizations*. 1983, Harper & Row.
- Krupp, Ed. *Private Constellations*, Sky and Telescope, April 2007, Pages 47-48.
- Krupp, Edwin: *Skywatchers, Shamans, & Kings: Astronomy and the Archaeology of Power*. 1997, J. Wiley.
- Krupp, Ed. Night Gallery: *The Function, Origin, and Evolution of Constellations*, Archaeoastronomy: The Journal of Astronomy in Culture, Volume XV, 2000, pp. 43-63.
- Kunitzsch, Paul. and Smart, Tim. *A Dictionary of Modern Star Names*, 2006.
- Kunitzsch, Paul. and Smart. Tim. *Short Guide to Modern Star Names and Their Derivations*, 1986.
- Kunitzsch, Paul. *Star Names*, in: Lankford, John. [ed.], History of Astronomy: An Encyclopedia, 1997, pp. 489-490.
- Kunitzsch, Paul. *Star Names*, in: Lankford, John. (Editor). History of Astronomy, 1997, pp. 489-490.
- Kunitzsch, Paul. *Star Names in Western Astronomy*, Journal of the British Astronomical Association, Volume 92, 1981, pg. 47.
- Kunitzsch, Paul. *The Star Catalogue Commonly Appended to the Alfonsine Tables*, Journal for the History of Astronomy, Vo. 17, No. 49, May 1986, pg. 89.
- Kuzmin, A. *The celestial map: The symbolism of historical eras and reflection of the world model*, Astronomical and Astrophysical Transactions, Volume 20, Issue 6, December 2001, pp. 1045-1064.
- Latura, George, and Rothwangi, Sepp. *In Harmony with the Cosmos: Of Calendars and Priests*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities*

*Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 198

- Latura, George. *Planetary Harmonies & Celestial Symmetries*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 21.
- Laužikas, Rimvydas. *Church Orientations in Central and Eastern Europe*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1727.
- Lebeuf, Arnold. *The Alphabet and the Sky*, in: Corsini, Enrico. [ed.], The Inspiration of Astronomical Phenomena VI, 2011, pp. 181-195.
- Le Boeuffle, André. *Astronymie, les noms des étoiles*, 2004.
- Leimlehner, Astrid B. *Solar Returns: From Observing the Sky to Observing Birthdays*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 96.
- Lemcool, Ivana. *Developments and Trends in the History of Astrology and their Impact on the Popularisation of the Zodiac Motif in Visual Cultures of the Ancient World*, Arheologijai Prirodne Nauke/Archaeology and Science, Number 13, 2017, pp. 109-128).
- Lippincott, Kristen. *Exploring Differing Notions of Scholarship in the Eleventh Century: the Two Earliest Extant Illustrated Manuscripts of Hyginus's De Aastronomia*, Notes in the History of Art, Spring/Summer, Volume 23, Issue 3/4, 2014, pp. 11-18.
- Lippincott, Kristen. *Hyginus, Michael Scot and the Tyranny of Technology in the Early Renaissance*, in: Pontani, Filippomaria. [ed.], Certissima signa. A Venice Conference on Greek and Latin Astronomical Texts, 2017, pp. 213-264.
- Lloyd, G. *The Varying Agenda of the Study of the Heavens: Mesopotamia, Greece, China*, in: Nylan, Michael. [ed.], Star Gazing, Fire Phasing, and Healing in China: Essays in Honor of Nathan Sivin (Asia Major, Third Series, Volume 21, Part 1, June 2008, pp. 69-88).
- López, Alejandro Martín. *Cultural Interpretation of Ethnographic Evidence Relating to Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 341.
- López, Alejandro Martín. *Interactions Between "Indigenous" and "Colonial" Astronomies: Adaption of Indigenous Astronomies in the Modern World,* in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 197.
- López, Alejandro Martín. *Milky Way Astronomies: Proposing a Framework for Cultural Comparison*, Journal of Skyscape Astronomy, August 2022.
- Lotter, Tobias Conrad. *Planisphaerium Coeleste*, 1750.
- Mann, Neil. *George Yeats and Athanasius Kircher*, Yeats Annual 16, Gould, W. [ed.], Palgrave Macmillan, 2005, pp. 163-193.
- Martins, Roberto de Andrade. *The Cultural Relevance of Astronomy in Classical Antiquity*, in *Studies in History and Philosophy of Science II*, Extrema: Quamcumque Editum, 2021.
- McCluskey, Stephen C. *Analyzing Light-and-Shadow Interactions*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 427.
- McCluskey, Stephen C. *Cultural Interpretation of Historical Evidence Relating to Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 325.

- McCluskey, Stephen C. *Disciplinary Perspectives on Archaeoastronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 227.
- McCluskey, Stephen C. *Orientation of Christian Churches,* in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1703.
- McEwan, Dorothea. *Saxl and Boll*, Journal of Art Histography, Number 5, December 2011.
- McKay, Helen. *Identifying the Asterisms of Gregory of Tours*, 2020.
- Miller, Roy. *Pleiades Perceived: Mul.Mul to Subaru*, Journal of the American Oriental Society, Volume 108, 1988, pp. 1-25.
- Missinne, Stefaan. *The Solving of a Mystery: A Silver and Gold-gilt Celestial Globe Cup from a Catholic English Monarch in Exile*! The Portolan, Issue 83, Spring 2012, pp. 52-56.
- Moesgaard, Kristtan, and Kristensen, Leif. *The Bright Stars of the Zodiac, a Catalogue for Historical Use*, Centaurus, Volume 20, Issue 2, June 1976, Pages 129-158.
- Moore, Patrick. *Stars of the Southern Skies: An Observer's Guide for New Zealand*, David Bateman, Ltd., 1994.
- Mostert, Richard. and Mostert, Marco*. Using astronomy as an aid to dating manuscripts. The example of the Leiden Aratea manuscript*, Quaerendo, Volume 20, 1999, pp. 248-261
- Murray, William Breen. *Astronomy and Rock Art Studies*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 239.
- Norton, Arthur P. *A Star Atlas and Telescopic Handbook*, Gall and Inglis, London, 1910.
- Norton, Arthur P, and Inglis, J. Gall. *A Star Atlas and Reference Handbook for Students and Amateurs,* Sky Publishing, Cambridge, MA, 14th edition, 1959.
- Nothaft, C. Phillip E. *Astronomical Shoptalk in Paris ca 1246: An Edition and Translation of John of London's Letter to R. De Guedinge*, Trinity College Dublin 2022.
- Noviomagus, Johannes, *Kölner Almagest-Teilusgabe* , 1537.
- Obridko, V., et al. *Astronomy of Ancient Civilizations, Astronomical and Astrophysical Transactions*, Volume 21, Numbers 4-6, 2002, pp. 279-291.
- Oestmann, Günther. *Johannes Stoeffler's Celestial Globe*, Der Globusfreund: Wissenschaftliche Zeitscrift für Globen und Instrumentenkunde, 43/44, 1995, S. 59-70.
- O'Neil, William. *Early Astronomy: from Babylonia to Copernicus*, 1986.
- Pannekoek, A. *A History of Astronomy*, 1961, Dover, N.Y.
- Pásztor, Emilia. *Celestial Symbolism of the Vučedol Culture*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1327..
- Pásztor, Emilia. *Celestial Symbolism in Central European Later Prehistory – Case Studies from the Bronze Age Carpathian Basin*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1337.
- Pásztor, Emilia, Barna, Judit B., and Zotti, Georg. *Neolithic Circular Ditch Systems ("Rondels") in Central Europe*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1317.
- Pásztor, Emilia and Barna, Judit B. *Neolithic Longhouses and Bronze Age Houses in Central Europe*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1307.
- Pendergast, Frank. *Techniques of Field Survey*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 389.
- Pendergraft, Mary. *Euphony and Etymology: Aratus' Phainomena*, Syllecta Classica, Volume 6, 1995, pp. 43-67.

- Penprase, Bryan: *The Power of the Stars: How Celestial Observations Have Shaped Civilization*, 2nd ed. 2017, Springer.
- Perkins, Deborah Kala. *The Universe Isn't Silent: Electroacoustic Ensembles with Life 2.0*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 203.
- Piazzi, Guiseppe. *Della Specola Astronomica De Regj Studj di Palermo*, 1792.
- Pimenta, Fernando, *Astronomy and Navigation*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 43.
- Pitluga: Phyllis Burton: *Cultural Concepts of the Milky Way*, Adler Planetarium and Astronomy Museum, Chicago, USA
- Pimenta, F., Ribeiro, N., Silva, F., Campion, N., Joaquinito, A., Tirapicos, L., editors, *SEAC 2011 Stars and Stones: Voyages in Archaeoastronomy and Cultural Astronomy*, 2015.
- Pimenta, Fernando and Tirapicos, Luís. *Megalithic Cromlechs of Iberia*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1153.
- Polcaro, Andrea. *Astronomy in the Levant During the Bronze Age and Iron Age*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1801.
- Polcaro, Vito Francesco. *"Great Year", "Hamlet's Mill", and the "2012 Maya Prophecy", the Charm of Cyclical Time*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 33.
- Possanza, D. M. *Translating the Heavens. Aratus, Germanicus, and the Poetics of Latin Translation*, 2004.
- Powell, Robert. *History of the Zodiac*, 2007.
- Quintella, Marco V. and Santos-Estévez, Manuel. *Astronomical Symbolism in Bronze-Age and Iron-Age Rock Art,* in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1213.
- Raposo-Pulido, V., Cerdeño Serrano, M. L, Rodriguez Caderot, M. G., Baquedano Beltán, M. I., and Mejuto, J. *Building a Robust Methodology in Archaeoastronomy*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 208.
- Rappenglück, Barbara. *Myths and Motifs as Reflections of Prehistoric Cosmic Events: Some Methodological Considerations*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 67.
- Rappenglück, Michael A. *A Catchy World Model: The Concept(s) of Cosmic Mountain(s) Used by Ancient Cultures,* in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 69.
- Rappenglück, Michael A. *Palaeolithic Stargazers and Today's Astro Maniacs – Methodological Concepts of Cultural Astronomy Focused on Case Studies of Earlier Prehistory*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th

Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 85.

- Rappenglück, Michael A. *Palaeolithic Timekeepers Looking at the Golden Gate of the Ecliptic; The Lunar Cycle and the Pleiades,* Barbieri, Cesare and Rampazzi, Francesca [eds]. *Earth-Moon Relationships*, Proceedings of the Conference held in Padova, Italy at the Accademia Galileiana di Scienze Lettere ed Arti, November 8-10, 2000, Springer, Pp. 391 - 404.
- Rappenglück, Michael A. *Possible Calendrical Inscriptions on Paleolithic Artifacts*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1197.
- Rappenglück, Michael A. *Possible Astronomical Depictions in Franco-Cantabrian Paleolithic Rock Art*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1205.
- Rappenglück, Michael. *The Milky Way: Its concept, function and meaning in ancient cultures*, in: Potyomkina, T. M. and Obridko, V. N. (Editors-in-Chief). Astronomy in Ancient Societies, 2002, pp. 270-279.
- Rappengluck, Michael. *Tracing the Celestial Deer - An Ancient Motif and Its Astronomical Interpretation Across Cultures*, Archaeologia Baltica, Volume 10, 2008, pp. 62-65.
- Rappenglück, Michael A., *Voyages Guided by the Skies: Ancient Concepts of Exploring and Domesticating Time and Space Across Cultures*, 2015.
- Rey, H. A.: The Stars: A New Way to See Them.
- Ridpath, Ian. *The Origin of Our Constellations*, Mercury, Volume 19, Number 6, November/December, 1990,pp. 163-171.
- Rogers, J. H. *Origins of the Ancient Constellations: II The Mediterranean Traditions*, Journal of the British Astronomical Association, 1998, Vol. 108, no.2, p. 79 – 89.
- Ruggles, Clive L. N. *Analyzing Orientations*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 411.
- Ruggles, Clive: *Ancient Astronomy: An Encyclopedia of Cosmologies and Myth*. 2005, ABC-Clio.
- Ruggles, Clive & Saunders, Nicholas, eds. *Astronomies and Cultures*. 1993, University Press of Colorado.
- Ruggles, Clive L. N. *Basic Concepts of Positional Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 459.
- Ruggles, Clive L. N. *Best Practice for Evaluating the Astronomical Significance of Archaeological Sites*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 373.
- Ruggles, Clive L.N. *Calendars and Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015.pg 15.
- Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015.
- Ruggles, Clive L. N. *Long-Term Changes in the Appearance of the Sky*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 473.
- Ruggles, Clive L. N. *Nature and Analysis of Material Evidence Relevant to Archaeoastronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 353.
- Ruggles, Clive L. N. Recumbent Stone Circles, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1277.

- Ruggles, Clive L. N. Stellar *Alignments – Identification and Analysis*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 517.
- Saletta, Morgan. *The archaeoastronomy of the megalithic monuments of Arles–Fontvieille: the equinox, the Pleiades and Orion*, in: Ruggles, Clive. [ed.], Archaeoastronomy and Ethnoastronomy: Building Bridges between Cultures, 2011, pp.364-373.
- Santoni, Anna. *De signis coeli and De ordine ac positione stellarum in signis: Two Star Catalogues from the Carolingian Age*, Pontani, Filippomaria (ed.), Certissima signa: A Venice Conference on Greek and Astronomical Texts, 2017.
- Schaefer, Bradley E.: *Date and Place of Origin of the Asian Lunar Lodge Systems*, Yale University, Astronomy Department and Physics Department, 260 Whitney Avenue, New Haven CT 0651 1, USA.
- Schamberger, Johann. *Die Ziqpu-Gestirne nach neuen Keilschrifttexten*, Zeitschrift für Assyriologie und vorderasiatische Archäologie, Band 50 [= Neue Folge, 16], 1952, Pages 214-229.
- Selin, Helaine, ed.: *Astronomy Across Cultures: The History of Non-western Astronomy*. 2000, Kluwer.
- Seller, John. *A coelestiall planisphere*, 1678.
- Senex, John. 1721/22 planispheres
- Serviss, Garrett P. *Astronomy With an Opera Glass: A Popular Introduction to the Study of the Starry Heavens with the Simplest of Optical Instrum*ents, D. Appleton & Co., NY, 1890.
- Silva, Fabio, and González-García, A César. *A Robust Statistical Significance Test for the Orientation of Archaeological Structures,* in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 109.
- Silva, Fabio, and Frank, Roslyn M. *Deconstructing the Neolithic Myth: The Implications of Continuity for European Late Prehistory*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 223.
- Silva, Fabio, González-García, Reijis, Victor, Pimenta, Fernando, Smith, Andrew. *Introducing skyscapeR, and Open-Source R Package for Data Reduction, Visualization, and Analysis in Cultural Astronomy*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 58.
- Simonia, Irakli and Jijelava, Badri. *Astronomy in the Ancient Caucasus*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1443.
- Simonia, Irakli, Jijelava, Badri, Gigauri, G. and Houston, Gordon. *Observational and Cult Sites in Pre-Christian Georgia*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1461.
- Sims, Lionel. *Monuments as Myth or Myths and Monuments?* in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 237.
- Sims, Lionel. *"Th'inconstant Moon": Lunar Celestial Mechanics as a Template for Ritual Transformations*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry:*

*Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 64.

- Smyth, William Henry. *A Cycle of Celestial Objects, for the Use of Naval, Military, and Private Astronomers, Vol 1 (Prolegomena) & Vol 2 (The Bedford Catalogue),* John W. Parker, London, 1844.
- Šprajc, Ivan. *Alignments Upon Venus (and Other Planets) – Identification and Analysis*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 507.
- Šprajc, Ivan, and Pehani, Peter, eds. *Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture*, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX.
- Squier, Ted. *The Sailor's Zodiac*, Cruising World, Jan-May 1980, pp. 54-62.
- Staal, Julius D.W. *The New Patterns in the Sky: Myths and Legends of the Stars*. 1988, Blacksburg,Va.: McDonald and Woodward
- Steele, Joel Dorman. Popular Astronomy: Being the New Descriptive Astronomy, NY, 1884.
- Steele, John M. *Astronomy and Politics*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 93.
- Stevenson, Edward Luther. *Terrestrial and Celestial Globes: Their History and Construction Including a Consideration of Their Value as Aids in the Study of Geography and Astronomy*. New Haven, Yale University Press, 1921.
- Strano, Giorgio. *A New Approach to the Star Data of Early Planispheric Astrolabes*, Medieval Encounters, Volume 23, 2017, pp. 444-467.
- Taub, Liba. *Where Did Astronomy 'Sit' in Ancient Greek and Roman Culture?* in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 11.
- Thuillard, Marc. *Statistical Information – Theoretical Analysis of the Motifs on Bronze Age Golden Hats*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 48.
- Toomer, Gerald. *Constellations and Named Stars*, in: Hornblower, Simon. and Spawforth Antony [eds.], The Classical Oxford Dictionary, Third edition, 1996, pp.381-383.
- Toscanelli, Paolo dal Pozzo. *De la Sfera Del Mondo, Dele Stelle Fisse*, Venice, 1542.
- Trevelyan, Marie. *Folk-Lore and Folk-Stories of Wales*, Elliot Stock, London, 1909.
- Upton, Winslow. *Star Atlas Containing Stars Visible to the Naked Eye and Clusters, Nebulae, and Double Stars Visible in Small Telescopes*, Ginn & Co., Boston, 1896.
- Van der Waerden, B. L. *A History of the Zodiac*, Archiv für Orientforschung, Vol. 16, 1953, pp. 27 – 64.
- Van Keulen, Gerard Hulst. *Planishpaerum Colestum.* 1798.
- Ventura, Frank, and Hoskin, Michael. *Temples of Malta*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1421.
- Verbunt, F, and van Gent, R. H. Early Star Catalogues of the Southern Sky: De Houtman, Kepler (Second and Third Classes), and Halley. Astronomy and Astrophysics, April 7, 2011.
- Verbunt, F, and van Gent, R. H. *The Star Catalogue of Hevelius*, Astronomy and Astrophysics, 516, A29, 2010.

- Verbunt, F, and van Gent, R. H. *The star catalogues of Ptolemaios and Ulugh Beg*, Astronomy and Astrophysics, Dec 22., 2013.
- Verbunt, F, and van Gent, R. H. *Three Editions of the star catalogue of Tycho Brahe: Machine-readable versions and comparisons with the modern Hipparcos Catalogue*, Astronomy and Astrophysics, 516, ESO 2010.
- Von Dechend, Herta. *The Planets in Archaic Cosmology*, 1975.
- Wagman, Morton. *Flamsteed's Missing Stars*, Journal for the History of Astronomy, Volume 18, 1987, pp. 209-233.
- Walker, Christopher, ed.: *Astronomy Before the Telescope.* 1996, St. Martin's Press.
- Williamson, Ray & Farrer, Claire, eds. Earth and Sky: Visions of the Cosmos in Native American Folklore. 1992, University of New Mexico Press.
- Wokke, Astrid. *Astronomy in the Bronze Age: The Ring Patterns on the Woman's Belt Plates Astronomically/Geometrically Analyzed*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 220.
- Wright, Thomas. *Popular Treatises on Science Written During the Middle Ages in Anglo-Saxon, Anglo-Norman, and English*, R. & J. E. Taylor, London, 1841.
- Unknown. *Urania's Mirror or a View of the Heavens*, Samuel Leigh, London, 1852.
- Zanin, C, and Weinberger R. *The "Criss-Cross" Nebula": and interaction of the Orion-Eridanus Bubble with a small interstellar cloud*, Astronomy and Physics, 324, 1165-1169, 1997.
- Zotti, Georg. *A Virtual Park of Astronomical Instruments*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 60.
- Zotti, Georg. *Visualization Tools and Techniques*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 445.

Online:

- *Adventures in Deep Space*, DSO Index: https://adventuresindeepspace.com/dsf_ootw_constellation.html
- *Amateur Astro Photo of the Day 2:* https://www.aapod2.com/
- *An Introduction to Archaeoastronomy* (Clive Ruggles' 2003 Introductory Course Notes and Images at the University of Leicester): http://www.le.ac.uk/archaeology/rug/aa/a3015/index.html
- *Ancient Observatories, Timeless Knowledge from the Stanford Solar Center* (An introduction to ancient sites where the movements of celestial objects were tracked over the years, with a special focus on tracking the Sun.): http://solar-center.stanford.edu/AO/
- Apianus, Petrus. *Astronomicum Caesarium* (1540) https://archive.org/details/astronomicumcsar00apia/mode/2up
- Archaeological sites around the world that have a connection to astronomy: https://en.wikipedia.org/wiki/List_of_archaeoastronomical_sites_by_country
- Asterisms List, University of Northern Iowa: https://sites.uni.edu/morgans/astro/asterisms.html
- *Astrobin*: https://app.astrobin.com/

- *Astronomy Before History* by Clive Ruggles and Michael Hoskin (from the Cambridge Concise History of Astronomy) -- pdf introduction to ancient astronomy (starts on PDF page 15): http://assets.cambridge.org/052157/2916/sample/0521572916web.pdf
- Cellarius, Andreas. Harmonia Macrocosmica, 1661, https://catalog.lindahall.org/discovery/delivery/01LINDAHALL_INST:LHL/1286503320005961?lang=en
- Cropper, Simon. Why People Across the World see Constellations, not Just Stars. https://psyche.co/ideas/why-people-across-the-world-see-constellations-not-just-stars
- *Cultural Astronomy Web Exhibit* (Modules and resources on many cultures that have an astronomical tradition, created with the assistance of Chicago's Adler Planetarium): http://ecuip.lib.uchicago.edu/diglib/science/cultural_astronomy/
- Deep Sky Forum, deepskyforum.com/
- Deep Sky Observer's Companion, DOCdb: http://www.docdb.net/object_index.php
- Heggie. D: *Highlights and Problems in Megalithic Astronomy* (1981 review article): http://adsabs.harvard.edu/full/1981JHAS...12...17H
- Gullberg, Steven. Rhea: *The Milky Way and its Place in Culture: Skyscape Archaeology in the Longue Durée: Insights from Cultural Astronomy Applied to the Deep Past*, 2019, 6th Protolang Conference, Calouste Gulbenkian Foundation, Portugal. https://www.youtube.com/watch?v=RA2KhXUt9KA
- Gullberg, Steven R. *The Milky Way's Dark Constellations*, AAS YouTube Channel: https://www.youtube.com/watch?v=AkiyzhqH94k
- *Heritage Sites of Astronomy and Archaeoastronomy in the Context of the World Heritage Convention*: https://whc.unesco.org/en/activities/631
- Hevelli, Johannis. Catalogus Stellarum Fixarum, https://www.e-rara.ch/zut/content/zoom/133764
- IAU List of Common Names of Stars: https://en.wikipedia.org/wiki/List_of_proper_names_of_stars
- Linda Hall Library, Scientist of the Day: Julius Schiller, 3 Mar 2021, https://www.lindahall.org/about/news/scientist-of-the-day/julius-schiller-2
- Margiza, Reuel Norman. Stellar Connections: Understanding the Human Connection to the Cosmos, GAM 2022, Astronomers Without Borders, https://www.youtube.com/watch?v=XFPcOBYuFjc&t=668s
- Messier Catalogue: messier.seds.org
- Parsons, William, 3rd Earl of Rosse, Observations of nebulae and clusters of stars made with the six-foot and three-foot reflectors at Birr Castle, from the year 1848 up to the year 1878. https://babel.hathitrust.org/cgi/pt?id=uva.x001320331&seq=13
- Philadelphia (USA), University of Pennsylvania Libraries, Lawrence Schoenberg Collection, ms. ljs057 (old Ms.Sassoon 823), ff.56v, 57r, https://www.atlascoelestis.com/Schoen%201361%20australe.htm
- Portal to the Heritage of Astronomy,UNESCO, https://www3.astronomicalheritage.net/index.php/show-entity?identity=95&idsubentity=1
- Ratledge, David. *Observing Asterisms: Putting the Fun Back into Astronomy*, http://www.deep-sky.co.uk/asterisms.htm
- Ridpath, Ian, IAU WGSN. All Skies Encyclopedia, https://ase.exopla.net/index.php/All_Skies_Encyclopaedia
- Ridpath, Ian. Celestial Atlas by Alexander Jamieson, http://www.ianridpath.com/atlases/jamieson.html

- Ruggles, Clive. *The Cultural Value of the Night Sky*, Australasian Dark Sky Alliance, 16 Sep 2021: https://www.youtube.com/watch?v=FSiBIQ0NayA
- Saberdoesthestars blog, Stephen Saber: https://saberdoesthestars.wordpress.com/
- Sherburne, Edward. *The Sphere of Marcus Manilius made an English Poem with Annotations and an Astronomical Appendix*, 1675. https://quod.lib.umich.edu/e/eebo/A51768.0001.001?rgn=main;view=fulltext
- Schiller, Julius. Coelum Stellatum Christianum, https://commons.wikimedia.org/wiki/Category:Coelum_Stellatum_ChristianumSmithsonian NMAI, *Stellar Connections: Explorations in Cultural Astronomy* – Complete Symposium, 20 Oct 2012, features Michael Wassegjijig Price, John MacDonald, Gary Urton, and Babatunde Lawal: https://www.youtube.com/watch?v=CGjuvxPhGn8
- Schöner, Johann. Celestial globe (1522) https://collections.britishart.yale.edu/catalog/orbis:11416653
- *Solar Folklore from the Stanford Solar Center* (Myths and legends about the Sun from cultures around the world): http://solar-center.stanford.edu/folklore/
- Steinicke, Wolfgang. Revised New General Catalogue and Index Catalogue, 1 September 2022: http://www.klima-luft.de/steinicke/ngcic/rev2000/Explan.htm#2
- Stellar Asterisms Page of Wayne Schmidt: http://www.waynesthisandthat.com/stellarasterisms.htm
- Telescope Asterisms Observation Page by Michael Hotka: http://www.mikehotka.com/CertLogs/Asterisms/TelescopeObs.html
- The Centre for Archeoastronomy, an archeoastronomy and ethnoastronomy archive: https://terpconnect.umd.edu/~tlaloc/archastro/ae.html
- The Center for Archaeoastronomy at the University of Maryland: http://www.wam.umd.edu/~tlaloc/archastro/
- *The Effects of Precession in Culture and Temporal Orientation*. Talk at the 28th Annual Meeting of the European Society for Astronomy in Culture/Société Européenne pour l'Astronomie dans la Culture (SEAC) http://seac2021.org/ September 6 – 10, 2021, Sophia, Bulgaria. https://www.academia.edu/video/kPbOE1?email_video_card=watch-video&pls=RVP
- Thompson, Gary D. Survey of the History of Star Names and the Constellations: Essays and Critiques- Complete Index, 2019: http://members.westnet.com.au/gary-david-thompson/page14.html
- Traditions of the Sun (The NASA Sun-Earth Connection Education Forum site offers virtual visits to n astronomical sites and Chaco Canyon placed in appropriate historical, cultural, and scientific contexts): http://www.traditionsofthesun.org/


Many obsolete constellations created between the 13th and 20th centuries are listed in this handbook. Here are some resources on obsolete constellations:


- Horvatin: Obsolete Constellations, Department of Physics and Astronomy, University of Michigan: https://web.pa.msu.edu/people/horvatin/Astronomy_Facts/obsolete_constellations.html
- *Remnants of Extinct Constellations,* Michael E. Bakich, Astronomy Magazine, Jan 24, 2019, https://astronomy.com/magazine/2019/01/ghosts-of-extinct-constellations
- *Astronomical League Obsolete Constellation Checklist* https://www.astroleague.org/content/obsolete-constellation-checklist
- *Appendix A: The Constellations and Asterisms of Petrus Apianus (1524 – 1536)* https://link.springer.com/content/pdf/bbm%3A978-3-319-27619-9%2F1.pdf

- Warburg Institute Iconographic Database, Magic & Science, Astronomy and Astrology, Constellations: https://iconographic.warburg.sas.ac.uk/vpc/VPC_search/subcats.php?cat_1=9&cat_2=71&cat_3=32

The sky cultures that I've listed in this handbook are:

## African:

This section lists all African cultures that appear in this world asterisms list except for some that are part of the "classical" world which generated a lot of the asterisms that became modern IAU constellations, such as Egyptian. General resources on African sky lore include:

Publications:


- Alcock, P.G. *Venus Rising: South African Astronomical Beliefs, Customs, and Observations*, 2014, Pietermaritzburg, South Africa.
- Baki, Paul. *Astronomy and Indigenous Technologies in Africa*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 17.
- Belmonte, Juan Antonio. *Kingdom of Kush*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1541.
- Bullinger, E. W. The Witness of the Stars, 1882, published by Kregel Publications 1967
- Cuff, Kevin & Gould, Allan. *A Collection of Curricula for the STARLAB African Mythology Cylinder*, Science First/STARLAB,
- DeVries, Dan. *"Teaching Across Cultures"* in Mercury (the magazine of the Astronomical Society of the Pacific), Jul/Aug. 2005, p. 12.
- Doyle, Laurence and Frank, Edward. *"Astronomy of Africa"* in Encyclopedia of the History of Science, Technology and Medicine in Non-Western Cultures. Edited by H. Selin (2008, Springer)
- Esteban, César. *Pre-Islamic Religious Monuments in North Africa*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1093.
- Gauthier, Yves. *Pre-Islamic Dry-Stone Monuments of the Central and Western Sahara*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1059.
- Govender, Nadaraj. Rural Lesotho pre-service student's cultural and indigenous experiences of astronomy (ethnoastronomy) and implications for science education, University of KwaZulu-Natal, date N/K.
- Holbrook, Jarita. *African Cosmology*, 2009, Cosmology Across Cultures, ASP Conference Series, Vol 409.
- Holbrook, Jarita, et al., eds. *African Cultural Astronomy*. 2008, Springer.
- Holbrook, Jarita. *Celestial Women in Africa*, 28 Oct. 2020, Cultural History of the Universe.
- Holbrook, Jarita. *Cultural Astronomy in Africa South of the Sahara*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1013.
- Holbrook, Jarita, and Baleisis, Audra. *Naked-eye Astronomy for Cultural Astronomers*, in African Cultural Astronomy: Current Archaeoastronomy and Ethnoastronomy Research in Africa (Astrophysics and Space Science Proceedings), Oleseyi, Hakeem (ed.), August 2007.
- Holbrook, Jarita. *"Sun Gods and Moon Deities of Africa"* in Campion, N. & Curry, P., eds. Sky and Psyche. 2006, Floris Books.
- Kreamer, Christine. *African Cosmos: Stellar Arts*. 2012, Monacelli Press.

- Medupe, Thebe Rodney. *Astronomy as Practiced in the West African City of Timbuktu*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1101.
- Medupe, Thebe Rodney. *Indigenous Astronomy in Southern Africa*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1031.
- Meegan, William J. *Astrology's Universal Paradigm: The Egyptian Temple of Khnum at Esneh: A Commentary of the ceiling's Zodiacal Cycle*, 2014.
- Rall, Gloria *"The Stars of Freedom"* in Sky & Telescope, Feb. 1995, p. 36.
- Roberts, Allen F. *"Reading" Central African Skies – A Case Study from Southern DRC*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1037.
- Ruggles, Clive L. N. *Mursi and Borana Calendars*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1041.
- SAAS Star Lore spreadsheet (from SAAS website)
- Schilling, G. *"The Star-Pyramid Connection"* in Mercury, Jul/Aug. 2001, p. 28.
- Seiss, Joseph A. The Gospel in the Stars, 1882, published by Kregel Publications 1972
- Slotegraaf, Auke. *Traditional Star Lore of Africa*, April 2013.
- Snedegar, Keith *"Ikhwezi is the Morning Star"* in Mercury, Nov/Dec. 1997, p. 12.
- Souag, Lameen*: Astronomy Among the Ayt Xebbac of Tabelbala*, LACITO (CNRS – Sorbonne Nouvelle – INALCO)
- *Two Jū/wã Constellations*, Botswana Notes & Records, Volume 7.
- Urama, J. O. *Astronomy and Culture in Nigeria*, in African Cultural Astronomy: Current Archaeoastronomy and Ethnoastronomy Research in Africa (Astrophysics and Space Science Proceedings), Oleseyi, Hakeem (ed.), August 2007.
- Van Beek, Walter E. A. Dogon: *Africa's People of the Cliffs*, 2001.

Online:

- *African Ethnoastronomy*, Astronomical Society of Southern Africa: https://assa.saao.ac.za/astronomy-in-south-africa/ethnoastronomy/
- Follow the Drinking Gourd Website: http://www.followthedrinkinggourd.org/ An amateur music scholar has researched the history of the song about the Big Dipper and its use by escaping slaves: http://www.followthedrinkinggourd.org/Appendix_Teachers_Guide.htm
- Google Arts & Culture: The Blaeu Globes: https://artsandculture.google.com/story/the-blaeu-globes-heritage-library-hendrik-conscience/IQUR7D_tXXwHWA?hl=en
- Holbrook, Jarita *"African Astronomy"*: http://www.wam.umd.edu/~tlaloc/archastro/ae28.html
- Lawrence Hall of Science African Mythology Curriculum Guide (although originally developed for the STARLAB portable planetarium, some of these activities can be adapted for classroom use): https://www.raritanval.edu/sites/default/files/aa_PDF%20Files/6.x%20Community%20Resources/6.4.5_SD.7.AfricanMythology.pdf
- *South African Star Myths,* Royal Museums, Greenwich: https://www.rmg.co.uk/stories/topics/south-african-star-myths
- *Stars and the Guards* (Nuer asterisms) https://blogs.msf.org/ru/node/13577
- *The Dogon Tribe and the so-called "Sirius Mystery*": http://www.ramtops.co.uk/dogon.html and http://chandra.harvard.edu/chronicle/0400/sirius_part2.html

- *Traditional Star Lore of Africa*, Auke Slotegraaf (auke@psychohistorian.org) https://www.researchgate.net/publication/258805045_African_Star_Lore
- *Two-Eyed Seeing: African Indigenous Astronomy and NASA Moon to Mars* https://www.nativeskywatchers.com/articles/Booklet-African-2-25-21v11.pdf
- Urama, J., and Holbrook, J. "The African Cultural Astronomy Project" from the IAU, 2009: https://www.cambridge.org/core/services/aop-cambridge-core/content/view/S1743921311002134

Videos:

- *Ancient Astronomers of Timbuktu*: https://www.reelhouse.org/doggedfilms/the-ancient-astronomers-of-timbuktu
- *Cosmic Africa* (a film about African astronomer Thede Medupe, who looks into the astronomical legends of African cultures): http://www.africanfilmny.org/2011/cosmic-africa/

African cultures that I've listed include the following:

**Abagusii:** The Abagusii (Kisii) are indigenous to Kenya. Subgroups and tribes include Abagetutu, Abanyaribari, Abagirango, Abanchari, Abamachoge, and Ababasi.

**Acholi**: The Acholi (Acoli) people are a Nilotic ethnic group of Luo (Lwo) peoples indigenous to southern Sudan and Northern Uganda. Subgroups and tribes include Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Pader, and Omoro.

**Adara**: The Adara (Eda, exonym Hausa) are an ethnolinguistic group indigenous to West and Central Africa.

**Adjoukrou**: The Adjoukrou are indigenous to the Niger and Congo regions. Subgroups and tribes include Akradio, Agneby, Armébé, Gbougbo, Vieil-Aklodj, Débrimou, Lopou, Tiaha, Kpass, Orbaff, Bonn, Kaka, Kpanda, Mopoyem, Cosrou, Dabouly, Abraniamienbro, Bodou, Bouboury, Agbaille, Yassap, Vieux-Badien, Youhouli, N'gatty, and Toupah.

**Afar**: The Afar are indigenous to Djibouti, Eritrea, and Ethiorpia. Subgroups and tribes include Asaimara and Adoimara.

**Afemai**: The Afemai are indigenous to Nigeria. Subgroups and tribes include Agenebode, Weppa, Oshiolo, Emokwemhe Iviagbapue, Auchi, Ihievbe, Afuze, Warrake, Iviukwe, South Ibie, Agbede, Sabongida Ora, Igarra, Ekperi, Jattu, Fugar, Aviele, Okpella, Uneme Ehrunrun, Uneme Osu, Iviukhua, Ososo, Uzanu, Uzebba, Iviukhua, Weppa, Okpella, Okpekpe, and Somorika.

**Afrikaner**: The Afrikaners are indigenous to South Africa, Namibia, Zambia, Botswana, and Eswatini. Subgroups include Boers (Trekboers and Voortrekkers) and Cape Dutch.

**Agaw**: The Agaw are indigenous to Ethiopia. Subgroups or tribes include Bilen, Ximre, Awi, and Qemant.

**Aja**: The Aja are indigenous to Benin and Togo.

**Akan:** The Akan (Akans) are indigenous to Ghana and the Ivory Coast. Subgroups and tribes include Abbé, Abidji, Ahafo, Ahanta, Akuapem, Akwamu, Akyem, Alladian, Anyi, Ashanti, Assin, Attie, Avikam, Baoulé, Bonos, Chakosi, Egas, Evalue, Fante, M'Bato, Nzema, Sefwi (including House of Israel), Tchaman, and Wasa.

**Alur**: The Alur are indigenous to Uganda and the Democratic Republic of the Congo.

**Amakroza**: This is a Nguni ethnic group in Southern Africa whose homeland is the Eastern Cape and Zimbabwe.

**Ambundu**: The Ambundu are a Bantu group indigenous to Angola.

**Amdang**: The Amdang are indigenous to Sudan and Chad.

**Amhara**: The Amhara are indigenous to Ethiopia.

**Anuak**: The Anuak are indigenous to Ethiopia and South Sudan.

**Argobba**: The Argobba are indigenous to Ethiopia.

**Atyap**: The Atyap (Kataf, Katab) are indigenous to Nigeria.

**Auen**: The Auen (//Kau//en, ≠Auin) are indigenous to the area between Sandfontein and Gam in South Africa.

**Ayt Xebbac**: The Ayt Xebbac are Tuareg peoples of Tabelbala Oasis.

**Babu**r: The Babur and Bura peoples are indigenous to Nigeria.

**Bagirmi**: The Bagirmi are indigenous to Chad.

**Bahima:** The Bahima are nomadic people indigenous to southwestern Uganda.

**Bajuni**: The Bajuni people are indigenous to the Bajuni islands along the coasts of Kenya and Somalia.

**Bakossi**: The Bakossi (Koose) are indigenous to the Bakossi Mountains of Cameroon.

**Bakulu**: The Bakulu (Bakongo, BaKulu) are indigenous to Nigeria.

**Balanta**: The Balanta are indigenous to Guinea-Bissau, Senegal, and the Gambia.

**Balondo-ba-Konja**: The Balondo-ba-Konja are indigenous to Cameroon.

**Bambara**: The Bambara (Bamana) people are indigenous to Mali.

**Bamileke**: The Bamileke are indigenous to Cameroon. Subgroups and tribes include Mengaka, Ngiemboon, Ngombale, Ngomba, Ngwe, Yemba, Fe'fe', Ghomala', Kwa’, Nda'nda', and Medumba.

**Bamum**: The Bamum are indigenous to Cameroon.

**Banda**: The Banda are indigenous to the Central African Republic, South Sudan, and the Democratic Republic of the Congo. Subgroups and tribes include the Central, West, and South Banda.

**Bangala:** The Bangala are a Bantu people in the Democratic Republic of the Congo, South Sudan, and the extreme western part of Uganda.

**Bangweulu Twa**: The Bangweulu Twa are indigenous to Zambia.

**Bantu**: Bantu people speak Bantu languages and comprise several hundred indigenous ethnic groups in Africa from Central Africa across the African Great Lakes to Southern Africa.

**Bari**: The Bari are indigenous to the South Sudan and Uganda. Subgroups and tribes include Pojulu, Kakwa, Nyangwara, Mandari, Kuku, other Karo tribes.

**Bariba**: The Bariba people are indigenous to Benin and Nigeria.

**Basongye:** The Basongye are indigenous to Zaire.

**Batammaliba**: The Batammaliba people are indigenous to West Africa.

**Batwa**: The Batwa people are indigenous to the African Great Lakes region.

**Beidanes**: The Beidanes are indigenous to Mauritania.

**Beja**: The Beja are indigenous to Sudan, Eritrea, and Egypt. Subgroups and tribes include the Bishari, Hadendoa, Hedareb, Amarar, and Beni-Amer.

**Bemba:** The Bemba people are a Bantu ethnic group indigenous to Zambia and Katanga Provice in the Democratic Republic of the Congo.

**Bembe**: The Bembe are indigenous to the Democratic Republic of the Congo and Tanzania.

**Bena**: The Bena people are indigenous to Niger.

**Berber**: The Berber (Imazighen) people are indigenous to Morocco, Algeria, Tunisia, and Libya in North Africa.

**Berom**: The Berom are indigenous to Niger.

**Bhaca**: The Bhaca (amaBhaca, Zelemus, AbakwaZelemu) people are indigenous to South Africa.

**Bolewa**: The Bolewa are indigenous to Nigeria.

**Bondei**: The Bondei are indigenous to Tanzania.

**Borana:** The Borana are nomadic cattle herders indigenous to southern Ethiopia and Kenya.

**Bubi**: The Bubi are indigenous to Bioko Island in Equatorial Guinea.

**Buduma**: The Buduma (Yedina) are indigenous to Lake Chad.

**Bwa**: The Bwa are indigenous to Burkina Faso and Mali.

**Bwatiye**: The Bwatiye are indigenous to Nigeria.

**Cafres**: The Cafres (Kaffirs) are indigenous to South African

**Cangin:** These are Serer people indigenous to a small area east of Dakar, Senegal, who speak the Cangin language rather than the Serer language.

**Chaga**: The Chaga are indigenous to Northern Tanzania.

**Chaoui**: The Chaoui (Shawi, Shawiya) are indigenous to Algeria.

**Chewa**: The Chewa are indigenous to Malawi, Zambia, Zimbabwe, and Mozambique.

**Chokwe**: The Chokwe are indigenous to Angola, the Democratic Republic of the Congo, and Zambia.

**Dagaaba**: The Dagaaba (Dagaare, Dagara) are indigenous to Ghana and Burkina Faso.

**Dagombas**: The Dagombas are indigenous to Ghana.

**Damara**: The Damara are indigenous to Namibia.

**Dinka**: The Dinka people are a Nilotic ethnic group native to the South Sudan.

**Dogon**: The Dogon (also known as Kaador or Kaado) are indigenous to the central plateau region of Mali in West Africa. Subgroups and tribes include Ampari Dogon (including Nyamboli), Tebul U, Mombo Dogon, Escarpment Dogon (including Tommo So), Jamsai Dogon, Nanga Dogon, Yanda Dogon, Walo, Beente, Duleri Dogon, Pinia, Bondum Dogon, Dogul Dogon, Budu, Western Plains Dogon, Toro-tegu Dogon, and Bangande.

Resources include:


- Griaule, Marcel. *Conversations with Ogotemmeli: An Introduction to Dogon Religious Ideas*. 1965, Oxford: Oxford Univ. Press.

**Ebira:** The Ebira (Igbira) are indigenous to Nigeria.

**Efik**: The Efik are indigenous to Nigeria.

**Ekoi**: The Ekoi (Ejagham) are indigenous to Nigeria and Cameroon.

**Esan**: The Esan are indigenous to Nigeria.

**Ewe:** The Ewe (Mono Kple Volta) people are a Gbe speaking ethnic group indigenous to Ghana and Togo. Subgroups and tribes include Agave, Agome, Anlo, Avenor, and Waci.

**Fang:** The Fang (Fãn, Pahouin) are a Bantu ethnic group indigenous to equatorial Guinea, northern Gabon, and southern Cameroon.

**Fon:** The Fon (Fon nu, Agadja, Dahomey) people are the largest ethnic group in Benin and are also found in southwest Nigeria and Togo.

**Fula**: The Fula are indigenous to West Africa. Subgroups and tribes include the Wodaabe, Maasina Fulfulde, Sierra Leonean Fula, and Toucouleur.

**Ga-Adangbe:** The Ga-Adangbe are indigenous to the Greater Accra region of Ghana. Subgroups include the Ga and Adangbe.

**//Gana:** The //Gana are a San ethnic group indigenous to Botswana.

**Gbaya**: The Gbaya are indigenous to the Central African Republic and Cameroon. Subgroups include Bokoto, Kara, Buli (including Toongo), Ali, Mandja, Gbaya-Bossangoa, Bozom, Mbodomo, Gbanu, and Bangandu. Researchers including E. M. Bolle and Marcel Griaule have recorded some asterisms.

**Ghomaras**: The Ghomaras are indigenous to the western rif of Morocco.

**Gnawas**: The Gnawas are indigenous to southern Morocco.

**Guanche:** The Guanche peoples are indigenous to the Canary Islands.

Resources include:

- Aparicio, Antonio and Esteban, César. *A Modern Myth – The "Pyramids" of Güímar*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1125.
- Belmonte, Juan Antonio. Pre-Hispanic Sanctuaries in the Canary Islands, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1115.

**Gurage:** The Gurage are indigenous to Ethiopia. Subgroups include Kistane, Zay, Inor, Mesqan, Muher Sebat Bet (including Chaha).

**Gurunsi**: The Gurunsi are indigenous to Burkina Faso, Ghana, and Togo. Subgroups include the Lukpa, Kabye, Tem, Lamba, Delo, Bago-Kusuntu, Chala, Lyele, Nuna, Kalamse, Pana, Winye, Deg, Puguli, Paasaal, Sisaala, Chakali, Siti, Tamprusi, and Vagla.

**G/wi:** The G/wi and G/wikhwena peoples are part of the San ethnic group and are indigenous to Botswana.

**Hadiya**: The Hadiya are indigenous to Ethiopia.

**Haratins**: The Haratins are indigenous to Ethiopia.

**Hausa**: The Hausa are indigenous to Niger, Nigeria, and Ghana (Hausaland).

**Herero**: The Herero (Otjiherero, Ovaherero, OvaHimba, Ovambanderu) people are a Bantu group indigenous to parts of Southern Africa, principally Namibia and also parts of Botswana and Angola.

**Hiechware:** The Hiechware (Hietshware) are indigenous to the eastern Kalahari.

**Hungwe**: The Hungwe (Wahungwe) people are indigenous to Zimbabwe.

**Hutu**: The Hutu are indigenous to Rwanda, Burundi, and the Democratic Republic of the Congo.

**Ibibio**: The Ibibio are a coastal people of southern Nigeria related to the Annang, Igbo and Efik.

**Idoma**: The Idoma are indigenous to Nigeria. Subgroups include the Agatu, Alago, and Yala.

**Igbo:** The Igbo people (Ibo, Ebo, Eboe, Heebo, Ńdị Ìgbò) are indigenous to Nigeria, Cameroon, Gabon, and Equatorial Guinea. Subgroups include the Anioma, Aro, Edda, Edpeye, Etche, Ezaa, Ika, Ikwerre, Ikwo, Isu, Izzi, Mbaise, Mgbo, Ngwa, Nri-Igbo, Ogba, Ohafia, Ohuhu, Onitsha-ado, Ukwuani, and Waawa.

Resources include:

- Chukwuezi, Barth. *The Regularities of the Celestial Forces: The Concept of Sun and Moon in Igbo World View*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 120.

**Igdalen:** The Igdalen are indigenous to Niger, Mali, and Algeria.

**Igede**: The Igede are indigenous to Nigeria

**Ijaw**: The Ijaw are indigenous to Nigeria. Subgroups include the Bille, Engenni, Ibani, Kalabari, Kula, Nkoro, Nkoroo, and Obolo.

**Iraqw**: The Iraqw are indigenous to Tanzania.

**Isoko**: The Isoko are indigenous to Nigeria.

**Jola**: The Jola are indigenous to Senegal. Subgroups include Banjaal, Bayot, Gusilay, Fogni, Karon, Kasa, Kuwaataay, and Mlomp.

**Jū /'hoansi:** The Jū /'hoansi are part of the San people who live in the Nyae Nyae district of Namibia.

**Jū/Wãsi**: The Jū/Wãsi are part of the San (see below) living in Botswana.

**Jukun**: The Jukun (Wannu) are indigenous to Nigeria.

**Kabyle**: The Kabyle are indigenous to Algeria.

**Kaguru**: The Kaguru are indigenous to Tanzania in the Ukaguru Mountains.

**Kalanga**: The Kalanga (Bakalanga) are a subgroup of the Bakalanga people who are indigenous to Zimbabwe and Botswana.

**Kalenjin**: The Kalenjin are indigenous to the Rift Valley of Kenya. Subgroups include the Keiyo, Tugen, Marakwet, Nandi, Kipsigis, Sabaot, Pokoot, and Terik.

**Kamba**: The Kamba are indigenous to Kenya.

**Kanuri**: The Kanuri are indigenous to Niger, Nigeria, Chad, and Cameroon. Subgroups include the Kanembu and the Yerwa Kanuri.

**Kapsiki**: The Kapsiki are indigenous to the Mandara Mountains of Nigeria and Cameroon.

**Karamojong**: The Karamojong are indigenous to Uganda.

**Karanga**: The Karanga people are a southern group of the Shona people indigenous to Zimbabwe.

**Kassena**: The Kassena are indigenous to Namibia.

**//Kau //en:** The //Kau //en (≠aukwe, ≠ausan, Auen, ≠Auin) are indigenous to the area between Sandfontein (north of the Orange River) and Gam.

**Kavango**: The Kavango are indigenous to Namibia. Subgroups include the Kwangali, Mbunza, Shambyu, Gcririku, and the Mbukushu.

**Kerewe**: The Kerewe are indigenous to Urkerewe Island in Tanzania.

**Khoisan:** Khoisan or Khoe-San is a catch all term for southern African people who don't speak the Bantu language and includes the Khoikhoi (see above) and San (see below).

**Khwe:** The Khwe are indigenous to Namibia, Angola, Botswana, South Africa, and parts of Zambia.

**Kikuyu**: The Kikuyu (Agĩkũyũ, Gĩkũyũ) are a Bantu ethnic group indigenous to central Kenya.

**Kilba**: The Kilba are indigenous to Nigeria.

**Kissi**: The Kissi are indigenous to Guinea and Sierra Leone.

**Kiswahili**: Part of the Swahili peoples (see below) in Zanzibar.

**Kofyar**: The Kofyar are indigenous to Nigeria.

**Kongo:** The Kongo (Bisi Kongo, EsiKongo, MwisiKongo, Bakongo, Mukongo) are a Bantu ethnic group who speak Kikongo and live along the Atlantic coast of Africa.

**Konso**: The Konso are indigenous to Sierra Leone.

**Kpelle**: The Kpelle are indigenous to Liberia and Guinea.

**!Kung**: The !Kung are part of the San (see below) living in the Kalahari Desert in Namibia, Botswana and Angola. They are sometimes referred to as Xu.

**Kuteb**: The Kuteb are indigenous to Taraba State in Nigeria.

**Lemba**: The Lemba (Remba, Sena, Mwenye) people are a Bantu speaking group indigenous to Zimbabwe and South Africa, with smaller groups in Mozambique and Malawi.

**Lobedu**: The Lobedu, Lovedu, or Balobedu (also known as BaLozwi or Bathobolo) are a southern African ethnic group within the Sotho peoples (see below) who have their own kingdom, Balobedu, within the Limpopo province of South Africa.

**Lozi**: The Lozi (also known as the Rozi), speak Lozi or Silozi, a Sotho-Tswana language and are situated in western Zambia.

**Luba:** The Luba are indigenous to Zaire. Subgroups include the Mafwe, Mbukushu, Totela, and the Yeyi.

**Luo:** The Luo (Dholuo)) are indigenous to western Kenya and the Mara Region of northern Tanzania.

**Maasai**: This is a Nilotic ethnic group inhabiting northern, central, and southern Kenya and northern Tanzania. Subgroups include the Samburu, Arusha, and Kwavi.

**Makua:** The Makua (Makhuwa) peoples are a Bantu ethnic group indigenous to the southern border provinces of Tanzania.

**Malagasy**: The Malagasy are indigenous to Madagascar and Mauritius. Subgroups include Merina, Sihanaka, Betsileo, Zafimaniry, Antaifasy, Antemoro, Antaisaka, Antamabahoaka, Tandroy, Antankarana, Antanosy, Bara, Beetsimisaraka, Bezanozano, Mahafaly, Makoa, Mikea, Sakalava, Tanala, Tsimihety, and Vezo.

**Mandinka**: The Mandinka are indigenous to Mali, Gambia, Guinea, and Senegal. Subgroups include the Bolon.

**Manyika:** The Manyika are a Shona people with their own dialect, Manyika. They are indigenous to the eastern part of Zimbabwe and Mozambique.

**Merazig:** The Merazig are indigenous to Tunisia.

**Mijikenda**: The Mijikenda are indigenous to the coast of Kenya. Subgroups include the Chonyi, Giriama, Digor, Sefeju, and Rabai.

**Mfengu**: The Mfengu (Fengu, amaMfengu, Fingo) are a subgroup of the Xhosa indigenous to the Eastern Cape province of South Africa.

**Mozabite**: The Mozabite are indigenous to Algeria.

**Mpondo**: The Mpondo (amaMpondo) people are indigenous to the Eastern Cape in South Africa.

**Mumuye**: The Mumuye are indigenous to Taraba State in Nigeria.

**Mursi:** The Mursi are a group indigenous to southern Ethiopia and northern Kenya.

**Mwera**: The Mwera are indigenous to the Mtwara and Ruvuma Regions of Tanzania.

**Myene**: The Myene people are a group speaking Bantu languages indigenous to Gabon.

**Nama**: This group, also known as Namaqua, are an ethnic group of Khoe-Kwadi speaking peoples of South Africa, Namibia, and Botswana.

**Naron**: This is part of the San peoples (see below) residing in the central Kalahari.

**Ndebele:** The Ndbele are divided into southern Ndebele (west of Pretoria, around Hammanskraal, and Mpumalanga Province) and northern Ndebele (around Mokopane, Mashashane, and Zebediela).

**Ndendeule**: The Ndendeule are indigenous to Tanzania.

**Ngbandi**: The Ngbandi (Yakoma) are indigenous to the Democratic Republic of the Congo and the Central African Republic.

**Ngoni**: The Ngoni are indigenous to Malawi, Mozambique, Tanzania, Zimbabwe, and Zambia and are a Nguni speaking group.

**Nguni:** The Nguni are a group of closely related Bantu ethnic groups indigenous to South Africa, with related groups in other parts of Southern Africa. This includes the Swazi (see below), Eswatini, AbaNgoni, and Ndebele (see above).

**Nkoli**: The Nkoli are indigenous to Uganda.

**Ntshuna:** The Ntshuna people are indigenous to southern Africa.

**Nubian**: The Nubian people are indigenous to Nubia in Egypt and Sudan. Subgroups include the Nobiin, Mattokki, Dongolawi, Midob, Birgid, and Hill Nubians (including Dilling, Debri, Ghulfan, Kadaru, Karko, and Wali).

**Nuer**: The Nuer people are a Nilotic ethnic group concentrated from Bentui in the east to the Gambela region of Ethiopia and are the largest ethnic group in the South Sudan.

**Nupe**: The Nupe are indigenous to Niger State and Kwara State in Nigeria.

**Nyabungu**: Nyabungu, or Shi, is a Bantu language of the Democratic Republic of the Congo.

**Nyasa**: The Nyasa (also known as the Kimanda, Kinyasa, and Manda) are a people of southeastern Africa, residing mainly in Malawi, southwestern Tanzania, and parts of northern Moxambique.

**!O Kung:** The !O Kung are indigenous to southern Angola.

**Ogoni**: The Ogoni are indigenous to Ogoniland in Nigeria.

**Oromo**: The Oromo are indigenous to Oromia in Ethiopia. Subgroups include the Boorana, Barento, Salale, Machaa, Arsi and Wollo.

**Ovambo**: The Ovambo are indigenous to Namibia.

**Ovimbundu**: The Ovimbundu are indigenous to Angola.

**Pedi:** The Pedi speak one of the dialects of the Northern Sotho (SePedi) and are found in South Africa's northeastern provinces.

**Pokomo:** A Bantu ethnic group of southeastern Kenya.

**Rendille**: The Rendille are indigenous to the eastern province of Kenya.

**San**: The San peoples (also Saan or Bushmen) are members of various Khoe, Tuu, or Kx'a speaking hunter gatherer groups that are the first nations of Southern Africa. The sky culture for Stellarium was created by Suki Lock for the South African Astronomical Observatory (SAAO), based on information supplied by Auke Slotegraaf and modified using inputs and information from Themba Matomela, Thembela Mantungwa and Mdumiseni Nxumalo. The project was initiated by Sivuyile Manxoyi after having discussions with Prof Jarita Holbrook and Prof Kevin Snedegar on African Cultural astronomy.

**Sandawe**: The Sandawe people are indigenous to the Chemba district of Tanzania.

**Serer**: The Serer people are indigenous to Senegal. Subgroups include the Laalaa, Ndut, Niominka, Serer-Noon, Palor, and Saafi.

**Shilha**: The Shilha people are indigenous to Morocco.

**Shona:** The Shona people are a Bantu ethnic group indigenous to southern Africa, primarily Zimbabwe. They have five clans:

- Karanga or Southern Shona,
- Zezuru or Central Shona,
- Korekore or Northern Shona,
- Manyika or Eastern Shona, and
- Ndau in Mozambique.

**Sidama:** The Sidama people are indigenous to Ethiopia.

**Silt'e:** The Silt'e people are indigenous to Ethiopia.

**Somali**: The Somalis are an East Cushitic ethnic group native to the Horn of Africa.

Resources:

- Galaal, Muusa H. I. *Stars, Seasons and Weather in Somali Pastoral Traditions*, Mogadishu, 1972.

**Songye**: The Songye are a Bantu ethnic group from the central Democratic Republic of the Congo.

**Soninke**: The Soninke are indigenous to West Africa. Groups include the Zarma, Wogo, Kurtey, Ingalkoyyu, Arma, Belbali, and the Dendi.

**Sotho**: the Sotho speak the Sesotho dialect of the Bantu language and are found in Southern Africa and Lesotho. The Basotho are the southern Sotho peoples.

**Subu**: The Subu people are indigenous to Cameroon.

**Sukuma**: The Sukuma are indigenous to Tanzania.

**Swahili**: The Swahili people include Bantu, Afro-Arab, and Comorian ethnic groups in East Africa that speaks the Swahili (WaSwahili) language. They are indigenous to the Swahili Coast, which includes the Zanzibar archipelago, the Tanzanian coastline, littoral Kenya, northern Mozambique, and the Comoros Islands. Resources include:

- Ruehle, Chuck. Telescopes to Tanzania: The Rest of the Story, Astronomers Without Borders, 2011, http://archive.astronomerswithoutborders.org/member-reports/1720-telescopes-to-tanzania-the-rest-of-the-story.html

**Swazi:** The Swazi people (Emaswati, Swati) are a Bantu ethnic group indigenous to Southern Africa in Eswatini, a sovereign kingdom.

**Tabwa:** The Tabwa (Tabwe) are indigenous to the southwestern shores of Lake Tanganyika and the adjacent mountains and forested plains of southeastern Democratic Republic of the Congo and northeastern Zambia.

**Tallensi**: The Tallensi are indigenous to Ghana and Burkina Faso.

**Teke**: The Teke peoples are indigenous to the Republic of the Congo and the Democratic Republic of the Congo.

**Tigrayan**: The Tigrayan peoples are indigenous to Eritrea and Ethiopia.

**Tlôkwa**: The Tlôkwa or Batlôkwa (Batlokoa, Badogwa) are Kgatla communities in Botswana, Lesotho, and South Africa and is part of the larger Bakgatla people, which is a sub-division of the Bantu speaking Tswana peoples.

**Tooro**: The Tooro are indigenous to Uganda. Subgroups include the Abagweri, Abasingo, Abahinda, Ababiito, Abasumbi, Abayaga, Ababwiju, Abasiita, Abasambo, Ababoopi, Ababwooro, Abagaya, Abalebeki, Abango, Abagimu, Abarungu, Abanyakyoozi, and Abasoigi.

**Toubou**: The Toubou peoples are indigenous to Chad, Niger, Sudan, and Libya. Subgroups include the Daza and Teda.

**Tsonga**: The Tsonga or Vatsonga are a Bantu ethnic group residing in southern Mozambique and South Africa. They speak Zitsonga, a southern Bantu language.

**Tswana**: A Bantu speaking peoples of Southern Africa: Their language is known as Setswana. Also known as Batswana (singular Motswana). Mostly found in Botswana today.

**Tuareg**: The Tuareg or Twareg are a Berber ethnic people inhabiting the Sahara desert.

Resources include:

- Oxby, Clare. *Calendar Pluralism and the Cultural Heritage of Domination and Resistance (Tuareg and Other Saharans),* in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1107.

**Tutsi:** The Tutsi are indigenous to Rwanda, Burundi, the and Democratic Republic of the Congo and include the Banyamulenge.

**Venda**: This is a Bantu ethnic group living near the South African – Zimbabwean border.

**/Xam**: This is a group within the San peoples (see above).

Resources on /Xam sky lore include:

- Holbrook, Jarita and De Prada-Samper, J. M. /Xam *Skylore of the Karoo Desert, South Africa*, 2016, Mediterranean Archaeology and Archaeometry, Vol. 16, No. 4, 2016, pp. 81 – 86.
- Slotegraaf, Auke, and Koorts, W.P., */Xam Astronomical References in G. R. von Wiellight's Boesman Stories*, presentation to the AAHS.

**//Xegwi:** The //Xegwi (Batwa) were indigenous to the KwaZulu-Natal Drakensber and the eastern Cape but have long since been assimilated into local cultures.

**Xhosa**: This is a Nguni ethnic group in Southern Africa whose homeland is the Eastern Cape and Zimbabwe. The sky culture for Stellarium was created by Suki Lock for the South African Astronomical Observatory (SAAO), based on information supplied by Auke Slotegraaf and modified using inputs and information from Themba Matomela, Thembela Mantungwa and Mdumiseni Nxumalo. The project was initiated by Sivuyile Manxoyi after having discussions with Prof Jarita Holbrook and Prof Kevin Snedegar on African Cultural astronomy.

**!Xõ:** The !Xõ (! Xu, Koon, !Xoon) are indigenous to eastern Namibia and western Botswana.

**Yoruba**: The Yoruba people are a sub-Saharan African ethnic group indigenous to west Africa (Nigeria, Benin, and Togo) and are one of the largest ethnic groups in Africa.

**Zande**: The Zande people are an Ubangian ethnic group indigenous to central Africa.

Resources include:

Publications:

- Sègla, Dafon Aimé. *Yoruba Ethnoastronomy – "Orisha/Vodun" or How People's Conception of the Sky Constructed Science*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1051.

Online:

- Lawal, Babatunde. A Big Calabash With Two Halves: T Yoruba Vision of the Cosmos, in Stellar Connections: Explorations in Cultural Astronomy, Smithsonian NMAI Symposium, 20 Oct 2012: https://www.youtube.com/watch?v=CGjuvxPhGn8

**Zulu**: The Zulu are a Nguni ethnic group in Southern Africa. The sky lore for Stellarium was created by Suki Lock for the South African Astronomical Observatory (SAAO) based on information supplied by Auke Slotegraaf and modified with information received from Themba Matomela, Thembela Mantungwa, and Mdumiseni Nxumalo. The project was initiated by Sivuyile Manxoyi after having

discussions with Professor Jarita Holbrook and Professor Kevin Snedegar on African Cultural astronomy.

## Australian:

Many of the asterisms in this list come from the peoples of Australia listed below.

Useful resources on indigenous Australian sky lore include:

Publications:


- Cairns, Hugh. *Astronomical Reference and Spiritualities in Empirical Aboriginal Night Sky*, Sydney, Australia
- Cairns, Hugh and Harney, Bill Induma *Four Circles, the Law Man, and the Stars: A Northern Australian People with their Intellectual Legal World of the Four Circles Tradition*, 2012.
- Clarke, Philip A. *An Overview of Australian Aboriginal Ethnoastronomy*, University of Texas Press, January 2009.
- Clarke, Philip A. *Australian Aboriginal Astronomy and Cosmology*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2223.
- Clarke, Philip A. *Australian Aboriginal Ethnometeorology and Seasonal Calendars*, History and Anthropology, 20:2, 2009, pp. 79 – 106.
- Clarke, Philip A. *The Aboriginal Australian Cosmic Landscape, Part 1: The Ethnobotany of the Skyworld, Journal of Astronomical History and Heritage, 18(2), pp. 180-194, 2014.*
- Clarke, Philip A. *The Aboriginal Australian Cosmic Landscape, Part 2: Plant Connections with the Sky World*, Journal of Astronomical History and Heritage, *17(3), pp. 307 – 325, 2014.*
- Fuller, Robert S., Hamacher, Duane W., and Norris, Ray P. *Astronomical Orientations of Bora Ceremonial Grounds in Southeast Australia*, Australian Archaeology, No. 77.
- Fuller, Robert S. and Bursill, Leslie W. *Linking the Pleiades to a Reawakened Black Duck Songline in Southeastern Australia,* 2021.
- Fuller, Robert S, Norris, Ray P, and Trudgett, Michelle. *The Astronomy of the Kamilaroi and Euahlayi Peoples and Their Neighbours*, November 2014.
- Fuller, Robert, Norris, Ray P., and Trudgett, Michelle: *The Astronomy of the Kamilaroi and Their Neighbours*, Australian Aboriginal Studies, Macquarie University, 2014.
- Gantevoort, Michelle, Hamacher, Duane W. and Lischick, Savanah. *Reconstructing the Star Knowledge of Aboriginal Tasmanians*, Gantevoort, Nura Gili Indigenous Programs Unit, University of New South Wales, Sydney, NSW, 2052, Australia. Email: gantevoort@icloud.com, Hamacher, Monash Indigenous Studies Centre, Monash University, Clayton, VIC, 3800, Australia. Email: duane.hamacher@monash.edu and Lischick, LifeCell Corporation, 5 Millenium Way, Branchburg, NJ 08876, USA. Email: savannah.lischick@gmail.com
- Hamacher, II, Duane W., and Norris, Ray P. *"Bridging the Gap" through Australian Cultural Astronomy,* in Ruggles, Clive (ed), Oxford IX, International Symposium on Archaeoastronomy and Astronomy in Culture Proceedings, IAU Symposium No. 278, 2011.
- Hamacher II, Duane W. *Identifying Seasonal Stars in Kaurna Astronomical Traditions*, , Nura Gili Indigenous Programs Unit, University of New South Wales, Sydney, NSW, 2052, Australia, E-mail: d.hamacher@unsw.edu.au
- Hamacher, Duane W. and Visuvanathan, Rubina R. *Twin Suns in Australian Aboriginal Traditions*, Journal of Astronomical History and Heritage, 21 (2 & 3), 2018, pp. 107 -114.
- Hamacher, Duane W. *Indigenous Use of Stellar Scintillation to Predict Weather and Seasonal Change*, Duane W. Hamacher, School of Physics, University of Melbourne, Parkville, Victoria

3010, Australia, John Barsa, Segar Passi, and Alo Tapim, Meriam Elders, Murray Island, Queensland 4875, Australia. Correspondence: Duane Hamacher, duane.hamacher@gmail.com

- Hamacher, Duane W. *Observations of Red–giant Variable Stars by Aboriginal Australians*, Monash Indigenous Studies Centre, Monash University, Clayton, VIC, 3800 Australia, Astrophysics Group, University of Southern Queensland, Toowoomba, QLD, 4350, Australia, Email: duane.hamacher@monash.edu
- Hamacher II, Duane Willis. *On the Astronomical Knowledge and Traditions of Aboriginal Australians*: A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy December 2011
- Hamacher, Duane W., Norris, Ray P. and Leaman, Trevor M. *Perceptions of Comets Among Aboriginal Australians*, Warawara – Hamacher, the Department of Indigenous Studies, Macquarie University, NSW, 2109, Australia, duane.hamacher@mq.edu.au 1, d.hamacher@unsw.edu.au, Norris, CSIRO Astronomy & Space Science, P.O. Box 76, Epping, NSW, 1710, Australia, ray.norris@csiro.au Leaman, Nura Gili Indigenous Programs Unit, University of New South Wales, Sydney, NSW, 2052, Australia. Emails: t.leaman@unsw.edu.au;
- Haynes, R. *Dreaming the Sky,* in Sky & Telescope, Sep. 1997, p. 72.
- Kemp, Charles, Hamacher, II, Duane W, Little Daniel, and Cropper, Simon. *Comparing constellations across cultures*, University of Melbourne, March 2022.
- Kendall Gantervoort, Michelle Kathryn Holly. *Stingray in the sky: Astronomy in Tasmanian Aboriginal Culture and Heritage*, A thesis submitted to the Nura Gili Indigenous Programs Unit at the University of New South Wales in partial fulfilment of the requirements for the Honours degree of Bachelor of Arts October 2015
- Leaman, Trevor M, and Hamacher, Duane W. *Aboriginal Astronomical Traditions from Ooldea, South Australia, Part 1: Nyeeruna and 'the Orion Story'*, Journal of Astronomical History and Heritage, 17 (2), 180 – 194, 2014.
- Leaman, Trevor M, Hamacher, Duane W., and Carter, Mark T. *Aboriginal Astronomical Traditions from Ooldea, South Australia, Part 2: Animals in the Ooldean Sky*, Journal of Astronomical History and Heritage, 19 (1), 61 – 78, 2016.
- Leaman, Trevor M. and Hamacher, Duane W. *Baiami and the Emu Chase: An Astronomical Interpretation of a Wiradjuri Dreaming Associated with the Burbung*, Leaman, School of Humanities and Languages, University of New South Wales, Sydney, NSW, 2052, Australia, Email: t.leaman@unsw.edu.au and Hamacher, School of Physics, University of Melbourne, Parkville, Victoria 3010, Australia, Email: duane.hamacher@unimelb.edu.au
- Leaman, Trevor Mark. *Wiradjuri Skies: Aboriginal Astronomy in Central New South Wales*, UNSW Sydney, June 2024.
- Norris, Ray & Cilia *Emu Dreaming: An Introduction to Australian Aboriginal Astronomy*. 2014.
- Norris, Ray P. and Hamacher, Duane W. *Australian Aboriginal Astronomy – An Overview*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2215.
- Wyatt, Geoffrey, Stevenson, Toner, and Hamacher, Duane W. *Dreamtime Astronomy: Development of a New Indigenous Program at Sydney Observatory*, Wyatt, Sydney Observatory, Watson Road, Observatory Hill, Sydney, NSW, 2000, Australia, Corresponding Email: geoffw@phm.gov.au, Stevenson, Nura Gili Indigenous Programs Unit, University of New South Wales, Sydney, NSW, 2052, Australia

Online:

- *A Shark in the Stars: Astronomy and Culture in the Torres Straight*: https://theconversation.com/a-shark-in-the-stars-astronomy-and-culture-in-the-torres-strait-15850
- Australian Aboriginal Astronomy site by Ray Norris: http://emudreaming.com/index.html
- Guide to Aboriginal Astronomy (brief, from Australian Geographic): https://www.australiangeographic.com.au/topics/science-environment/2017/07/a-guide-to-aboriginal-astronomy/
- Hamacher, Duane W. Dating Tasmanian Aboriginal Oral Traditions to 12,000 Years Ago, 19 May 2021: https://www.youtube.com/watch?v=Q_-oIWYC2fE
- Hamacher, Duane W. Stars that vary in brightness shine in the oral traditions of Aboriginal Australians, 9 November 2017: https://theconversation.com/stars-that-vary-in-brightness-shine-in-the-oral-traditions-of-aboriginal-australians-85833
- Hamacher, Duane W. Under Aboriginal Skies: The Astronomical Knowledge and Traditions of Indigenous Australians: https://www.youtube.com/watch?v=iagVzcXy6b8
- Terraastro Gallery: Australian astronomer Alex Cherney's site displaying Australian skies. Cherney is one of the Stellarium contributors who created the Boorong skylore page for them: http://www.terrastro.com/

Videos:

- Australian Indigenous Astronomy (10 min introduction): https://www.youtube.com/watch?v=kkjf0hCKOCE A full lecture on the topic is at: https://www.youtube.com/watch?v=JCho0SfHKcU

Australian sky cultures that I've listed in this handbook include:

**Adnyamathanha:** The Adnyamathanha are indigenous to the northern Flinders Ranges, South Australia, and include the Guyani, Jadliaura, Pilatapa, and sometimes the Barngarla peoples.

**Alawa:** These peoples are indigenous to the southeast portion of Arnhem Land in Australia.

**Anindilyakwa:** The Anindilyakwa (Warindilyakwa, Warnumamalya) are indigenous to Groote Eyland, Bickerton Island, and Woodah Island in the Gulf of Carpentaria in the Northern Territory of Australia.

**Anmatyerre:** The Anmatyerre (Anmatjera, Anmatyerr, Anmatjirra, Amatjere) people are indigenous to the Northern Territory of Australia.

**Arrernte:** The Arrernte (Aranda, Arunta, Arranta) are indigenous to the area of Mparntwe (Alice Springs) in the Central Australia region of the Northern Territory of Australia.

**Awabakal**: The Awabakal are indigenous to the Hunter Region of New South Wales in Australia from Wollombi in the west to the Lower Hunter River near Newcastle and Lake Macquarie in the south.

**Badjala:** The Badjala are indigenous to Fraser Island (K'gari) and the adjacent mainland in the Wide Bay-Burnett region of Queensland, Australia.

**Birrbay:** The Birrbay (Birpai, Biripi, Birippi) people are indigenous to New South Wales.

**Boorong**: This is a tribe of the Wergaia or Werrigia people in the Mallee and Wimmera regions of northwestern Victoria in Australia. William Stanbridge collected descriptions of 40 stars, asterisms, and other celestial phenomena and submitted them to the Philosophical Institute in Melbourne in 1857. The Boorong clan has since ceased to exist as an entity. The Boorong sky culture on Stellarium was contributed by John Morieson and Alex Cherney.

**Bundjalung**: The Bundjalung (Bunjalung, Badjalang, Bandjalang) people are indigenous to the northern coast of New South Wales.

**Butchulla:** The Butchulla peoples (Butchella, Badjala, Bajdula, Badjela, Bajellah, Badtjala, Budjilla) are indigenous to K'gari (Fraser Island), Queensland, Australia.

**Cammeraygal**: The Cammeraygal (Cam-mer-ray-gal, Gamaraigal, Kameraigal, Cameragal, Gai-mariagal) people are a clan of the 29 Dharug tribes indigenous to the Lower North Shore of Sydney, New South Wales, Australia.

**Darkinjung:** The Darkinjung people were indigenous to the central coast of New South Wales, but died out in the late 19th century due to the effects of disease and dispossession. In the present day a Darkinjung Aboriginal Land Council represents the interests of the Aboriginal residents of these lands, but these modern residents come from other Aboriginal groups.

**Dharawal:** The Dharawal (Tharawal) people are indigenous to the Sydney basin area of New South Wales.

**Dharug:** The Dharug (Darug) people are indigenous to the area of Sydney in New South Wales.

**Diyari**: The Diyari (Dieri) people are indigenous to the South Australian desert near the delta of Cooper Creek to the east of Lake Eyre.

**Djangadi:** This Djangadi people (Dhungatti, Dainggati, Tunggutti, Dhungutti) are indigenous to the Macleay Valley of New South Wales.

**Eastern Arrernte:** Also known as the Central Arrernte, these are people who speak the Akarre, Antekerrepenh, Ikngerripenhe, and Mparntwe Arrernte dialects and are indigenous to the central desert area of Australia.

**Euahlayi**: The Euahlayi people speak the Yuwaalaraay language and are situated in northwestern New South Wales in Australia. You'll find ethnoastronomers calling them Euahlayi (pronounced 'U-wah-lay-I') and linguists calling them Yuwaalaraay.

**Gumbaynggirr:** The Gumbaynggirr (Kumbainggar, Gumbaingari, Kumbaingeri, Gambalamam) are a peoples indigenous to the mid-north coast of New South Wales.

**Gunai:** The Gunai (Gunnai, Kurnai) peoples are indigenous to southeastern Australia in Gippsland and the southern slopes of the Victorian Alps.

**Gunditjmara**: The Gunditjmara ("Gunditjamara" or "Dhauwurd Wurrung") are indigenous to southwest Victoria in Australia.

**Gundungurra:** The Gundungurra (Gundungarra, Gandangarra, Gandangara) people are indigenous to south-eastern New South Wales.

**Guringai:** The Guringai people (Kuringgai, Ku-ring-gai, Kuring-gai, Kuriggai) are indigenous to the Sydney Basin region of Australia.

**Jardwadjali:** The Jardwadjali (Yartwatjali, Jaadwa) are indigenous to the upper Wimmera River watershed in the state of Victoria in Australia.

**Jarildekald:** The Jarildekald (Yaraldi, Yarilde, Jaralde) are indigenous to southern Australia on the eastern side of Lake Alexandrina and the Murray River.

**Jinibara:** The Jinibara are indigenous to southeastern Queensland in Australia.

**Kala Lagaw Ya**: The Kala Lagaw Ya people are an Australian language group of the western, central, and Northern islands of the Torres Strait. Resources include:

- Hamacher, Duane W., Tapim, Alo, Passi, Segar, and Barsa John. Dancing With the Stars: Astronomy and Music in the Torres Strait. Ninth Conference on the Inspiration of Astronomical Phenomena, Sophia Centre Press, 2017.

**Kamilaroi**: The Kamilaroi people speak the Gamilaraay language and are indigenous to new South Wales to southern Queensland. You'll find ethnoastronomers calling them Kamilaroi and linguists calling them Gamilaraay, and some Kamilaroi are now calling themselves Gomeroi.

The Kamilaroi sky culture in Stellarium is the result of a Higher Degree Research project by Robert Fuller at Macquarie University, Sydney, finishing in 2014. Stellarium was chosen as a part of the project for Giving Back of the collected knowledge to the Kamilaroi and Euahlayi communities in the form of a documentary video (Star Stories of the Dreaming) and a student's Study Guide. Clips from the Stellarium were used in the documentary to illustrate certain sky objects.

**Karadjeri:** The Karadjeri people (Karajarri, Karadjari, Garadjui, Guaradjara) are indigenous to the state of Western Australia in the area of Roebuck Bay and inland to Broome.

**Kaurna:** The Kaurna (Coorna, Kaura, or Gaurna) peoples are indigenous to the Adelaide Plains of South Australia.

**Kokatha:** The Kokatha people live on the eastern part of the southern fringe of the Great Victorian Desert in Australia around Ooldea.

**Koori:** The Koori (Koorie, Goori, Goorie) people are indigenous to southern New South Wales. NOTE: Dawson (1900) lists the Pirt-Kopan-Noot peoples as well as the Koori in his records.

**Kukatja**: The Kukatja (Gugadja) people are indigenous to the Kimberley region of Western Australia.

**Kuku Yalangi:** The Kuku Yalangi (Gugu Yalangi, Kuku Yalandji, Kokojelandji) are indigenous to the rainforest regions of Far North Queensland.

**Kulin:** The Kulin people are an alliance of five indigenous Australian nations in south-central Victoria, Australia.

**Kunhanaamendaa**: The Kunhanaamendaa (Lardil) people are indigenous to Mornington Island in the Wellesley Islands chain in the Gulf of Carpentaria, Queensland.

**Larrakia:** The Larrakia or "Saltwater" people are indigenous to the area around Darwin in the Northern Territory of Australia.

**Luthigh**: The Luthigh (Lotiga, Okara) people are indigenous to the Cape York Peninsula of North Queensland, Australia.

**Mabuiag:** The Mabuiag (Mabuygiwgal, Mabuyag) are indigenous to the Torres Straits Islands, including Mabuiag Island.

**Marbarungal**: The Marbarungal (Marbarunga) are indigenous to North Queensland, Australia.

Much of what is recorded about them in Western literature stems from early colonial journals and classical anthropological studies—such as Émile Durkheim and Marcel Mauss's Primitive Classification—which documented how the clan's spiritual and social structures intertwined with the natural world.

**Marra:** The Marra are indigenous to the Northern Territory of Australia.

**Moporr:** The Moporr are indigenous to the southeastern state of Victoria in Australia.

**Meriam:** The Meriam people are indigenous to the islands of the Torres Strait including Mer (Murray Island), Ugar (Stephen Island) and Erub (Darnley Island).

**Murrawarri:** The Murrawarri are indigenous to a territory straddling the border of New South Wales and Queensland in Australia.

**Mutitjulu:** The Mutitjulu are indigenous to the Northern Territory of Australia at the eastern end of Urulu (Ayers Rock).

**Mua**: The Mua (Moa) are an indigenous Australian Torres Strait Island people based on Moa (Banks Island).

**Nuenone:** The Nuenone people are indigenous to Bruny Island, located off the southeastern coast of Tasmania.

**Ngalia:** The Ngalia people live on the western part of the southern fringe of the Great Victorian Desert in Australia around Ooldea.

**Ngarrindjeri:** The Ngarrindjeri (Narrindjeri, Yaraldi, Coorong) are indigenous to the lower Murray River, eastern Fleurieu Peninsula, and the Coorong of the southern-central area of South Australia.

**Ngiyampaa:** The Ngiyampaa (Ngemba) people are indigenous to the state of New South Wales in Australia.

**Ngolokwangga:** The Ngolokwangga (Ngulugwongga) people are indigenous to the Northern Territory of Australia.

**Noongar:** The Noongar (Noongah, Nyungar, Nyoongar, Nyungah, Nyugah, Yunga) are indigenous to the south-west corner of Western Australia, from Geraldton on the west coast to Esperance on the south coast.

**Nunkunu:** The Nunkunu (Nukunu) are indigenous to the Flinders Ranges in the Spencer Gulf area of Australia.

**Nyikina**: The Nyikina (Nyigina, Niykena, Njikena) people are indigenous to the Kimberley region of Western Australia and come from the lower Fitzroy River area.

**Palawa:** The Palawa (Palawa Kani, Pakana) people are indigenous to the island of Tasmania.

**Paredarerme**: The Paredarerme people were indigenous to the Oyster Bay and Big River areas of Tasmania.

**Peerapper**: The Peerapper (Pirapa) people were indigenous to the west coast of Tasmania from Macquarie Harbour north to Circular Head and Robbins Island.

**Pila Nguru:** The Pila Nguru people live on the southern fringe of the Great Victorian Desert in Australia around Ooldea.

**Pitjantjatjara:** The Pitjantjitjara are indigenous to the central Australian desert near Uluru.

**Pyemmairrerener:** The Pyemmairrerener are indigenous to the northeast area of Tasmania around Cape Portland and speak the Pyemmairre language.

**Ramindjeri:** The Ramindjeri (Raminjeri) people are part of the Ngarrindjeri people (see above), indigenous to the area around Encounter Bay and Goolwa in southern South Australia, including Victor Harbor and Port Elliot.

**Tharumba:** The Tharumba are indigenous to the Shoalhaven River area in the southern tablelands of New South Wales in Australia.

**Tiwi**: The Tiwi (Tunuvivi) people are indigenous to Bathurst and Melville Islands (the Tiwi Islands) near Darwin, Australia.

**Tommeginne**: The Tommeginne (Tommeeginnee) are indigenous to northern Tasmania.

**Toogee**: The Toogee people were indigenous to Western Tasmania and consisted of two groups, the Lowreenne and the Mimegin.

**Wakka Wakka:** The Wakka Wakka (Wakkawakka) peoples are indigenous to Queensland, Australia.

**Weilwan:** The Weilwan peoples (Wailwun, Wayilwan, Wailwan, Ngiyampaa Wailwan, Ngemba Wailwan) are indigenous to New South Wales in Australia and a clan of the Ngiyampaa nation.

**Wardaman:** The Wardaman peoples are indigenous to the area South-West of Katherine, Australia, on Menngen Aboriginal Land Trust in the Northern Territory of Australia

**Warlpiri:** The Warlpiri (Walpiri, Walbiri, Wailbri, Elpira, Ilpara, Yapa) people are indigenous to the Northern Territory of Australia, north and west of Alice Springs.

**Wergaia:** The Wegaia people are indigenous to the Mallee and Wimmera regions of north-Western Victoria. In the Wotjobaluk language they are known as the Maligundidj.

**Wiilman**: The Wiilman (Wilman, Wilmen, Wheelman) people are indigenous to the Wheatbelt, Great Southern, and South West regions of Western Australia.

**Wiradjuri:** The Wiradjuri peoples are indigenous to central New South Wales in Australia.

**Wirangu:** The Wirangu people are indigenous to the Western coastal region of South Australia.

**Worjobaluk:** The Worjobaluk peoples are indigenous to the state of Victoria and closely related to the Wergaia people.

**Worimi:** The Worimi people are indigenous to the Port Stevens and Great Lakes regions of coastal New South Wales.

**Wotjobaluk:** The Wotjobaluk people are indigenous to north-central Victoria in Australia.

**Wurundjeri**: The Wurundjeri people are indigenous to the Birrarung (Yarra River) Valley, but now are around Melbourne, Australia and are of the Woiwurrung language group.

**Yaegl:** The Yaegl (Yaygir, Yuraygir) people are indigenous to the area of Coffs Harbour in New South Wales.

**Yankunytjatjara:** The Yankunytjatjara are indigenous to the central Australian desert near Uluru.

**Yanyuwa**: The Yanyuwa people are indigenous to the coastal region of the Northern Territory of Australia on the Gulf of Carpentaria.

**Yirrkala:** The Yirrkala are a tribe of the Yolgnu people (see below) near the town of Mhulunbuy on the Gove Peninsula in the Northern Territory of Australia.

**Yolgnu**: The Yolgnu people inhabit northeastern Arnhem Land in the Northern Territory of Australia.

**Yuin**: The Yuin or Djuwin peoples are indigenous to the south coast of New South Wales in Australia.

## Central Asian:

This section includes sky cultures the central Asian region.

Resources include:

- Berezkin, Yuri. The Cosmic Hunt: Variants of a Siberian – North American Myth, January 2005, https://www.folklore.ee/folklore/vol31/berezkin.pdf

Cultures that I've listed in this section include the following:

**Altai:** The Altai (Altay, Altai-kizhi, Altailar) are a Turkic ethnic group indigenous to the Altai Republic of Siberia in Russia.

**Ban Raji:** The Ban Raji ("forest people") who also call themselves Bat Tou (Bot Tho) are indigenous to Uttarakhand, India, in the Himalayas.

**Bashkir:** The Bashkirs are a Kipchak Turkic ethnic group indigenous to Russia, concentrated in Bashkortostan.

**Buryat**: The Buryat (Buryaad, Buriad, Buriat) people are a Mongolic ethnic group indigenous to southeastern Siberia.

**Chuvash**: The Chuvash peoples are a Turkic ethnic group indigenous from the Volga-Ural region to Siberia, with most of them living in Chuvashia and surrounding areas.

**Dravidian**: The Dravidian people are an ethnolinguistic and cultural group indigenous to South India, Pakistan, Afghanistan, Bangladesh, the Maldives, Nepal, Bhutan, and Sri Lanka.

**Evens:** The Evens (Lamuts) people are indigenous to the regions of the Magadan Oblast and Kamchatka Krai and northern parts of Sakha east of the Lena River.

**Georgian:**

Resources include:

- Simonia, L. *Little known aspects of the history of Georgian astronomy*, Journal of Astronomical History and Heritage (ISSN 1440-2807), Vol. 4, No. 1, P. 59-74 (2001) https://adsabs.harvard.edu/full/2001JAHH....4...59S

**Kazakh:**

Resources include:

- Bekbassar, Nyssanbay. *Numerical, Geometric, and Orientation Properties of "Steppe Geoglyphs" in Kazakhstan*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 129.
- Bekbassar, Nyssan. *Pleiades in the Kazakh Ethnoastronomy*, XV Astronomy and Cosmology in Folk Traditions and Cultural Heritage, Kleipeda, Lithuania, 2007.
- Jaambayeva, B.A. *Cosmos of Kazakh Culture*, Editions du JIPTO, Académie Internationale CONCORDE et auteurs, 2019.
- Dulutuly, Mirzhakyp. *Astronomy is the most ancient of sciences*, Qazaqstan Tarihy, 2013, https://e-history.kz/en/seo-materials/show/29076
- *A short encyclopedia of Signs and symbols of Kazakh culture*, Kazakh Research Institute of Culture, 2023, https://encyclopedia.cultural.kz/en/zvezdy-i-pleyady/

- *The Celestial Hitching Post: How the North Star appeared in Kazakh Petroglyphs*, Qalam, 2024, https://qalam.global/en/articles/the-celestial-hitching-post-en

**Khakas:** Khakas (Khakass) people are Turkic people indigenous to Siberia in the republic of Khakassia, Russia.

**Khalasha**: The Kalasha (کاڵاشا, romanised: Kaḷaṣa; Kalasha-ala, Kalaṣa; Urdu: کالاش, or Kalash, also called Waigali or Wai) are a Dardic Indo-Aryan people indigenous to the Chitrai District of Khyber-Pakhtunkhwa province of Pakistan.

**Kyrgyz**: The Kyrgyz (Kirgiz, Kyrghyz, Kirghiz) people are a Turkic ethnic group native to Central Asia, primarily Kyrgystan.

**Mari**: The Mari (Mariytsy, Cheremisa, Cheremis) people are a Finnic people indigenous to the Volga and Kama River areas of Russia.

**Mongolian**: The Mongolians were influenced by contact with Seleucid and Chinese astronomy, their principal astronomer, mathematician, and viceroy in ancient times being Ulug Beg (aka Taraghay, 1394 – 1449 C.E.).

The Stellarium asterisms were contributed by two users of Stellarium, Anthony Lagain (anthony.lagain(at)gmail.com) and Batiste Rousseau (batiste.rousseau(at)gmail.com) mainly based on oral tales of numerous Mongolians met during a two month stay in Mongolia. To learn more about them: www.souslecieldemongolie.wordpress.com (in French).

Resources on Mongolian sky lore include:

- Elverskog, Johan. *The Mongolian Big Dipper Sutra*, Journal of the International Association of Buddhist Studies 29 Nr1 2006(2008), pp87-123.
- Roux, Jean-Paul. *Les astres chez les Turcs et les Mongols*, Revue de l'histoire des religions, Tome 195, Number 2, 1979, pp. 153-192.

Online resources include:

- L'Uranoscope de France: http://uranoscope.free.fr/DC2/index.php
- *Out Of Nowhere*, AstroMongolia: https://outofnowhere.asia/2018/02/20/astromongolia-exploring-mongolian-skies/

**Munda:** The Munda are an Austroasiatic ethnic group speaking the Mundari language who are indigenous to the south and east Chhotanagpur Plateau region of Jharkhand, Odisha, and West Bengal. They are also found in Madhya Pradesh and in portions of Bangladesh, Nepal, and the state of Tripura.

**Negidal:** The Negidal are indigenous to the Khabarovsk Krai in Russia, along the Amgun and Amur Rivers.

**Nenets**: The Nenets (Samoyed) people are indigenous to northern Arctic Russa.

**Siberian**: General information about Siberian sky culture is limited and is difficult to integrate. Resources on Siberian sky culture include:

- Dmitrieva, N.V. and Romeiko, V. A. Some *Ethnographical Aspects in the Study of the Tunguska Phenomenon: Its Reflection in the World View of the Evenks of Siberia*, in From Alexandria to Al-Iskandariya, Rappenglück, Michael A and Shaltout, Mossalam (Eds.), SEAC conference, Egypt, 2009.
- Karpenko, Ju.A. Nazvanija zvezdnogo neba. - M.: Nauka, 1981. - 184 s.

- Kubarev, Vladmir. *Myths and Rituals Impressed in Petroglyphs of the Altai*, Archaeology, Ethnology and Anthropology of Eurasia, Volume 3, Number 27, September 1, 2006, pp. 41-54. Svjatskij, D.O. Astronomija Drevnej Rusi. - M., 2007. - 664 s.
- Siimets, Ülo. *The Sun, the Moon and Firmament in Chukchi Mythology and on the Relations of Celestial Bodies and Sacrifice*, Folklore, Volume 32, 2006, pp. 129-156.
- Svjatskij, D.O. Pod svodom hrustal'nogo neba: Ocherki po astral'noj mifologii v oblasti religioznogo i narodnogo mirovozzrenija. Izd. 2-e M.: Knizhnyj dvor "LIBROKOM", 2011. - 192 s.
- Rut, M.E. Slovar' astronimov. Zvezdnoe nebo po-russki. - M.: AST-PRESS KNIGA, 2010. - 288 s.

The Siberian peoples include:

- **Chukchi:** The Chukchi (Chukchee) people are indigenous to the Chukchi Peninsula in Russia.
- **Evenk**: The Evenk (Ewenki, Evenki) are a Tungusic people of northern Asia.
- **Ket**: The Ket (exonym Ostyaks) are a Yeniseian people indigenous to Siberia.
- **Kamchadal**: The Kamchadal people are descendants of Siberians and aboriginal peoples (Itelmens, Ainu, Koryaks, Chuvans).
- **Khanty**: The Khanty (Khani, Khande, Kantek, exonym Ostyaks) are a Urgrian people indigenous to Khanty-Mansi Autonomous Okrug in Russia.
- **Koryak:** The Koryak (Koriak) peoples are indigenous to the area north of the Kamchatka Peninsula on the coasts of the Bering Sea in Russia.
- **Oroch**: The Oroch (Orochons, Orochis) are a Tungusic people speaking the Orochon language indigenous to eastern Siberia.
- **Selkup**: The Selkup (exonym Ostyak-Samoyeds) are a Samoyedic ethnic group indigenous to northern Siberia.
- **Teleut:** The Teleut are a Turkic people indigenous to Siberia around Kemerovo Oblast.
- **Udege**: The Udege (Udihe, Udekhe, Udeghe) are indigenous to the Primorsky Krai and Khabarovsk Krai regions of eastern Siberia in Russia.
- **Nganasan:** The Nganasan people are a Uralic people of the Taymyr Peninsula in northern Siberia.

**Slavic:**

Resources include:

- Ryan, William. *Curious star names in Slavonic literature*, Russian Linguistics, Volume 1, Number 2, November 1974, pp. 137-150.

**Tangut:** The Tangut were a Tibeto-Burman tribal union indigenous to the Western Xia dynasty.

**Telengit:** The Telengit (Telegut) people are indigenous to the Altai Republic of Russia.

**Tibetan**: Resources on Tibetan sky lore include:

- Johnson-Groh, Mara. *Stories of the Stars: The History and Folklore of Tibetan Ethnoastronomy*, Gustavus Adolphus College, Spring 2013.
- Tibetan Zodiac and Lunar Houses: https://web.ccsu.edu/astronomy/tibetan_zodiac.htm

**Tofalar:** The Tofalar (Tofa, Karagas) are a Turkic people indigenous to the Irkutsk Oblast in Russia.

**Tungus**: The Tungus people are indigenous to eastern Siberia.

**Tuvan:** The Tuvan (Tivalar, Tuva, Tannu) people are a Turkic group indigenous to Siberia.

**Ugrian:** The Ugrian (Ugor) people are the ancestors of the Hungarians, Khanty, and Mansi people of the Khanty-Mansy Autonomous Okrug of Russia.

**Ukrainian:**

The Ukrainians are an East Slavic people indigenous to Ukraine.

Resources include:

Ukrainian Constellations, Lysiak-Rudnytsky Ukranina Studies Program, https://www.youtube.com/watch?v=EbW8FHkRoXA

What Ukrainians have instead of the Great Bear's dipper: https://www.youtube.com/watch?v=MgHfz3J70NA&list=PLUZO6gSpMxIW9lYlSexn1m68sbn7JSsb3&index=9

**Uzbekistan:**

Resources include:

- Mozaffari, S. Mohammad, and Zotti, Georg. *A New Light on the Central Instrument of the Samarqand Observatory*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 124.
- Rahkmonov, F. Sh. *Cosmogonic Views of the Uzbek People (Based on the Example of Southern Uzbekistan),* Zien Jornal of Social Sciences and Humanities, 2024.

**Uyghur:** The Uyghur (Uighur, Uygur, Uigur) peoples are a Turkic ethnic group who originated in the Taklamakan Desert within the Tarim Basin.

**Yakut**: The Yakut or Sakha are a Turkic ethnic group who mainly live in the Republic of Sakha in the Russian Federation, with some extending into the Amur, Magadan, Sakhalin regions and the Taymyr and Evenk Districts of the Krasnoyarsk region.

**Yukaghir**: The Yukaghir (Yukagir) people are indigenous to the basin of the Kolyma River in Russia.

## Classical World:

This section includes cultures around the Mediterranean that contributed so many asterisms, many of which became modern IAU constellations. Many of these are ancient cultures.

**Akkadian:** The Akkadian empire was the first ancient empire of Mesopotamia after the Sumerian civilization, centered on the city of Akkad, and united Akkadian and Sumerian speaking peoples. After the fall of this empire two Akkadian speaking nations emerged: Assyria and Babylonia.

**Arami**: The Arameans were an ancient Semitic speaking people in the near East. Aram encompasses central regions of modern Syria.

**Babylonian**: The Babylonian sky culture was an inspiration for the later Greek sky culture which resulted in many of our modern IAU constellations. It was in use as early as the 12th century B.C.E. The earliest fragment known is from the 7th century BCE but the celestial data in the text suggests a much earlier origin of the observational base - most likely between -1350 and -1150. This fragment, written in the astronomical/astrological tradition, is the MUL.APIN, which consists of two large clay tablets:

- The first includes a "star catalogue" (a list of stars and asterisms) followed by three lists of heliacal risings and settings, a list of ziqpu (culminating asterisms), and the list of constellations in the lunar path.

- The second contains intercalary rules for the calendar, rules for the sundial, and rules for omina with six and five lists of different content. On the first tablet, there is the so called "star catalogue" (a list of names of stars and constellations), followed by three lists of heliacal risings and settings, a list of ziqpu (culminating) asterisms, and the list of constellations in the lunar path. The second tablet contains intercalary rules for the calendar, rules for the sundial and rules for omina (relations between gods and celestial bodies).

The longest list in the lexical tradition is the 24 tablets of the Sumerian-Akkadian series Urra = hubullu (~1000 B.C.E.), which has more than 10,000 entries.

We now possess Babylonian, Sumerian, and Akkadian star and asterism names in cuneiform texts spanning over 2,000 years, from the third millennium B.C.E. to the end of the use of cuneiform in the early first millennium C.E. However, no fully comprehensive or authoritative list for ancient Mesopotamians in any one time or place has ever been discovered. “Mul” is the Sumerian name for “star”, and in Akkadian this is “kakkabu”. The five principal periods of lists are:

(1) The Late Assyrian Period (circa 900-600 BCE)

(2) The Neo-Babylonian (Chaldean) Period (626-539 BCE)

(3) The Persian (Achaemenid) Period (539-331 BCE)

(4) Macedonian Period (331-circa 275 BCE)

(5) Seleucid (Hellenistic) Period (275 BCE - 116 CE)

The modern zodiac originated in Babylonian astronomy around 400 B.C.E. MUL.APIN doesn’t include a zodiac, but it does list a predecessor: the path of the Moon.

We have lists of Sumerian and Akkadian names of stars and asterisms in cuneiform texts from the 3rd millennium B.C.E. to the end of cuneiform in the early first millennium C.E. However, none of these lists was fully comprehensive and they were not standardized. Stars known to Mesopotamians varied from place to place and from one age to another. The longest list in the lexical tradition is the series is the Urra = hubullu or Ura = hubullu (24 tablets ~1000 B.C.E.), the longest in the astronomical/astrological tradition is the MUL.APIN. Most list asterisms and a few individual named stars. In the 1st-millennium BCE Sumerian names were not normally translated into Akkadian, but rather rendered in the original Sumerian as loan-words/scientific terms. In this World Asterisms list we’ve included asterisms and stars from lists from the following periods:

- The Late Assyrian Period (circa 900-600 BCE)
- The Neo-Babylonian (Chaldean) Period (626-539 BCE)
- The Persian (Achaemenid) Period (539-331 BCE)
- Macedonian Period (331-circa 275 BCE)
- Seleucid (Hellenistic) Period (275 BCE - 116 CE)

Susanne M. Hoffmann is the person responsible for the positioning of the Babylonian terms in the sky and the drawing of the stick figures for Stellarium. She used the following people as resources: Prof. i.R. Dr. Hermann Hunger (Assyriology, Vienna), Prof. Dr. Manfred Krebernik (Assyriology, Jena), Dr. Björn Voss (Manager of LWL Planetarium Münster and head of Society of German-speaking Planetariums), Dr. Monika Staesche (Manager of Planetarium am Insulaner, Berlin), Stefan Harnisch (Manager of Planetarium Jena).

Resources on Babylonian asterisms include:


- Adamson, Kathleen. *Iconography of Ishtar*. 1988 [Note: Unpublished PhD thesis].
- Anor, Netanel. *Is the Liver a Reflection of the Sky?,* ARAM, Volume 29, Number 1, 2017, pp. 195-206.
- Anscombe, Kate. *The Lion-Bull Combat,* February 1, 2005, Australasian Society for Classical Studies Conference, University of Otago.
- Anscombe, Kate. *The Lion-Bull Combat as an Astronomical Symbol in the Context of the Origin of the Constellations*. 2005 [Note: Unpublished (?) thesis for Master of Arts Degree, University of Otago (Dunedin, New Zealand). Approximately 140 pages; Call Number: 7LXG A.
- Anscombe, Kate. *The Signs of the Zodiac in Greek and Roman Art,* in Davidson, John and Connor, Jody [eds] July 2004,The Research in Classics for Higher Degrees in New Zealand Universities
- Beaulieu, Paul-Alain. *The Babylonian Man in the Moon*, Journal of Cuneiform Studies, Volume 51, 1999, pp. 91-99.
- Beaulieu, Paul-Alain., Frahm, Eckart., Horowitz, Wayne. and Steele, John. *The Cuneiform Uranology Texts. Drawing the Constellations,* 2018, Transactions of the American Philosophical Society Volume 107, Part 2.
- Belmonte Esteve, José Luis. *Nergal: The shaping of the god Mars in Sumer, Assyria, and Babylon*. Masters dissertation, University of Wales Trinity St. David, 2018.
- Bezold, Carl., Kopff, August. and Boll, Franz. *Zenit- und Aequartorialgestirne am babylonischen Fixsternhimmel*, 1913.
- Block, Yigal. and Horowitz, Wayne. *Ura = hubulla XXII: The Standard Recension*, Journal of Cuneiform Studies, Volume 67, 2015, pp. 71-125.
- Brack-Bernsen, Lis. *Astronomische Keilschrifttexte aus dem alten Mesopotamien*, inChristiane Thim-Mabrey, Lis Brack-Bernsen, and Daniela Täuber [eds.].2010 Naturwissenschaftliche Aussagen und sozial verantwortbare Entscheidungen. (pp. 261-302).
- Brack-Bernsen, Liz. *The "days in excess" from MUL.APIN. On the "first intercalation" and "water clock" schemes from MUL.APIN*, Centaurus, Volume 47, Number 1, 2005, pp. 1-29.
- Brack-Bernsen, Liz. *The Path of the Moon, the Rising Points of the Sun, and the Oblique Great Circle on the Celestial Sphere*, Centaurus, Volume 45, 2003, pp. 16-31.
- Breger, Gil. *The Ziqpu-stars and Cuneiform Knowledge: Meaning, Applications, Contexts*, 2019, Dissertation, Near Eastern Studies, UC Berkeley
- Breger, Gil. *Ziqpu-stars and Ziqpu-time: Between Observational and Schematic Astronomy*, 64th Rencontre Assyriologique Internationale: The Intellectual Heritage ofthe Ancient Near East (2018 July 16-20), University of Innsbruck.
- Brown, David. *Astronomy - Astrology in Mesopotamia*, Bibliotheca Orientalis [Leiden], Jaargang LVIII [Volume 58], Number 1/2, januari-april, 2001, pp. 41-59.)
- Brown, David. *Mesopotamian Planetary Astronomy-Astrology*, 2000, (pp. 287-303).
- Brown, David. *The Cuneiform Conception of Celestial Space and Time*, Cambridge Archaeological Journal, Volume 10, Number 1, 2000, pp. 103-122.
- Brown, David. *The Interactions of Ancient Astral Science*, 2018. (With contributions by Jonathon Ben-Dov, Harry Falk, Geoffrey Lloyd, Raymond Mercier, Antonio Panaino, Joachim Quack, Alexandra van Lieven, and Michio Yano).
- Brown, David. *The measurement of time and distance in the heavens above Mesopotamia, with brief reference made to other ancient astral sciences*, in: Morley, Iain. and Renfrew, Colin. [eds.],

The Archaeology of Measurement: Comprehending Heaven, Earth and Time in Ancient Societies, 2010.

- Bücher, F. *The Stars in the Path of the Moon: A Short History of the Names of the Zodiacal Signs*, 2010. [Unpublished doctoral dissertation, Universitat Wien.]
- Çağirgan, Galip. *Three more Duplicates to Astrolabe (4 resimle birlikte),* Belleten, Cilt [Volume]: XLVIII, Sayi [Issue]: 191,192, 1984, pp. 399-416.
- Casaburi, Maria. *Sumerian Astral Nomenclature and Alternations in Writing: The Case of Astrolabe B,* Annali dell'Instituto Universitario Orientale di Napoli, Volume 59, Number [Fascicolo] 1-4, 1999, pp. 405-408).
- Casaburi, Maria. Tre-stelle-per-ciascun(-mese). L'astrolabio B: edizione filologica, 2003.
- Chadwick, Robert. *Calendars, Ziggurats, and the Stars*, The Canadian Society for Mesopotamian Studies Bulletin (Toronto), Number 24, November 1992, pp. 7-24.
- Cooley, Jeffrey. *A Star is Born: Mesopotamian and Classical Catasterisms*, Humanitas, Fall, Volume 30, Issue 1, 2006, pp. 8-16).
- Cooley, Jeffrey. *An OB Prayer to the Gods of the Night*, in: Lenzi, Alan. (Editor). Reading Akkadian Prayers and Hymns, 2011, (Pages 71-83).
- Cooley, Jeffrey. *Poetic Astronomy in the Ancient Near East and Hebrew Bible: The Reflexes of Celestial Science in Ancient Mesopotamian, Ugaritic and Israelite Literature*, 2006. [Ph.D. thesis; Hebrew Union College - Jewish Institute of Religion.]
- Craig, James. (1899; Reprinted 1977). *Astrological-Astronomical Texts*.
- Crossen, Craig. *The Very Ancient Origins of the Water Constellations*, Sky & Telescope, Volume 129, Number 3, March 2015, pp. 36- 40).
- De Jong, Teije. *Astronomical dating of the rising star list in MUL.APIN*, Wiener Zeitschrift für die Kunde des Morgenlandes, Band 97, 2007, pp. 107-120.
- De Meis, Salvo. and Hunger, Hermann. *Astronomical Dating of "Observed" Events in the Star List V R 46*, Archiv für Orientforschung, Volume XLII and Volume XLIII, 1995, Pages 208-209.
- Dibon-Smith, Richard. *The Ibex: History of a Near Eastern Time Symbol, (no date)* in Dibon-Smith, Richard. New Ideas About the Past: Seven Essays in Cultural History.
- Etz, Donald. *A New Look at the Constellation Figures in the Celestial Diagram*, Journal of the American Research Center in Egypt, Volume 34, 1997, pp. 143-161).
- Fincke, Jeanette., and Horowitz, Wayne. *New Information about the ziqpu-Stars, the Sun, and Cubits Based on one New Tablet (BM 37373) and Some Previously Known Texts*, Journal of Near Eastern Studies, Volume 77, Issue 2, 2018, pp. 249-261).
- Florisoone, André. *Astres et constellations des Babylonians,* Ciel et Terre, Volume 67, 1951, pp. 153-169.
- Florisoone, André. Les origines chaldéennes du zodiaque, Ciel et Terre, Volume 66, 1950, pp. 256-268.
- Foxvog, Daniel. *Astral Dumuzi*, in Cohen, Mark. et al. [eds.], 1993, The Tablet and the Scroll: Near Eastern Studies in Honor of William W. Hallo. (pp. 103-108). Heeßel, Nils P. *Dating EAE*: *When was the Astrological Series Enūma Anu Ellil Created?* in Crisostomo, C. Jay., et. al. [eds.], 2018, The Scaffolding of Our Thoughts: Essays on Assyriology and the History of Science in Honor of Francesca Rochberg, 2018.

- Frahm, Eckart. Textual *Traditions in First Millennium BCE Mesopotamia between Reproduction, Adaptation, Commentary, and New Creation*, in: Bruhrer, Walter. [ed.] Schriftgelehrte Fortschreibungs- und Auslegungsprozesse, 2019, pp. 13-48.
- Freedman, Immanuel. *The Marduk Star Nēbiru*, Cuneiform Digital Library Bulletin 2015:3; Cuneiform Digital Library Initiative, Version: 8 November 2015.
- Galter, Hannes. and Scholz, Bernhard [eds.]. 1993, *Die Rolle der Astronomie in den Kulturen Mesopotamiens*.
- Geller, Markham. *Astronomy and Authorship*, Bulletin of the School of Oriental and African Studies, Volume LIII, Part 2, 1990, pp. 209-213.
- Geuthner, Paul. *Naissance et diffusion du zodiaque babylonien, présentation synthétique*, 2006.
- Giedion, Sigfried. *The Eternal Present: The Beginnings of Architecture*. (1964; Reprinted 1981).
- Gingerich, Owen. *The Origin of the Zodiac*, Sky and Telescope, Volume 67, Number 3, March 1984, Pages 218-220.
- Goldfarb, Amanda. *Reinterpreting Iconography with Astronomy*, Journal: Ancient Near Eastern Studies, Volume 50, 2013, pp. 215-236.
- Gomes de Almeida, Isabel, de Fátima Rosa, Maria. *The Moon Watching Over the Sun and Venus: Revisiting the Attributes and Functions of Nanna/Sîn in Mesopotamia*, in: Ur in the Twenty-First Century CE: Proceedings of the 62nd Rencontre Assyriologique Internationale at Philadelphia, July 11–15, 2016, Eisenbrauns, 2021, pp.91-104.
- Graßhoff, Gerd. *Normal Star Observations in Late Babylonian Astronomical Diaries*, in: Swerdlow, Noel. [ed.] *Ancient Astronomy and Celestial Divination*, 1999, pp. 97-147.
- Hallo, William. *MUL.APIN and the Names of Constellations*, in: van der Spek, J. [ed.], Studies in Near Eastern World View and Society, 2008, pp. 235-254
- Hartner, Willy. *Old Iranian Calendars*, in: Gershevitch, Ilya [ed.], The Cambridge History of Iran, Vol. 2: The Median and Achaemenian Periods, 1985,, pp. 714-792
- Hartner, Willy. *The Earliest History of the Constellations in the Near East and the Motif of the Lion-Bull Combat*, Journal of Near Eastern Studies, Volume XXIV, Pages 1-16, and Plates I-XVI.
- Haubold, Johannes., Steele, John., and Stevens, Kathryn. *Keeping Watch in Babylon: The Astronomical Diaries in Context*, 2019.
- Heeßel, Nils. Dating EAE. *When was the Astrological Series Enūma Anu Ellil Created?* in: Crisostomo, C. Jay. et al. (Editors). The Scaffolding of Our Thoughts. Essays on Assyriology and the History of Science in Honor of Francesca Rochberg, 2018, pp. 253-263.
- Heimpel, Wolfgang. *The Babylonian Background of the Term "Milky Way."* in: Behrens, Hermann. et al. [eds.], 1989, DUMU-E2-DUB-BA-A: Studies in Honor of Åke W. Sjöberg, pp. 249-252.
- Hobson, Russell. *The Exact Transmission of Texts in the First Millennium B.C.E.* 2009, Unpublished PhD thesis.
- Hoffmann, Susanne. *Analysing and visualising MUL.APIN – a witness of Babylonian astrometry*, XXXth General Assembly of the International Astronomical Union, Vienna, August 20-31, 2018.
- Hoffman, Susanne M. and Krebernik, Manfred. *Harmony and Symmetry: The Planetarium Babylonicum of MUL.APIN*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual

Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 158.

- Hoffmann, Susanne M. *Hipparchs Himmelsglobus*, 2017, Springer, Wiesbaden, New York.
- Hoffmann, Susanne M. *History of Constellations as Popularization of Uranometry*, 2017, in: Wolfschmidt, Gudrun [ed.]: Popularisierung der Astronomie, Nuncius Hamburgensis, Bd. 41, Hamburg.
- Hoffmann, Susanne. *The History of Positional Astronomy from the Babylonian Sources to their Interpretation by Hipparchus and Ptolemy*, 2015. [Unpublished doctoral dissertation]
- Hoffmann, Susanne M. Hoffmann and Krebernik. M. *What Do Deities Tell Us About the Celestial Positioning System*? 2018 in: Proceedings of the Rencontre Assyriologique Internationale, Inssbruck, 2018.
- Hollywood, Louise. *A Study of late Babylonian Planetary Records*, 2002. [Unpublished Master of Science thesis, Durham University].
- Horowitz, Wayne. and Wasserman, Nathan. *Another Old Babylonian Prayer to the Gods of the Night*, Journal of Cuneiform Studies, Volume 48, 1996, pp. 57-60.
- Horowitz, Wayne. *Astral Tablets in the Hermitage, Saint Petersburg*, Zeitschrift für Assyriologie und Vorderasiastische Archäologie, Volume 90, Issue 2, January 2000, pp. 194-206.
- Horowitz, Wayne. *Astrolabes, Babylonian*, in: Bagnall, Roger. et. al. [eds.], The Encyclopedia of Ancient History, 2012.
- Horowitz, Wayne. *Mesopotamian Cosmic Geography*, 1998, 2nd ed. 2011
- Horowitz, Wayne. *Mesopotamian Cosmogony and Cosmology*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1823.
- Horowitz, Wayne. *Mesopotamian Star Lists*, in: Ruggles, Clive. [ed.]. Handbook of Archaeoastronomy and Ethnoastronomy, 2014, Part XI, Pages 1829-1833).
- Horowitz, Wayne. Stars, *Cows, Semicircles and Domes*, in: Horowitz, Wayne., Gabbey, Uri., and Vukosavović, Filip. (Editors). A Woman of Valor: Jerusalem Ancient Near Eastern Studies in Honor of Joan Goodnick Westenholz, 2010.
- Horowitz, Wayne. *Some Thoughts on Sumerian Star-Names and Sumerian Astronomy*, in: Sefati, Yitzhak. et. al. (Editors). An Experienced Scribe Who Neglects Nothing: Ancient Near Eastern Studies in Honor of Jacob Klein, 2005, pp 163-178.
- Horowitz, Wayne. and Al-Rawi, Farouk. *Tablets from the Sippar Library IX. A Ziqpu-Star Planisphere*, Iraq, Volume LXIII [63], 2001, pp. 171-181.
- Horowitz, Wayne. *The Mesopotamian Wind-Star Directions and a Compass Card from Uruk*, Journal of Skyscape Archaeology, Volume 1, Number 2, 2015, pp. 199-216.
- Horowitz, Wayne. *The Akkadian Name for Ursa Minor: mul.mar.gíd.da.an.na = eriqqi same/samami*, Zeitschrift für Assyriologie und Vorderasiastische Archäologie, Volume 79, 1989, pp. 242-244.
- Horowitz, Wayne. *The Astrolabes: An Exercise in Transmission, Canonicity, and Para-Canonicity*, in: Banks, Michaela et al. (Editors). Between Text and Text: The Hermeneutics of Intertextuality in Ancient Cultures and Their Afterlife in Medieval and Modern Times, 2013, pp. 273-287.
- Horowitz, Wayne. *The Astrolabes: Astronomy, Theology, and Chronology*, in: Steele, John. (Editor). Calendar and Years: Astronomy and Time in the Ancient Near East, 2007, pp. 101-113).
- Horowitz, Wayne. *The Reverse of The Neo-Assyrian Planisphere* CT 33, 11. in: Galter, Hannes. and Scholz, Bernhard. (Editors). Die Rolle der Astronomie in den Kulturen Mesopotamiens, 1993, pp. 149-159.

- Horowitz, Wayne. *Two Mul.Apin Fragments*, Archiv fur Orientforschung, Band 36/37, 1989, pp. 116-117).
- Horowitz, Wayne. *Two New Ziqpu-Star Texts and Stellar Circles*, Journal of Cuneiform Studies, Volume 46, 1994, pp. 89-98.
- Hunger, Hermann [ed.] *Astrological Reports to Assyrian Kings*, 1992.
- Hunger, Hermann. and Pingree, David. *Astral Sciences in Mesopotamia*, 1999.
- Hunger, Hermann. *Astronomical Dating of "Observed" Events in the Star List V R 46*, Archiv für Orientforschung, Zweiundvierzigster und Dreiundvierzigster Band [Band 42-43], 1995, pp. 208-209.
- Hunger, Hermann. *Stars, Cities and Predictions*, in: Burnett, Charles. et. al. (Editors). Studies in the History of the Exact Sciences in Honour of David Pingree, 2004, pp. 16-32.
- Hunger, Hermann. and Hübner, Wolfgang. *Constellations*, in: Cancik, Hubert. and Sneider, Helmuth. [eds.], Brill's New Pauly, Antiquity, Vol. 4 (Cyr - Epy), 2004, Columns 1187-1194.
- Hunger, Hermann. *How to Make the Gods Speak: A late Babylonian tablet related to the Microzodiac*, in: Roth, Martha. et. al. (Editors). Studies Presented to Robert D. Biggs, June 4, 2004. (Pages 141-151).
- Hunger, Hermann. *Mul.Apin*, in: Bagnall, Roger. et. al. [eds.], The Encyclopedia of Ancient History, 2012.
- Hunger, Hermann. and Pingree, David. *Mul.Apin: An Astronomical Compendium in Cuneiform*, 1989.
- Hunger, Hermann and Steele, John. *The Babylonian Astronomical Compendium MUL.APIN*, 2018, Routledge, London/New York.
- Hunger, Hermann. *The Relation of Babylonian Astronomy to its Culture and Society*, in: Valls-Gabaud, D. and Boksenberg, A. [eds.], The Role of Astronomy in Society and Culture, Proceedings of the IAU Symposium No. 260, 2009., pp. 62-73.
- Huxley, Margaret. *The Shape of the Cosmos According to Cuneiform Sources*, Journal of the Royal Asiatic Society, Third Series, Volume 7, 1997, pp. 189-198.
- Ignace, Gelb et al. [eds.] *Chicago Assyrian Dictionary*, 1964.
- Iwaniszewski, Stanislaw. *Archaeoastronomical Analysis of Assyrian and Babylonian Monuments: Methodological Issues*, Journal for the history of Astronomy, Volume 34, Part 1, February, Number 114, 2003,, pp. 79-93).
- Jones, Alexander. *A Study of Babylonian Observations of Planets Near Normal Stars*, Archive for History of Exact Sciences, Volume 58, Number 6, September, 2004, pp. 475-536.
- Jones, Alexander. *Transmission of Babylonian Astronomy to Other Cultures*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1877.
- Kasak, Enn. and Veede, Raul. Understanding Planets in Ancient Mesopotamia, Folklore (Electronic Journal of Folklore), Volume 16, 2001, pp. 7-33) http://www.folklore.ee/folklore/vol16/planets.pdf
- Kelley, David. and Milone, Eugene (Gene). *Exploring Ancient Skies: An Encyclopedic Survey of Archaeoastronomy*, 2005; 2nd edition 2011.
- Klein, Jacob. and Sefati, Yitschak. *The "Stars (of) Heaven" and Cuneiform*, in: Sassmannshausen, Leonard. (Editor). He Has Opened Nisiba's House of Learning, 2013.

- Koch-Westenholz, Ulla. *Mesopotamian Astrology: An Introduction to Babylonian and Assyrian Celestial Divination,* 1995.
- Kraus, Rolf. *Astronomy and Chronology*- Babylonia, Assyria, and Egypt, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 31.
- Krupp, Ed. *Hard Rain*, Sky and Telescope, Volume 100, Number 5, November 2000, pp. 93-95.
- Krupp, Ed. *In the Wake of Heaven's Gate*, Sky and Telescope, Volume 94, Number 3, September, 1997, pp. 80-81).
- Kurtik, Gennady. *mulUZ3, mul dGula, and the Early History of Mesopotamian Constellations*, Journal for the History of Astronomy, Volume 50, Issue 3, August 2019, pp. 339-359).
- Kurtik, G., Militarev, A. *Once more on the origin of Semitic and Greek star names: an astronomic-etymological approach updated*, Culture and Cosmos, Volume 9, Issue 1, 2005, pp. 3-43.
- Kurtik, G. *The identification of Inanna with the planet Venus: a criterion for the time determination of the recognition of constellations in ancient Mesopotamia*, Astronomical and Astrophysical Transactions, Volume 17, 1999, pp. 501-513.
- Laffitte, Roland. *Le point sur l'origine Mésopotamienne du signe du Bélier*, in: Cahiers de l'Institut du Proche-orient Ancien du Collége de France, I. Centre et Périphérie Approches Nouvelles des Orientalistes, 2007, pp. 101-108.
- Laffitte, Roland. *Naissance et diffusion du zodiaque mésopotamien*, 2007.
- Laffitte, Roland. *Précisions sur l'origine des noms des signes du zodiaque*, Bulletin de la SELEFA, Number 7, 1er semester, 2006, pp. 1-10.
- Laffitte, Roland. *Sur l'origine du nom de la constellation de la Vierge*, Journal asiatique, Tome CCIXII, Numbers 1 and 2, 2004.
- Lambert, Wilfred. *Babylonian Astrological Omens and Their Stars*, Journal of the American Oriental Society, Volume 107, Number 1, January – March 187, pp. 93-96.
- Landsberger, Benno. and Wilson, John. *The Fifth Tablet of Enuma Elis*, Journal of Near Eastern Studies, Volume 20, 1961, pp. 154-179.
- Lenzi, Alan. *Material, Constellation, Image, God*: *The Fate of the Chosen Bull According to kar 50 and Duplicates*, in Crisostomo, C. Jay., et. al. [eds.], 2018, The Scaffolding of Our Thoughts: Essays on Assyriology and the History of Science in Honor of Francesca Rochberg.
- Lukács, Béla, and Szűcs-Csillik, Iharka. *Sulgi's Eclipse*, in Šprajc, Ivan, and Pehani, Peter, eds. *Ancient Cosmologies and Modern Prophets,* Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 471.
- McHugh, John. *How Cuneiform Puns Inspired Some of the Bizarre Greek Constellations and Asterisms*, Archaeoastronomy and Ancient Technologies, Volume 4, Number 2, 2016, pp. 69-100.
- Miller, Frederic. et al. [Eds.]. *Babylonian Astronomy*, 2009, Alphascript Publishing.
- Mitchell, Terence. and Searight, Ann. *Catalogue of the Western Asiatic Seals in the British Museum*, Stamp Seals III [Vol. 3], 2008, pp. 11-14.
- Oelsner, Joachim. and Horowitz, Wayne. *The 30-Star-Catalogue HS 1897 and The Late Parallel BM 55502*, Archiv für Orientforschung, Band XLIV und Band XLV (Band 44/45), 1997, pp. 176-185.
- Ossendrijver, Mathieu. *Translating Babylonian Astronomical Diaries and Procedure Texts,* in: Annette Warner-Imhausen and Tanja Pommerening [eds.], Translating Writings of Early Scholars

in the Ancient Near East, Egypt, Greece and Rome. Methodological Aspects with Examples, 2016, pp. 125-172.

- Ossendrijver, Mathieu. *Babylonian Mathematical Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1863.
- Parpola, Simo. *Letters from Assyrian and Babylonian Scholars*, 1993.
- Parpola, Simo. *Letters from Assyrian Scholars to the Kings Esarhaddon and Assurbanipal*, 2007.
- Peters, Celeste. *The Mesopotamians Astrologer's Universe*: Celestial and Terrestrial, Bulletin of the Canadian Society for Mesopotamian Studies, Volume 23, 1992, pp. 33-44).
- Pingree, David. and Walker, Christopher. *A Babylonian Star Catalogue: BM 78161*, in: Leichty, Erle. (Editor-in-Charge). A Scientific Humanist: Studies in Memory of Abraham Sachs, 1988, pp. 313-322.
- Polcaro, Andrea, González-García, A. César, and Belmonte, Juan Antonio. *The Orientation of the Bronze Age Temple of Pella, Jordan: The Dying God Baal and the Rituals of the Summer Solstice*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 481.
- Porada, Edith. *On the Origins of "Aquarius*." in: Rochberg-Halton, Francesca. (Editor). Language, Literature, and History: Philological and Historical Studies Presented to Erica Reiner, 1987, pp. 279-291.
- Postgate, Nicholas. *Mesopotamian Petrology: Stages in the Classification of the Material World,* Cambridge Archaeological Journal, Volume 7, Number 2, October 1997, pp. 205-224
- Reiner, Erica. *A Sumero-Akkadian Hymn of Nanâ,* Journal of Near Eastern studies, Volume 33, Number 2, April, 1974, pp. 221-236.
- Reiner, Erica. *Astral Magic in Babylonia*, 1995.
- Reiner, Erica. and Pingree, David. *Babylonian Planetary Omens 2,* 1981.
- Reiner, Erica. and Pingree, David *Babylonian Planetary Omens: Part Four*, 2005.
- Reiner, Erica. and Civil, Miguel. *Materials for the Sumerian Lexicon II,* 1974.
- Reiner, Erica. *The Uses of Astrology,* Journal of the American Oriental Society, Volume 105, Number 4, October- December 1985, pp. 589-595.
- Reynolds, Frances. *Stellar Representations of Tiāmat and Qingu in a Learned Calendar Text*, in: van Lerberghe, Karel. and Voet, Gabriela. (Editors). Languages and Cultures in Contact: At the Crossroads of Civilizations in the Syro-Mesopotamian Realm, 1999, pp. 369-378.
- Roaf, Michael. and Zgoll, Annette. , Zeitschrift für Assyriologie und Vorderasiastische Archäologie, Band 91, 2001, pp. 264-295.
- Rochberg-Halton, Francesca. *Aspects of Babylonian Celestial Divination: The Lunar Eclipse Tablets of Enuma Anu Enlil*, 1988. [Doctorate dissertation].
- Rochberg, Francesca. *God-talk and Star-talk in Cuneiform and its Legacy in Later Antiquity*, in: Stackert, Jeffrey., Porter, Barbara., and Wright, David. (Editors). Gazing on the Deep: Ancient Near Eastern, Biblical, and Jewish Studies in Honor of Tzvi Abusch, 2010, pp.189-200.
- Rochberg, Francesca. *Mesopotamian Cosmology*, in: Snell, David. (Editor). A Companion to the Ancient Near East, 2005, pp.316-329).
- Rochberg, Francesca. *Personifications and Metaphors in Babylonian Celestial Omina*, Journal of the American Oriental Society, Volume 116, Number 3, July-September, 1996, pp. 475-485.

- Rochberg, Francesca. *Sheep and Cattle, Cows and Calves: The Sumero-Akkadian Astral Gods as Livestock,* in: Melville, S. and Slotsky, Alice [eds.] Opening the Tablet Box: Near Eastern Studies in Honor of Benjamin R. Foster, 2010.
- Rochberg-Halton, Francesca. *Stellar Distances in Early Babylonian Astronomy: A New Perspective on the Hilprecht Text (HS 229)*, Journal of Near Eastern Studies, Volume 42, 1983, pp. 209-217).
- Rochberg, Francesca. *The Expression of Terrestrial and Celestial Order in Ancient Mesopotamia*, in: Talbert, Richard. (Editor). Ancient Perspectives: Maps and Their Place in Mesopotamia, Egypt, Greece, and Rome, 2012, pp. 9-46.
- Rochberg, Francesca. *These Bones Live*! KNOW: A Journal on the Formation of Knowledge 1, Number 1, Spring, 2017, pp. 67-83.
- Rogers, John H. *Origins of the Ancient Constellations*. Feb 1998, Journal of the British Astronomical Association, Vol. 108, No. 1, pg. 9 – 28.
- Roughton, Norbert., Steele, John. and Walker, Christopher. *A Late Babylonian Normal and Ziqpu Star Text*, Archive for History of Exact Sciences, Volume 58, Number 6, September, 2004, pp. 537-572.
- Roughton, Norbert. and Canzoneri, G. *Babylonian Normal Stars in Sagittarius*, Journal of the History of Astronomy, Volume XXIII, 1992, pp. 193-20).
- Roughton, Norbert. *A Study of Babylonian Normal-Star Almanacs and Observational Texts*, in: Steele, John and Imhausen, Annette. (Editors). Under One Sky: Astronomy and Mathematics in the Ancient Near East, 2002, pp. 367-378.
- Rutz, Matthew. *Astral Knowledge in an International Age: Transmission of the Cuneiform Tradition, ca. 1500–1000 B.C*. in: Steele, John. (Editor). The Circulation of Astronomical Knowledge in the Ancient World, 2016, pp. 18-54.
- Sachs, Abraham. and Hunger, Hermann. *Astronomical Diaries and Related Texts from Babylonia. Volume 1. Diaries from 652 B.C. to 262 B.C.*, 1988.
- Sachs, Abraham. *Babylonian Observational Astronomy*, in: Hodson, Frank. (Editor). The Place of Astronomy in the Ancient World, 1974, 43-50.
- Sanders, Seth L. *The Standing and Sitting Asterisms of Ekur*, University of California, 2023.
- Schaefer, Bradley. *The Latitude and Epoch for the Origin of the Astronomical Lore of Eudoxus*, Journal for the History of Astronomy, Volume 35, Number 2, 2004, pp. 161-223.
- Seidl, Ursula. *Die Babylonischen Kudurru-reliefs: Symbole Mesopotamischer Gottheiten*, 1989.
- Shepperson, Mary. *Sunlight and Shade in the First Cities: A Sensory Archaeology of Early Iraq*, 2017.
- Slanski, Kathryn. *Classification, Historiography and Monumental Authority: The Babylonian Entitlement Narus (Kudurrus)*, Journal of Cuneiform Studies, Volume 52, 2000, pp. 95-114.
- Sortysiak, Arkadiusz. *ADAPA, ETANA and GILGAMEŠ- Three Sumerian Rulers Among the Constellations*, Department of Historical Anthropology, Institute of Archaeology, Warsaw University, Poland
- Steele, John. *A Late Babylonian Compendium of Calendrical and Stellar Astrology*, Journal of Cuneiform Studies, Volume 67, 2015, pp. 187-215.
- Steele, John. and Gray, Jennifer. *A Study of Babylonian Observations Involving the Zodiac*, Journal for the History of Astronomy, Volume xxxviii [38], Issue 4, November, 2007, pp. 443-458.
- Steele, John M. *Babylonian Observational and Predictive Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1855.

- Steele, John M. *Late Babylonian Astrology*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1871.
- Steele, John. *Late Babylonian Ziqpu-Star Lists*, in: Bawanypeck, Daliah. and Imhausen, Annette. (Editors). Traditions of Written Knowledge in Ancient Egypt and Mesopotamia, 2014, pp. 123-151.
- Steele, John. *Mesopotamian Astrological Geography*, in: Barthel, Peter., and van Kooten, George. (Editors). The Star of Bethlehem and the Magi, 2015, pp. 201-216.
- Steele, John M. *Mesopotamian Calendars*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1843.
- Steele, John. *Rising Time Schemes in Babylonian Astronomy*, 2017.
- Steele, John [ed.] *The Circulation of Astronomical Knowledge in the Ancient World*, 2016.
- Steinkeller, Piotr. *Of Stars and Men: The Conceptual and Mythological Setup of Babylonian Extispicy*, in: Gianto, Agustinus. (Editor). Biblical and Oriental Essays in Memory of William L. Moran, 2005, pp. 11-47.
- Stephenson, Francis. and Walker, Christopher [eds.] *Halley's Comet in History*, 1985.
- Stol, Marten. 48) LBAT 1499-1, N.A.B.U. Nouvelles Assyriologiqes Brèves et Utilitaires, Number 3, septembre, 2005, pp. 55-56.
- Taub, Liba. Where Did Astronomy 'Sit' in Ancient Greek and Roman Culture?, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 11.
- Tiede, Vance. *Ziggurats of Mesopotamia: An Astro-Archaeological Analysis*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 159.
- Thierens, A. E. *Astrology in Mesopotamian Culture*, 1935
- Tuman, Vladimir. *An attempt to Date Text 3 of Enuma Anu Enlil, Tablets 50-51: "Tentative date December 2, - 1878,* Archive for History of Exact Sciences, Volume 46, 1993, pp. 95-103.
- Tuman, Vladimir. *Astronomical Dating of Mul.Apin Tablets*, in: Charpin, Dominique and Joannès, F. [eds.], La circulation des biens, des persons et des idées dans le Proche-Orient ancien: Actes de la XXXVIIIe Recontre Assyriologique Internationale (Paris, 8-10 juillet 1991), pp. 397-414.
- Tuman, Vladimir. *Astronomical dating of the Kudurru, IM-80908*, Sumer, Volume 46, Numbers 1/2, 1989, pp. 98ff.
- Tuman, Vladimir. *Astronomical Dating of Mul-Apin Tablets*, Journal of Assyrian Studies, Volume VI, Number 1, 1992.
- Tuman, Vladimir. *Astronomical Dating of Observed and Recorded Events in the Astrolabe V R 46*, in: Galter, Hannes. and Scholz, Bernhard. (Editors). Die Rolle der Astronomie in den Kulturen Mespotamiens, 1993, pp. 199-209).
- Tuman, Vladimir. Kudurru *# SB 25 At the Louvre Museum Represents The Summer Solstice Festival June 22, 1203 B.C.,* Bulletin of the American Astronomical Society, Vol. 19, 1987, pg. 652.
- Tuman, Vladimir. and Hoffman, Robert. *Rediscovering the Past: Application of Computers to the Astronomical Dating of Kudurru SB22 of the Louvre Museum*, Archeoastronomy: The Journal of the Center for Archaeoastronomy, Volume X, 1987, pp. 124-138.

- Van der Waerden, Bartel. *Mathematics and Astronomy in Mesopotamia*, in: Gillespie, Charles. (Editor in Chief). Dictionary of Scientific Biography. Volume XV. Supplement I, 1978, pp. 667-680.
- Verderame, Lorenzo. Astronomy, *Divination, and Politics in the Neo-Assyrian Empire*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1847.
- Verderame, Lorenzo. *Mesopotamian Celestial Divination*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1835.
- Verderame, Lorenzo. *Pleiades in ancient Mesopotamia*, SEAC conference Rome 2015.
- Verderame, Lorenzo. *Pleiades in Ancient Mesopotamia*, Mediterranean Archaeology and Archaeometry, Volume 16, Number 4, 2016, pp. 109-117.
- Verderame, Lorenzo. *The Primeval Zodiac: Its Social, Religious, and Mythological Background*, in: José Rubiño-Martín, et al. (Editors). Cosmology Across Cultures, 2009, pp. 151-156.
- Walker, Christopher. *The Dalbanna Text: A Mesopotamian Star-List*, Die Welt des Orients, Volume 26, 1995, pp. 27-42.
- Walker, Christopher. *The Myth of Girra and Elamatum*, Anatolian Studies, Volume XXXIII, 1983, pp. 145-152.
- Wallenfels, Ronald. *Uruk: Hellenistic Seal Impressions*, in the Yale Babylonian Collection, Vol. I, Cuneiform Tablets, 1994.
- Wallenfels, Ronald. *Zodiacal Signs among the Seal Impressions from Hellenistic Uruk*, in: Cohen, Mark. et al. (Editors). The Tablet and the Scroll: Near Eastern Studies in Honor of William W. Hallo, 1993, pp. 281-289).
- Watson, Rita. and Horowitz, Wayne. *Writing Science before the Greeks: A Naturalistic Analysis of the Babylonian Treatise MUL.APIN*, 2011.
- Wee, John. *A Late Babylonian Astral Commentary on Marduk's Address to the Demons*, Journal of Near Eastern Studies, Volume 75, Number 1, 2016, pp. 127-167.
- Wee, John. *Discovery of the Zodiac Man in Cuneiform*, Journal of Cuneiform Studies, Volume 67, 2015, pp. 217-233).
- Wee, John. *Measurements in Babylonian Drawings of Planets and Star Constellations*, 24th International Congress of History of Science, Technology and Medicine, Manchester, 22-28 July 2013.
- White, Gavin. *Babylonian Star-lore: An Illustrated Guide to the Star-lore and Constellations of Ancient Babylonia*, 2008.
- Wolfschmidt, Gudrun [ed.], *Popularisierung der Astronomie, Nuncius Hamburgensis*, 2017, Hamburg. Further publications are in preparation (e.g., together with M. Krebernik for the proceedings of the Rencontre Assyriologique Internationale 2018).
- Younger Junior, K. Lawson. *Another Look at an Aramaic Astral Bowl*, Journal of Near Eastern Studies, Volume 71, Number 2, October 2012, Pages 209-230.
- Zbikowska, Izabela. *Discovery of Planets Reflected in Cuneiform Religious Texts: Jupiter and First Zodiacal Concepts*, Vistas in Astronomy, Volume 39, Number 4, 1995, pp. 715-716.


Online resources include:


- Anthony, Hope. *A Guide to Ancient Near Eastern Astronomy*, 1996. (Website now offline but contents can be found on Gary Thompson's site, below).
- Thompson, Gary D. Mesopotamian Star Lists and Star Names in the First Millennium B.C.E.: http://members.westnet.com.au/gary-david-thompson/page9r.html

**Boeotian:** This is a region in the central part of Greece, named for the mountain Boeon.

**Chaldean:** Chaldea was a kingdom that existed between the late 10th or early 9th and mid-6th centuries B.C.E., after which it was assimilated into Babylonia.

**Egyptian**: Early Egyptian astronomy can be determined from sources such as "star ceilings" in tombs. The earliest example is the tomb of Senenmut in Thebes (c. 1450 B.C.E.). The Pyramid texts are from the tombs of the 5th Dynasty pharaoh Unas: The ceiling depicts stars and the hieroglyphs on the surrounding walls describe his journey into the sky. Late Egyptian astronomy was heavily influenced by the works of Ptolemy thanks to the Seleucids taking control of the country, and examples such as the Zodiac of Dendera at the temple at Hathor at Dendera dates from around 30 B.C.E. and depicts their sky. Karrie Berglund of Digitalis Education Solutions, Inc. created the Stellarium asterisms based on the paper "A Map of the Ancient Egyptian Firmament" by Juan Antonio Belmonte.

Resources on Egyptian sky lore include:

Publications:


- Abdel-Hadi, Yasser A. and Yehia, Maha. *Astronomical Interpretation of the Winding Canal in the Pyramid Texts*, in Rappenglück, Michael A. and Shaltout, Mossalam (eds.), *From Alexandria to Al-Iskandaryiya, Astronomy and Culture in the Ancient Mediterranean and Beyond*, 2009, pg. 26.
- Ainsworth, Theresa. *A Timeline of the Decans: From Egyptian Astronomical Timekeeping to Greco-Roman Melothesia*, Master's Thesis, Queens' University, September 2018.
- Allen, David. *An Astronomer's Impression of Ancient Egyptian Constellations*, Sky and Telescope, Volume 54, 1977, pp. 15-19.
- Allen, James P. *Egyptian Cosmology and Cosmogony*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1471.
- Allen, Troy., Beatty, Mario., Carr, Greg. and Watkins, Valethia. *The Celestial Sphere in ancient Egypt*, ANKH, Numbers 4/5, 1995-96, pp. 214-221.
- Aubourg, Éric. *La date de conception du zodiaque du temple d'Hathor à Dendérah*, Bulletin de l'Institut Français d'Archéologie Orientale du Caire, numéro 95, 1995, pp. 1-10.
- Belmonte, Juan. and Shaltout, Mosalam. [eds.]. *In Search of Cosmic Order: Selected Essays on Egyptian Archaeoastronomy*, 2010.
- Belmonte, Juan Antonio. *The Decans and Ancient Egyptian Skylore: An Astronomer's Approach*, Memorie della Società Astronomica Italiana, Volume 73, Special Number 1, 2000, pg. 43.
- Belmonte, Juan Antonio. *DNA, Wine & Eclipses: The Dakhamunzu Affaire*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 419.
- Belmonte, Juan Antonio. *Karnak*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1531.
- Belmonte, Juan Antonio. *Orientation of Egyptian Temples: An Overview*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1501.
- Belmonte, Juan. and Shaltout, Mosalam. *The Astronomical Ceiling of Senenmut: a Dream of Mystery and Imagination*, in: Zedda, Mauro. and Belmonte, Juan. [eds.], Lights and Shadows in Cultural Astronomy, 2007, pp. 145-154.
- Belmonte, Juan. *The Decans and the Ancient Egyptian Skylore: An Astronomical Approach*, Memorie della Societa Astronomica Italiana, Volume 73 (Special Volume 1), 2002.

- Belmonte Avilés, Juan. *A Celestial Map of the Ancient Egyptian Firmament*, in: BAR International Series, 1154, 2003, pp. 31-36.
- Belmonte Avilés, Juan. *The Ramesside star clocks and the ancient Egyptian constellations*, in: Blomberg, Mary., Blomberg, Peter., and Henriksson, Göran. (Editors). Calendars, Symbols, and Orientations: Legacies of Astronomy in Culture, 2003, pp. 57-65).
- Ben-Dov, Jonathan. *A Jewish Parapegma? Reading 1 Enoch 82 in Roman Egypt*, in: Stern, Sacha. and Burnett, Charles. (Editors). Time, Astronomy, and Calendars in the Jewish Tradition, 2013, pp.1-26).
- Berio, Alessandro. *The Celestial River: Identifying the Ancient Egyptian Constellations*, Dec. 2014, Sino-Platonic Papers, No. 253, Dept. of East Asian Languages and Civilizations, University of Pennsylvania.
- Blackwell, Patricia., Talcott, Gary. and Talcott, Richard. *Stargazing in ancient Egypt*, Astronomy Magazine, Number 6, June 2010, pp. 64-66.
- Bradshaw, Joseph. *The Imperishable Stars of the Northern Sky in the Pyramid Texts*, 1990.
- Bradshaw, Joseph. *The Night Sky in Egyptian Mythology*, 1979.
- Buchwald, Jed. *Egyptian Stars Under Paris Skies*, Engineering & Science, Volume LXVI, Number 4, 2003, pp. 20-31.
- Buchwald, Jed. and Josefowicz, Diane. *The Zodiac of Paris*, 2010.
- Campion, Nicholas. *The Dawn of Astrology: A Cultural history of Western Astrology. Volume 1: The Ancient and Classical Worlds*, 2008.
- Cauville, Sylvie. *Le zodiaque d'Osiris*, 1997.
- Christiansen, H. *Decanal Star Tables for Lunar Houses in Egypt*? Centaurus, Volume 35, 1992, pp. 1-27.
- Clagett, Marshall. *Ancient Egyptian Science. Volume II. Calendars, Clocks, and Astronomy*, 1995.
- Davis, Virginia. *Identification of the Ancient Egyptian Constellations*, Archaeoastronomy, Volume 6, Numbers 1-4, 1983, pg. 8.
- Davis, Virginia. *Identifying Ancient Egyptian Constellations,* Archaeoastronomy, Number 9, Pages S102-S104; Supplement to the Journal of the History of Astronomy, Volume 16, 1985.
- Depuydt, Leo. *Ancient Egyptian star tables: A reinterpretation of their fundamental structure*, in: Imhausen, Annette. and Pommerening, Tanja. [eds.], Writings of Early Scholars in the Ancient Near East, Egypt, Rome, and Greece, 2010. Pp. 241-276.
- Depuydt, Leo. *Ancient Egyptian Stars Clocks and Their Theory*, Bibliotheca Orientalis, Volume LV, Numbers 1/2, 1998, pp. 5-44.
- Desroches-Nobelcourt, Christiane. *Le Zodiaque de Pharaon*, Archéologia, Number 292, July 1993, pp. 20-45.
- Dieleman, Jacco. *Stars and the Egyptian Priesthood in the Graeco-Roman Period*, in: Noegel, S., Walker, J., and Wheeler, B. (Editors). Prayer, Magic, and the Stars in the Ancient and Late Antique World, 2003, pp. 137-153.
- Dobek, Gerald O. *Ancient Egyptian Astronomy*, Northwestern Michigan College.
- Dodd, William. *Decans, Djed Pillars, and Seasonal Hours in Egypt*, Journal of The Royal Society of Canada, Volume 105, Number 5, October 2011, pg. 187.
- Fairall, Anthony. *Precession and the layout of the ancient Egyptian pyramids*, Astronomy & Geophysics, Volume 40, Number 3, 1 June, 1999, pp. 3.4.

- Faulkner, Raymond. *The King and the Star-Religion in the Pyramid Texts*, Journal of Near Eastern Studies, 1966, pg. 166.
- Gadre, Karine. *Conception d'un modèle de visibilité d'étoile à l'oeil nu. Application à l'identification des décans égyptiens*, doctoral thesis, 2008.
- Gary, Patricia Blackwell. and Talcott, Richard. *Stargazing in ancient Egypt*, Astronomy, June 2006, pp. 62-67.
- Gingerich, Owen. *Ancient Egyptian Sky Magic*, Sky and Telescope, Volume 65, Number 5, May 1983, pp. 418-420).
- Goebs, Katja. *Crowns in Egyptian Funerary Literature: Royalty, Rebirth, and Destruction*, University of Toronto thesis, 2008.
- Graur, Or. *The Ancient Egyptian Personification of the Milky Way as the Sky-Goddess Nut: An Astronomical and Cross-Cultural Analysis*, Journal of Astronomical History and Heritage, 27(1), 28-45 (2024).
- Hardy, Patty. *The Cairo Calendar as a Stellar Almanac*, Archaeoastronomy: The Journal of Astronomy in Culture, Volume XVII, 2002 – 2003, pp. 48-63.
- Hawass, Zari. *The Royal Tombs of Egypt*, 2006.
- Jasmien, Anne. and De Gussem, Gaston. *Ancient Egyptian Astronomy: Celestial Deification, Time Measurement and Astronomical Observations*, University of Birmingham, Institute of Archaeology and Antiquity, 2004.
- Jones, Alexander. *Mathematics, Science, and Medicine in the Papyri*, in: Bagnell, Roger. [ed.], The Oxford Handbook of Papyrology, 2009, pp. 338-357.
- Kákosy, László. *Decans in Late-Egyptian Religion*, Oikumene, Volume 3, 1982, pp. 163–191.
- Kapar, Olaf. *The astronomical ceiling of Deir el-Haggar in the Dakhlen Oasis*, Journal of Egyptian Archaeology, Volume 81, 1995, pp. 175-195.
- Krupp, Ed. *Astronomers, Pyramids, and Priests*, in: Krupp, Ed. (Editor). In Search of Ancient Astronomies, 1977/1984, pp. 203-239 (1977 edition); pp. 186-218 (1984 edition)).
- Krupp, Ed. *From Here to Eternity*, Sky and Telescope, Volume 99, Number 2, February 2000, pp. 87-89.
- Krupp, Ed. *The Sphinx Blinks*, Sky and Telescope, Volume 101, Number 3, March 2001, pp. 86-88).
- Krupp, Ed. *Unlimited Ceiling*, Sky and Telescope, Volume 102, Number 4, October 2001, pp. 86-88.
- Locher, Kurt. *A further coffin lid with a diagonal star clock from the Egyptian Middle Kingdom*, Journal for the History of Astronomy, Volume XIV, 1983, pp. 141-144.
- Lockyer, Joseph. *On some points in ancient Egyptian astronomy. I*, Nature, Volume 45, Number 1161, January 28, 1981, pp. 296-299).
- Locher, Kurt. *Probable Identification of the Ancient Egyptian Circumpolar Constellations*, Archaeoastronomy, Number 9, 1985, pp. S152-S153; Supplement to the Journal of the History of Astronomy, Volume 16.
- Locher, Kurt. *The Ancient Egyptian Constellation Group 'The Lion Between Two Crocodiles' and the Bird,* Archaeoastronomy, Number 15, 1990, pp. S49-S51; Supplement to the Journal of the History of Astronomy, Volume 21).

- Locher, Kurt. *The Archetypal Symbolism of the Most Ancient Constellations: A Comparison Egypt/China,* in: BAR International Series, 1154, 2003, pp. 3-6.
- Locher, Kurt. *The Decans of Ancient Egypt: Timekeepers for Worship, or Worshiped Beyond Time*, in: Fountain, John. and Sinclair, Rolf. (Editors). Current Studies in Archaeoastronomy: Conversations Across Time and Space, 2003, pp. 429-434.
- Locher, Kurt. *Two further coffin lids with diagonal star clocks from the Egyptian Middle Kingdom*, Journal for the History of Astronomy, Volume XXIII, 1983, pp. 201-207.
- Lull, José. and Belmonte, Juan Antonio. *A Firmament Above Thebes: Uncovering the Constellations of the Ancient Egyptians*, Journal for the History of Astronomy, Volume 37, Part 4, Number 129, 2006, pp. 373-392.
- Lull, José and Belmonte, Juan Antonio. *Egyptian Constellations,* in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1477.
- Lull, José. and Belmonte, Antonio. *The constellations of ancient Egypt*, in: Belmonte, Juan. and Shaltout, Mosalam. [eds.], In Search of Cosmic Order: Selected Essays on Egyptian Archaeoastronomy, 2009, pp. 155-194.
- Malville, J. McKim. *Astronomy at Nabta Playa, Southern Egypt*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. l1079.
- Maravelia, Amanda-Alice. *Cosmic Space and Archetypal Time: Depictions of the Sky-Goddess Nut in Three Royal Tombs of the New Kingdom and her Relation to the Milky Way*, Göttinger Miszellen, Heft [Volume/Issue] 197, 2003, pp. 55-72.
- Maravelia, Amanda-Alice. *Illumination of the Sacrarium in the Great Temple at Abu Simbel, its Astronomical Explanation, and some Hints on the Possible Stellar Orientation of the Small Temple*, in: BAR International Series, 1154, 2003, pp. 7-29.
- Maravelia, Amanda-Alice. *Les Astres dans les Textes Religieux en Égypte Antique et dans les Hymnes Orphiques*, 2004. [The Celestial Bodies in the Religious Texts of ancient Egypt and in the Hellenic Orphic Hymns, PhD thesis, University of Limoges, Centre des Recherches en Sciences de l'Antiquité].
- Nagy, I. *Remarques sur Quelques Formules Stellaires des Textes Religieux d'Epoque Saïte*, Studia Aegyptiaca, Volume III, 1977, pp. 99-117.
- Novaković, Bojan. *Senenmut: An Ancient Egyptian Astronomer*, Publications of the Astronomical Observatory of Belgrade, Number 85, 2008, pp. 19-23).
- Park, Rosalind. *The First Decan*, in: Griffin, Kenneth. [ed.] Current Research in Egyptology VIII, 2008, pp. 103-112.
- Parker, Richard. *Ancient Egyptian Astronomy*, in: Hodson, Frank. [ed.], *The Place of Astronomy in the Ancient World*, 1974, pp. 51-65.
- Parker, Richard. *Egyptian Astronomy, Astrology, and Calendrical Reckoning,* in: Gillespie, Charles. [ed. in chief], Dictionary of Scientific Biography. Volume XV. Supplement I, 1978, pp. 706-727.
- Polo, Miguel Ángel Molinero. *A Bright Night Sky over Karakhamun: The Astronomical Ceiling of the Main Burial Chamber in TT 223*, in: Pischikova, Elena. [ed.], Tombs of the South Asasif

Necropolis: Thebes, Karakhamun (TT 223), and Karabasken (TT 391) in the Twenty-fifth Dynasty, 2014, pp. 201-238.

- Priskin, Gyula. *The Constellations of the Egyptian Astronomical Diagrams*, ENIM (Égypte nilotique et méditerranéenne), Volume 12, 2019, pp. 137-180.
- Reed, George. *Ancient Astronomers Along the Nile*, The Science Teacher, Volume 53, Number 6, September 1986, pp. 59-62.
- Relke, Joan. and Ernest, Allan. *Ancient Egyptian Astronomy: Ursa Major - Symbol of Rejuvenation,* Archaeoastronomy: The Journal of Astronomy in Culture, Volume XVII, 2002 – 2003, pp. 64-80.
- Remler, Pat. *Egyptian Mythology A to Z / 3rd ed*., 2010, Chelsea House, ISBN 978-1-60413-926-6
- Roberson, Joshua. *The Book of the Earth: A Study of Ancient Egyptian Symbol-Systems and the Evolution of New Kingdom Cosmographic Models*, 2007.
- Ruggles, Clive L. N. Monuments of the Giza Plateau, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1519.
- Soliman, Rasha. *Goddess Nut and the Milky Way*, in: Proceedings of the 2nd International Conference of Egyptian Science Through [the] Ages, October 9-11, 2012, Cairo.
- Spalinger, Anthony. *Ancient Egyptian Calendars*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1489.
- Stewart, Devon. *Conservation and Innovation: The Zodiac in Egyptian Art*, 2010.
- Symons, Sarah. *A Star's Year: The Annual Cycle in the Ancient Egyptian Sky*, in: Steele, John. [ed.], Calendar and Years: Astronomy and Time in the Ancient Near East, 2007, pp. 1-33
- Symons, Sarah. *Accuracy issues in ancient Egyptian stellar timekeeping*, in: McDonald, Angela. and Riggs, Christina. (Editors). Current Research in Egyptology I, 2000, pp. 111-114.
- Symons, Sarah. and Cockcroft, Robert. *An ancient Egyptian Diagonal Star Calendar Table in Mallawi, Egypt*, Journal for the History of Astronomy, Volume 44, Part 4, Number 157, 2013, pp. 457-463.
- Symons, Sarah. *Ancient Egyptian Astronomy: Timekeeping and Cosmography in the New Kingdom*, 1999.
- Symons, Sarah. and Cockcroft, Robert. *Ancient Egyptian Diagonal Star Tables: A New Fragment, and Updates for S16C and S1C*, Journal for the History of Astronomy, Volume 45, 2013.
- Symons, Sarah. *Astronomical Ceilings*, Egyptian Archaeology, Volume 30, 2007, pp. 11-13.
- Symons, Sarah. *Astronomy, Egyptian*, in: Bagnall, Roger. et al. [eds.]. The Encyclopedia of Ancient History, 2012.
- Symons, Sarah. *Contexts and elements of decanal star lists in Ancient Egypt*, in: Bawanypeck, Daliah. and Imhausen, Annette. [eds.], Traditions of Written Knowledge in Ancient Egypt and Mesopotamia, 2014, pp. 91-122).
- Symons, Sarah. and Tasker, Elizabeth. *Decoding the Charts of ancient Egypt*, Scientific American, Volume 313, Issue 4, October 15, 2015.

- Symons, Sarah. and Cockcroft, Robert. *Diagonal Star Tables on Coffins A1C and S2Hil: A New Triangle Decan and a Reversed Table*, PalArch's Journal of Archaeology of Egypt/Egyptology, Volume 10, Number 3, 2013, pp. 1-10.
- Symons, Sarah. *Egyptian "Star Clocks"*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1495.
- Symons, Sarah. and Tasker, Elizabeth. *Stars of the Dead*, Scientific American, Volume 313, Number 4, October 1, 2015, pp. 70-75.
- Symons, Sarah. *Two Fragments of Diagonal Star Clocks in the British Museum*, Journal for the History of Astronomy, Volume 33, 2002, pp. 255-260.
- Thurston, High. *Aligning Giza: Astronomical Orientation of the Great Pyramid*, Griffith Observer, Number 9 (September), 2001.
- Von Bomhard, Anne-Sophie: *Egyptian Decanal Stars in Astronomy, Mythology, and Astrology*, in Rappenglück, Michael A. and Shaltout, Mossalam (eds.), *From Alexandria to Al-Iskandaryiya, Astronomy and Culture in the Ancient Mediterranean and Beyond*, 2009, pg. 31.
- von Bomhard, Anne-Sophie. *The Egyptian Calendar: A Work for Eternity*, 1999.
- Waldron, Richard. *The Kingdom of Amon-Re: The Egyptian Sky, 3,000-300 B.C.*, Griffith Observer, June 1973.
- Waziry, Ayman. *Probability Hypothesis and Evidence of Astronomical Observatories in Ancient Egypt*, Journal of Social Sciences and Humanities, Volume 2, Number 2, 2016, pp. 31-50.
- Wells, Ronald. *Astronomy*, in: Redford, Donald. [ed.], The Oxford Encyclopedia of Ancient Egypt, 2001, pp. 145-151.
- Wells, Ronald. *Origin of the Hour and the Gates of the Duat*, Studien zur Altägyptischen Kultur, Band. 20, 1993, pp. 305-326.
- Wernick, Nicolas. *Timekeeping in Ancient Egypt*, Ancient Egypt, Volume 9, Number 3, Issue 51, December 2008/January 2009, Pages 29-32.


Online:


- Cultural Astronomy page at the University of Chicago: http://ecuip.lib.uchicago.edu/diglib/science/cultural_astronomy/cultures_egypt-2.html
- Egyptology Online: http://www.egyptologyonline.com/astronomy.htm
- Le Vye, Jeszika, Egyptian Deities: http://www.jeszika.com/egyptian-deities
- StarTeach Astronomy Education: http://www.starteachastronomy.com/egyptian.html
- Symons, Sarah. *Its Sirius O'Clock: Astronomical Timekeeping in Ancient Egypt*, RASC Toronto, 10 April 2019, Ontario Science Centre: https://www.youtube.com/watch?v=Ak07dI-TALU


**Etruscan:**

Resources include:


- Rjabchikov, Sergei V. *The Etruscan Astronomy*, in Etruscan Research, Rjabchikov, Sergei V. [ed.], January 2014, Number 1.


**Euphratian:**

This is a term used by R. H. Allen in his *Star Names* in 1899 in reference to asterisms he lists from the area of the Euphrates River, the problem being that this isn't very specific and could refer to Akkadian, Assyrian or even Seleucid cultures. Where the specific culture isn't clear, I use this in the handbook.

**Greek**: Greeks whose works contributed to the asterisms and constellations in this handbook include author and philosopher Pliny the Elder (23 – 79 C.E.), astronomer, geographer and mathematician Hipparchus of Nicaea (190 – 120 B.C.E.), mathematician Meton of Athens (5th century B.C.E.), astronomer and philosopher Timocharis of Alexandria (c. 320 – 260 B.C.E.), astronomer Aristyllus (3rd century B.C.E.), Aristarchus of Samos (310 – c.230 B.C.E.), and mathematician Eratosthenes of Cyrene (c. 276 – 194 B.C.E.), and mathematician and astronomer Claudius Ptolemy (100 – 178 C.E.).

Some is preserved on the marble globe of the Atlas statue in the Villa Farnese in Naples (2nd century C.E.). Though Roman, it is a copy of an earlier Greek globe which has not survived. The sculptor appears to have been influenced by the poetry of Aratos of Soloi (~300 B.C.E.). There is no basis to claims that it was influenced by Hipparchus' star catalogue.

Another source is the Leiden Aratea manuscript from the Carolingian period (778 – 840). It was created on 99 leaves of parchment between 816 to 825. It was influenced by Roman star maps (not a globe)

The Greek asterisms displayed on Stellarium were compiled and uploaded to Stellarium by Alina Schmidt, Lea Jabschinski, Marie von Seggern and Susanne M. Hoffmann: service@uhura-uraniae.com They thank Patrick Gleason and Georg Zotti for English proofreading. The Farnese asterisms were uploaded to Stellarium by Susanne M. Hoffmann: service@uhura-uraniae.com. The Greek asterisms from the Leiden Aratea manuscripts were created for Stellarium by Susanne M. Hoffmann in collaboration with Prof. Dr. Dieter Blume (Art History, FSU Jena, Germany) for Planetarium Jena.

Resources include:

Publications:


- Abry, Josèphe-Henriette. *Manilius and Aratus: two Stoic poets on Stars*, Leeds International Classical Studies, Volume 6, Number 1, 2007.
- Anghelina, Catalin. *Watching for Orion: A Note on OD. 5.274 = IL. 18.488*, The Classical Quarterly, New Series, Volume 60 , Issue 1, May 2010, pp. 250-254.
- Antonello, Elio. *Hesiod's calendar and the star Spica*, 2009-2012. [Note: Online publication at arXiv.org. Compiled from several conference presentations; talks given at SEAC 2009 meeting in Alexandria (Egypt) and at archaeoastronomy meetings and conference in Italy in 2009-2012}
- Aujac, Germaine. *Globes célestes en Grēce ancienne,* Der Globusfreund, Number 25-27, 1978, pp. 117-125.
- Aujac, Germaine. *Le ciel des fixes et ses représentations en Grèce ancienne*, Revue d'Histoire des Sciences, Volume XXIX, 1976, pp. 290-307.
- Aujac, Germaine. *Le zodiaque dans l'astronomie grecque*, Revue d'Histoire des Sciences, Volume XXXIII, Issue 1, 1980, pp. 3-32.
- Baker, Howard. *Eudoxus of Cnidus: A Proto-Classical Life*, The Sewanee Review, Volume 81, Number 2, Spring, 1973, pp. 237-281.
- Barnes, John. *Asteras Eipein: An Archaic View of the Constellations from Halai*, Hesperia: The Journal of the American School of Classical Studies at Athens, Volume 83, Number 2, April-June 2014, pp. 257-276).

- Beck, Roger. *Greco-Roman Astrology*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1629.
- Bilic, Tomislav *The Myth of Alpheus and Arethusa and Open-Sea Voyages on the Mediterranean--Stellar Navigation in Antiquity*, International Journal of Nautical Archaeology, Volume 38, Number 1, March, 2009, pp.116–132.
- Billault, Alain. [ed.]. *Héros et voyageurs grecs dans l'occident romain*, 1997.
- Blomberg, Peter. *How did the constellation of the Bear receive its name?* in: Pásztor, Emília. [ed.], Archaeoastronomy in Archaeology and Ethnography: Papers from the annual meeting of SEAC (European Society for Astronomy in Culture), Kecskemét, Hungary, 2004, pp. 129-132.
- Blomberg, Peter. *On the origins of the modern star map,* Mediterranean Archaeology and Archaeometry, Volume 6, Issue 3, 2006, pp. 193-200.
- Blomberg, Peter. *The Early Hellenic Sky Map reconstructed from Archæoastronomical and Textual Studies*, in: BAR International Series, 1154, 2003, pp. 71-76.
- Blomberg, Peter. *The northernmost constellations in early Greek tradition*, in: Blomberg, Mary., Blomberg, Peter., and Henriksson, Göran. (Editors). Calendars, Symbols, and Orientations: Legacies of Astronomy in Culture, 2003, pp. 67-71.
- Blume, Dieter, Haffner, Mechthild, Metzger, Wolfgang. *Sternbilder des Mittelalters und der Renaissance: Porträts aus der Geschichte der Leibnizschen Wissenschaftsakademie, Band I-II*, de Gruyter, 2012-2016
- Bobrova, Larissa. and Militarev, Alexander. *From Mesopotamia to Greece: On the Origin of Semitic and Greek Star Names*, in: Galter, Hannes. and Scholz, Bernhard. [eds.], Die Rolle der Astronomie in den Kulturen Mesopotamiens, 1993, pp. 307-329.
- Bodnár, István. Oenopides of Chius, Preprint / Max-Planck-Institut für Wissenschaftsgeschichte, Volume 327, 2007.
- Boutsikas, Efrosyni. *Astronomical Evidence for the Timing of the Panathenaia*, American Journal of Archaeology, Volume 115, Number 2, April 2011, pp.303-309.
- Boiy, Tom. *Early Hellenistic Chronography in Cuneiform Tradition*, Zeitschrift für Papyrologie und Epigraphik, Band 138, 2002, pp. 249-255.
- Boutsikas, Efrosyni. and Hannah, Robert. *"Aitia", Astronomy and the Timing of the Arrhēphoria*, The Annual of the British School at Athens, Number/Volume 107, November 2012, pp. 233-245, 387-388Boutsikas, Efrosyni. *Greek Temples and Rituals*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1573.
- Boutsikas, Efrosyni. and Ruggles, Clive. *Temples, Stars, and Ritual Landscapes: The Potential for Archaeoastronomy in Ancient Greece*, American Journal of Archaeology, Volume 115, Number 1, 2011, pp. 55-68.
- Bowen, Alan. and Rochberg, Francesca. [eds.] *Hellenistic Astronomy: The Science in Its Contexts*, 2020.
- Brown, Edwin. *The Origin of the Constellation Name "Cynosura*." Orientalia, Nova Series, Volume 50, Number 4, 1981, pp. 384-402.
- Campion, Nicholas [Nick]. *The Dawn of Astrology: A Cultural history of Western Astrology. Volume 1: The Ancient and Classical Worlds*, 2008.

- Charvet, Pascal. and Zucker, Armaud. [eds.] *Le ciel: mythes et histoire des constellations: les Catastérismes d'Ératosthène*, 1988.
- Coldstream, John. and Huxley, George. *An Astronomical Graffito from Pithekoussai*, Parola de Passato, Volume 51, 1996, pp. 221-224.
- Condos, Theony. *Star Myths of the Greeks and Romans: A Sourcebook*, 1997.
- Cooley, Jeffrey. *A Star is Born: Mesopotamian and Classical Catasterisms, Humanitas*, Volume 30, Fall 2006, Issue 1, pp. 8-16.
- Cooley, Jeffrey. *Teaching Stars in Mesopotamia and the Hellenistic Worlds: The Padagogies of Aratus, Enuma Elish and MUL.APIN*, Humanitas, Volume 28, Issue 3, Spring 2005, pp. 9-15.
- Crisostomo, C. Jay., Escobar, Eduardo A., Tanaka, Terri., and Veldhuis, Niek. [eds.] The scaffolding of our thoughts. Essays on Assyriology and the History of Science in Honor of Francesca Rochberg, 2018.
- Cunningham, Clifford. *'Dark Stars' and a New Interpretation of the Ancient Greek Stellar Magnitude System*, Journal of Astronomical History and Heritage, Volume 23, Number 2, 2020, pp. 231-256).
- Dekker, Elly. *A 'Watermark' of Eudoxan Astronomy,* Journal for the History of Astronomy, Volume XXXXIX, Part 2, Number 135, 2008, pp. 213-238.
- Dekker, Elly. *Featuring the First Greek Celestial Globe*, Globe Studies, Number 55/56, 2009, pp. 133-152.
- Dekker, Elly. *The Provenance of the Stars in the Leiden Aratea Picture Book*, 2010, Journal of the Warburg and Courtauld Institutes, Vol. 73, pp. 1 – 37.
- Dicks, David. *Early Greek Astronomy to Aristotle*, 1985.
- Dimitrakoudis, S., Papaspyrou, P., Petoussis, V. and Moussas, X. *Archaic artifacts resembling celestial spheres*, Mediterranean Archaeology & Archaeometry, Volume 6, Issue 3 (Special Issue), 2006, pp. 93-99.
- Dolan, Marion. *The Role of Illustrated Aratea Manuscripts in the Transmission of Astronomical Knowledge in the Middle Ages*, 2007.
- Duke, Dennis. *Analysis of the Farnese Globe*, Journal for the History of Astronomy, Volume 37, Part 1, February, Number 126, 2006, pp. 87-100.
- Duke, Dennis. *Statistical Dating of the Phenomena of Eudoxus*, DIO: The International Journal of Scientific History, Volume 15, December, 2008, pp. 7-23.
- Evans, James. *Material Culture of Greek and Roman Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1589.
- Ferrari, Gloria. *Alcman and the Cosmos of Sparta*, 2008.
- Freeth, Tony. *Reconstructing the Antikythera Mechanism*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1603.
- Garbačiauskas, Paulius. *Few Notes on the Structure of Aratus' Phaenomena*, Literatūra, Volume 51, Number 3, 2009, pp. 24-27.
- Goldstein, Bernard. and Bowen, Alan. *A New View of Early Greek Astronomy*, Isis, Volume 74, Number 3, September 1983, pp. 330-340.
- Gonzáles-Garcia, A. César, Kolev, Dimiter, and Koleva, Vesselina. *Thracian Dolmens*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1395.
- Grasshoff, Gerd. *The History of Ptolemy's Star Catalogue*, 1990.

- Guglielmino, Salvo L., Cipolla, Paolo B., and Giudice, Innocenza Rizzo. *Astronomy in the Odyssey: The Status Quaestionis*, The Light, The Stones, and The Sacred, Astrophysics and Space Science Proceedings 48, Springer, 2017.
- Gysembergh, Victor, Williams, Peter J., and Zingg, Emanuel. *New evidence for Hipparchus' Star Catalogue revealed by multispectral imaging*, Journal for the History of Astronomy, Vol. 53 (4), 383 – 393, 2022.
- Hannah, Robert. *Ancient Greek Calendars*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1563.
- Hadravov, Alena. and Hadrava, Petr. *Ancient Greek tradition in Arabic and Christian celestial globes*, in: Ennio Badolati [ed.], Proceedings of the Third Conference on Cultural Astronomy. 2012, pp. 77-85).
- Hadravov, Alena. and Hadrava, Petr. *Literary and cultural tradition of the Ptolemaic constellations*, in: Ennio Badolati [ed.], Proceedings of the Third Conference on Cultural Astronomy. 2012, pp. 87-99.
- Hadravov, Alena. and Hadrava, Petr. *On the Astronomical Collection of the Premyslid Royal Court 1. The Celestial Globe now in Bernkastel-Kues*, in: Johannes von Gmunden zwischen Astronomie und Astrologie. Hrsg. von Rudolf Simek und Manuela Klein, 2012, pp. 111-121.
- Hadravov, Alena. and Hadrava, Petr. T*he celestial globe from Bernkastel-Kues, in: K. Beneovsk (Editor). A royal marriage. Elizabeth Premyslid and John of Luxembourg – 1310*, 2011, pp. 358-363.
- Hannah, Robert. *Euctemon's Parapēgma*, in: Tuplin, Christopher. and Rihll, Tracey. [eds.], Science and Mathematics in Ancient Greek Culture, 2002, pp. 133-149.
- Hannah, Robert. *The roles of observational astronomy in ancient Greece*, Scientific Culture, Volume 1, Number 2, 2015, pp. 47-56.
- Hardie, Philip. *Imago Mundi: Cosmological and Ideological Aspects of the Shield of Archilles*, Journal of Hellenic Studies, Volume CV, 1985, 11-31.
- Haysom, Monica. *Time and Religion in Hellenistic Athens: An Interpretation of the Little Metropolis Frieze*, 2015.
- Heiberg, J.L. *Claudii Ptolemaei: Syntaxis Mathematica*, 1898, Teubner, Leipzig.
- Hoffman, S. M. *Hipparchs Himmelsglobus*, 2017, Springer, Wiesbaden/N.Y.
- Hunter, Richard. *Written in the Stars; Poetry and Philosophy in Aratus' Phaenomena*, Arachnion, Volume 2, Number 2, 1995, pp. 1-34.
- Jones, Alexander. *Greek Cosmology and Cosmogony*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1549.
- Jones, Alexander. *Greek Mathematical Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1583.
- Kahn, Charles. *On Early Greek Astronomy*, The Journal of Hellenic Studies, Volume 90, 1970, pp. 99-116.
- Katzenstein, Ranee, Savage-Smith, Emily: *The Leiden Aratea — Ancient Constellations in a medieval manuscript*, 1988, The Paul Getty Museum, Malibu California.
- Kidd, Douglas. *Aratus Phaenomena*, 1997.

- Kimpton, Frederick. *The Fasti's Celestial World and The Limitations of Astronomical Knowledge*, Classical Philology, Volume 109, Number 1, January 2014, Pages 26-47.
- Krupp, Ed. *A Dipper for all Seasons*, Sky and Telescope, Volume 93, Number 6, June 1997,pp. 68-69.
- Krupp, Ed. *Astronomical Instrument*, Sky and Telescope, Volume 100, Number 3, September 2000, pp. 93-95.
- Krupp, Ed. *Barking in the Dark*, Sky and Telescope, Volume 95, Number 4, April 1998, pp. 80-81.
- Krupp, Ed. *Bear Country*, Sky and Telescope, Volume 97, Number 5, May 1999, pp. 94-96.
- Krupp, Ed. *Celestial Kings*, Sky and Telescope, Volume 96, Number 5, November 1998, pp. 92-94.
- Krupp, Ed. *Europing the Bull*, Sky and Telescope, Volume 102, Number 3, September 2001, pp. 77-79.
- Krupp, Ed. *Flood Control*, Sky and Telescope, Volume 100, Number 4, October 2000, pp. 101-103.
- Krupp, Ed. *Hair-Raising Tale*, Sky and Telescope, Volume 95, Number 5, May 1998, pp. 80-81.
- Krupp, Ed. *Horse Sense*, Sky and Telescope, Volume 102, Number 1, July 2001, pp. 86-88.
- Krupp, Ed. *Horsefeathers on High*, Sky and Telescope, Volume 93, Number 1, January 1997, pp. 70-71.
- Krupp, Ed. *Hunting the Hare*, Sky and Telescope, Volume 103, Number 2, February 2002, pp. 76-78.
- Krupp, Ed. *Queen of Heaven*, Sky and Telescope, Volume 92, Number 2, August 1996, pp. 60-61.
- Krupp, Ed. *Seven Sisters*, Griffith Observer, Volume 55, Number 1, 1991, pp. 2-16.
- Krupp, Ed. *Starry Fish in the Firmament*, Sky and Telescope, Volume 96, Number 6, December 1998, pp. 101-103.
- Krupp, Ed. *The Guiding Light*, Sky and Telescope, Volume 97, Number 3, March 1999, pp. 87-89.
- Krupp, Ed. *The Stellar Ties That Bind*, Sky and Telescope, Volume 97, Number 1, January 1999, pp. 101-103.
- Krupp, Ed. *Theft of Light*, Sky and Telescope, Volume 99, Number 3, March 2000, pp. 94-96.
- Krupp, Ed. *Throwing the Bull*, Sky and Telescope, Volume 93, Number 4, April 1997, pp. 68-69.
- Laouli, Amanda. *The Greek Myth of Pleiades in the Archaeology of Natural Disasters: Decoding, Dating, and Environmental Interpretation*, Centre for the Assessment of Natural Hazards and Proactive Planning, Greece, 2006.
- Latura, George. *'Child of Earth & Starry Sky' – Orphic Gold Lamellae*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 194.
- Latura, George. *Plato's Cosmic X: Heavenly Gates at the Celestial Crossroads*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 257.
- Le Boeuffle, *André Germanicus les Phénomènes d'Aratos*, 1977.
- Le Boeuffle, André. *Le Ciel et la Mer: l'utilisation de l'Astronomie dens la navigation ancienne*, 1997.

- Le Bourdellès, Hubert. *L'Aratus Latinus: Étude sur la culture et la langue latines dans le Nord de la France au VIIIe siècle*, 1985.
- Lehoux, Daryn. *Astronomy, Weather and Calendars in the Ancient World: Parapegmata and Related Texts in Classical and Near-Eastern Societies*, 2007.
- Lehoux, Daryn. *Greco-Roman Astrometeorology*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1625.
- Lehoux, Daryn. *The Parapegma Fragments from Miletus*, Zeitschrift für Papyrologie und Epigraphik, Band 152, 2005, pp. 125-140.
- Lippincott, Kristen. *The Aratean corpus in Vat. Grec. 1087*, Journal for the History of Astronomy, Volume 46, Issue 2, May 2015, pp. 249-250.
- Lippincott, Kristen. *The Problem of Being a Minor Deity: The Story of Eridanus*, in: Duits, Rembrandt. and Quiviger, François. [eds.],. Images of the Pagan Gods, 2009, pp. 43-96.
- Liritzis, Ioannis. *Bronze Age Greek Pyramids and Orion's Belt*, Griffith Observer, Volume 63, Number 10, October 1998, pp. 10-21.
- Lombardo, Stanley. *Auriga reoriented: a note on constellation forms and Greek artistic imagination*, The Ancient World, Volume 2, 1979, pp. 107-109.
- MacGillivray, Joseph. *Labyrinths and Bull-leapers*, Archaeology, Volume 53, Number 6, November/December, 2000, pp. 53-55.
- Maglova, Penka and Stoev, Alexey. *Thracian Sanctuaries*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1385.
- Marchant, Jo. *First known map of night sky found hidden in Medieval parchment*, Nature, 18 October 2022.
- Martin, Jean. *Phénomènes*, 1998. (2 Volumes).
- Mastorakou, Stamatina. *Greek Constellations*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1555.
- Maurach, G. *Aratus and Germanicus on Altar and Centaur*, Acta Classica, Volume XX, 1977, pp. 121-139.
- Mosenkis, Iurii. Greek Lunar Zodian, date N/K.
- Mosenkis, Iurii. *Mycenaean Oecumene: Where Greek epic heroes sailed*, date N/K.
- Mozel, Philip. *Nocturnal Musings Concerning a Winged Horse*, The Journal of the Royal Society of Canada, Volume 97, April 2003, pg. 61.
- Neugebauer, Otto. *A History of Ancient Mathematical Astronomy*, 1975.
- Nilsson, Martin P. The History of Greek Religion. 1925, New York: Biblo and Tannen
- Oll, Monika. *Greek 'Cultural Translation' of Chaldean Learning*, 2014.
- Pàmias, Jordi. [ed.]. *Eratosthenes Catasterisms Receptions and Translations*, 2016.
- Pāmia, Jordi. *Eratòstenes de Cirene, Catasterismes*, 2004.
- Panou, E. Liritzis, and Preka-Papadema, P. *The Horologion of Andronikos Kyrrhestes (Athens, Greece): Investigation of tis Eight Plane Sundials,* in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 56
- Pedersen, Olaf. *A Survey of the Almagest*, 1974.

- Pendergraft, Mary. *On the Nature of the Constellations: Aratus, Ph. 367-85*, Eranos, Volume 88, Fascicle 2, 1990, pp. 99-106.
- Phillips, J. *The constellations on Archilles' shield (Iliad 18. 485-489),* Liverpool Classical Monthly, Volume 5, Number 8, October 1980, pp. 179-180).
- Poochigian, Aaron. *Aratus: Phaenomena*, 2010.
- Powell, Robert. *Greek star catalogs and the modern astronomical Zodiac*, Kwartalnik Historii Nauki I Techniki, Volume 49, Number 1, 2004, pp. 29-46.
- Robinson, Matthew. *Ardua et Astra: Calculation of the Dates of the Rising and Setting of Stars*, Classical Philology, Volume 104, Number 3, July 2009, pp. 354-375.
- Robinson, Matthew. *Ovid and the Catasterismi of Eratosthenes*, American Journal of Philology, Volume 134, Number 3, September 2013, pp. 445-480.
- Ridpath, Ian. *Star Tales*, 1988.
- Robinson, Matthew. *Ovid and the Catasterismi of Eratosthenes*, American Journal of Philology, Volume 134, Number 3 (Whole Number 535), Fall 2013, pp. 445-480.
- Rovithis-Livaniou, Eleni. and Rovithis, Petros. *Greek Myths for the Gemini Constellation*, Romanian Astronomical Journal, Volume 24, Number 1, 2014, pp. 133-145).
- Russo, Lucio. *The Astronomy of Hipparchus and His Time: A Study Based on Pre-Ptolemaic Sources*, Vistas in Astronomy, Volume 38, 1994, pp. 207-248.
- Santori, Anna. *A Map for Aratus*, in: Katsiampoura, Gianna. (Editor). Scientific Cosmopolitanism and Local Cultures: Religions, Ideologies, Societies, 2014, pp. 36-44.
- Santoni, Anna. *De signis coeli and De ordine ac positione stellarum in signis*, in: Pontani, Filippomaria. (Ed.). Certissima sigm. A Venice Conference on Greek and Latin Astronomical Texts, 2017 pp. 127-144).
- Savage-Smith, Emilie, and Wakefield, Colin. *Jacob Golius and Celestial Cartography*, Learning, Language, and Invention, 1994.
- Savage-Smith, Emelie. *Celestial Mapping*, in: Harley, John. and Woodward, David. (Eds.). *The History of Cartography*. Volume 2, Book 1: Cartography in the Traditional Islamic and South Asian Societies, 1992, pp 12-76.
- Savage-Smith, Emilie and Katzenstein, Ranee. *The Leiden Aratea: Ancient Constellations in a Medieval Manuscript*, 1988.
- Savage-Smith, Emilie. *Celestial Mapping*, in: Harley, John. and Woodward, David [eds], The History of Cartography. Volume 2, Book 1: Cartography in the Traditional Islamic and South Asian Societies, 1992, pp. 12-18).
- Schaefer, Bradley [Brad]. *The Latitude and Epoch for the Formation of the Southern Greek Constellations*, Journal for the History of Astronomy, Volume 33, Part 4, 2002, pp. 313-350.
- Schaefer, Bradley. *The Latitude and Epoch for the Origin of the Astronomical Lore of Eudoxus*, Journal for the History of Astronomy, Volume 35, Number 2, 2004, pp. 161-223.
- Schaefer, Brad[ley]. *The Origin of the Greek Constellations*, Scientific American, Volume 295, Number 5, November 2006, pp. 96-101.
- Schilling, Govert. *Lost Star Catalogue of Ancient Times Comes to Light*, Sky & Telescope, 21 October 2022.

- Soliman, Wael Sayed. *Dwellers of the Sky: Serpent in the Greco-Roman Zodiac*, JGUAA, 2015, Vol. 16, Issue 1, pp 54 – 116.
- Soubiran, Jean. *Aviénus, Les Phénomènes d'Aratos*, 1981.
- Steele, John. *Greek influence on Babylonian astronomy?* Mediterranean Archaeology and Archaeometry, Special Issue, Volume 16, Issue 3, 2006, pp. 153-160.
- Steele, John. *Visual Aspects of the Transmission of Babylonian Astronomy and its Reception into Greek Astronomy*, Annals of Science, Volume 68, Issue 4, 2011, pp. 453-465).
- Steele, John. (Ed.). *The Circulation of Astronomical Knowledge in the Ancient World*, 2016.
- Stevens, Kathryn. *Between Greece and Babylonia. Hellenistic Intellectual History in Cross-Cultural Perspective*, 2019.
- Taub, Liba. *Ancient Meteorology*, ,2004.
- Taub, Liba. *Translating the Phainomena across genre, language and culture*, in: Imhausen, Annette. and Pommerening, Tanja. [eds.], Writings of Early Scholars in the Ancient Near East, Egypt, and Greece, 2010, pp. 119-138.
- Taylor, Walt. *Some Doubtful Star-names*, Bulletin of the Faculty of Arts, University of Egypt, Volume 1, 1993, Pages 325-327.
- Theodossiou, Efstratios, Manimanis, Vassilios, Mantarakis, Peter, and Dimitrijevic, Milan. *Astronomy and Constellations in the Iliad and Odyssey*, Journal of Astronomical History and Heritage, Volume 14, Number 1, 2011, pp. 22-30.
- Theodossiou, Efstratios, Manimanis, Vassilios. Dimitrijevi, Milan. and Mantarakis, Peter. *Sirius in Ancient Greek and Roman Literature: From the Orphic Argonautics to the Astronomical Tables of Georgios Chrysococca*, Journal of Astronomical History and Heritage, Volume 14, Number 3, 2011, pp. 180-189.
- Toomer, G. J. *Ptolemy's Almagest*, 1984, Duckworth, London. Reprinted 1998.
- Tueller, Michael. and Macfarlane, Roger. Hipparchus and the Poets: A Turning point in Scientific Literature, in: Harber, M., Regtuit, R., and Walker, G. [eds.], Nature and Science and Hellenistic Poetry, 2009.
- van der Waerden, Bartel. Science Awakening II: The Birth of Astronomy, 1974.
- Verderame, Lorenzo. *The Primeval Zodiac: Its Social, Religious, and Mythological Background*, in: Rubiño-Martín, José Alberto. et. al. (Eds). Cosmology Across Cultures. ASP Conference Series, Volume 409, 2009, pp. 151-156.
- Verkerk, C. Aratea: *A Review of the Literature Concerning MS. Vossianus lat. q. 79 in Leiden University Library*, Journal of Medieval History, Volume 6, Issue 3, September 1980, pp. 245-287.
- Volk, Katharina. *Letters in the Sky - Reading Signs in Aratus*, American Journal of Philology, Volume 133, Number 2, Whole Number 530, Summer 2012, pp. 209-240.
- Volk, Katharina. *Manilius and his Intellectual Background*, 2009.
- Wagman, Morton. *Hercules, the Champion*, Journal for the History of Astronomy, Volume 23, 1992,pp. 134-136.
- Webb. Edmund. *The Names of the Stars*, 1952.
- Werner, Helmut. and Schmeidler, Felix. *Synopsis of the Nomenclature of the Fixed Stars*, 1986.

- Wilk, Stephen. *Further Mythological Evidence for Ancient Knowledge of Variable Stars,* Journal of the American Association of Variable Star Observers, Volume 27, Number 2, 1999, pp. 171-174.
- Wilk, Stephen. *Mythological Evidence for Ancient Observations of Variable Stars*, Journal of the American Association of Variable Star Observers, Volume 24, Number 2, 1996, pp. 129-133.
- Wilson, Kathryn. *Signs in the Song: Scientific Poetry in the Hellenistic Period*, 2015
- Zucker, Arnaud. (Ed). L'encyclopédie du ciel: mythologie, astronomie, astrologie, 2016.


These are references you can use to examine Ptolemy's sky culture as described in the Almagest:


- *The History of Ptolemy's Star Catalog*, Grasshoff, G, New York, 1990, Springer
- *Claudii Ptolemaei: Syntaxis Mathematica,* Heiberg, J. L. (Ed.), 1898, Teubner, Leipzig *Hipparchs*
- *Himmelsglobus*, Hoffmann, S. M., 2017, Springer, Wiesbaden/ New York
- *Ptolemy's Almagest,* Toomer, G. J., 1984, Duckworth, London
- Wright, Ernie. *Seeing Ancient Stars, Visualization of the Almagest Catalog*, 2006: http://www.etwright.org/astro/almagest.html#cat


**Hittite:** The Hittites were an Anatolian people who established a kingdom in Kussara before 1750 B.C.E. and then the Kanesh or Nesha kingdom (~1750 – 1650 B.C.E.), and then an empire centered on Hattusa around 1650 B.C.E. which lasted until the 13th century B.C.E.

Resources include:


- García, Antonio. and Belmonte, Juan. *Thinking Hattusha: Astronomy and Landscape in the Hittite Lands, Journal for the History of Astronomy*, Volume 42, Issue 4, 2011, pp. 461-495.


**Iranian:**

Resources include:


- Price, Massoume. Astrology & Astronomy in Iran and Ancient Mesopotamia, December 2001 https://www.faculty.umb.edu/gary_zabel/Courses/Phil%20281b/Philosophy%20of%20Magic/World%20Soul/astrology_astronomy_iran_mesopotamia.htm


**Khorasmian:** This is the people of Greater Khorasan or Khorāsān (Middle Persian: Xwarāsān; Persian: خراسان) and refers to the eastern province of the Sasanian Empire (224 – 651 C.E.). This term was used from the late Middle Ages to differentiate it from neighbouring Transoxiana.

**Minoan:** The Minoan civilization was a Bronze Age Aegean civilization (2000 — 1450 B.C.E.) on the island of Crete and neighbouring islands. We know that they had structures aligned with solstices, equinoxes, and even Arcturus, but not about their asterisms. Greek accounts from Thucydides and art depicting Minoan sailing ships indicate that the Minoans were navigators and must have used the stars, but we don't know what they called those stars. Blomberg and Henriksson suggest that because the stars described by the Greek Poet Aratus in his poem *Phaenomena* (270 B.C.E.) best match up to the positions of the stars in the Bronze Age, that this could be something from an oral tradition stretching back to the Minoans.

Resources include:


- Banos, Geoorge. *A Taurus Map on a Minoan Vase?* Mediterranean Archaeology & Archaeometry, Volume 6, Issue 3 (Special Issue), 2006, pp. 27-32.
- Benigni, Helen and Carter, Barbara. *The Goddess and the Bull: A Study in Minoan-Myceneaean Mythology*, 29 Oct. 2007, Miriam Robbins Dexter.

- Blomberg, Mary. and Henricksson, Göran. Evidence for the Minoan origins of stellar navigation in the Aegean, in: Mikocki, T., Ziolkowski, N., Lebeuf, Arnold., and Soltysiak, A. [eds.], Actes de la Vème Conférence Annuelle de la SEAC. Gdansk, 5-8 septembre 1997, pp. 69-81).
- Blomberg, Mary and Henriksson, Göran. *Minoan Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, 1431.
- Blomberg, Mary, and Henriksson, Göran*. The Historical Significance of the Orientations of the Chamber-Tombs of Bronze Age Crete near Mavro Spelio (Black Cave),* in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 38.
- Blomberg, Peter. *An Astronomical Interpretation of Finds from Minoan Greece*, in: Esteban, César. and Belmonte, Juan. (Editors). Oxford VI and SEAC 99 "Astronomy and Cultural Diversity", 2000, pp. 311-318.
- Blomberg, Peter. *An attempt to reconstruct the Minoan star map*, in: Potyomkina, T. and Obridko, V. [eds.], Astronomy of Ancient Societies, 2002, pp. 93-99.
- Blomberg, Peter. *Does Boötes Drive an Ox-Drawn Wagon on the Minoan Star Map*? in: Cosmic Catastrophes: A Collection of Articles, 2005, pp.23-26.
- Blomberg, Peter E. *Malady or Vanity: A Minoan Peak Sanctuary Figurine*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 121.
- Blomberg, Peter. *An attempt to reconstruct the Minoan star map*, in: Potyomkina, T. M. and Obridko, V. N. [eds.], Astronomy of ancient societies, 2002, pp. 93/95-99.
- Blomberg, Peter. *On the origins of the modern star map,* Mediterranean Archaeology & Archaeometry, Volume 6, Issue 3 (Special Issue), 2006, pp. 193-200.
- Blume, Dieter. *Michael Scot, Giotto and the Construction of New Images of the Planets*, in: Duits, Rembrandt. and Quiviger, François. [eds.],. Images of the Pagan Gods, 2009, pp. 129-150.
- Blume, Dieter. *Picturing the Stars: Astrological Imagery in the Latin West*, in: Dooley, Brendan. (Editor). A Companion to Astrology in the Renaissance, 2014, pp. 333-398.
- Cristofaro, Ilaria. *A Journey to the Late Bronze Age Minoan Underworld: The Reflection of Sunlight on the Sea as an Axis Mundi*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 43.
- Hannah, Robert. and Moss, Marina. *The archaeoastronomy of the Palaikastro kouras from Crete*, in: Blomberg, Mary., Blomberg, Peter., and Henriksson, Göran. (Editors). Calendars, Symbols, and Orientations: Legacies of Astronomy in Culture, 2003, pp. 73-77.
- Harrison, Gary. *The Stars in Their Palms*, StarDate Magazine, Volume 28, Number 3, May, 2000, pp. 16-19.
- Henriksson, Göran. and Blomberg, Mary. *New Arguments for the Minoan Origin of the Stellar Positions in Aratos' Phainomena*, in: Esteban, C. and Belmonte, J. A. [eds.], Astronomy and cultural diversity: Proceedings of Oxford XI and SEAC 99, International conference on archaeoastronomy, 2000, pp. 303-311.

- Henriksson, Göran, and Blomberg, Mary: *The Archaeoastronomcal Results of Three Bronze Age Buildings at Agia Triada, Crete*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 177.
- Henriksson, Göran. and Blomberg, Mary. *New arguments for the Minoan origin of the stellar positions in Aratos' Phainomena*, in: Esteban, César. and Belmonte, Juan. [eds.], Oxford VI and SEAC 99 "Astronomy and Cultural Diversity," 2000, pp. 303-310.
- Kyriakidis, Evangelos. *Unidentified Floating Objects on Minoan Seals*, American Journal of Archaeology, Volume 109, 2005, pp. 137-154.
- Lomsdalen, Tore. *Mnajdra Was Not Built in a Day*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 187.
- Marinatos, Nanno. *Minoan Kingship and the Solar Goddess: A Near Eastern Koine*, 2013.
- Mosenkis, Iurii. *Minoan and Myceneaean Constellations in Art*, date n/k.
- Mosenkis, Iurii. *Minoan Exact Science: Sacral Astronomy*, 2016.
- Ridderstad, Marianna P. *Games for Cosmos: How the Minoran Elite Ruled Their People by Mastering Ritual Performance and the Cycles of Time*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 41.
- Ridderstad, Marianna. *Placement and Orientations of Cairns Around Middle Neolithic Giant's Churches*, Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 201.


Online:

- Minoan Astronomy: https://minoanastronomy.mikrob.com/?fbclid=IwAR0Q_WIOBlpKA55AdUWXcLG8wo0FxQ_xR8D8JFBXyfLaehcjn1vTYZEkJeE

**Mithraic:** Mithraism or the Mythraic Mysteries was a Roman mystery religion related to the God Mithras popular among the troops of the Roman army from the 1st century to the 4th century C.E.

Resources include:


- Assai, Reza. Swastika: *The Forgotten Constellation Representing the Chariot of Mithras*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 407.


**Phoenician:** The Phoenicia in the Levant region of the Mediterranean was at its height between 1100 and 200 B.C.E. Phoenician navigators were the first in the Mediterranean to apply astral navigation systematically and we know from Greek writers of the time that they used Ursa Minor to navigate. Their sanctuaries are oriented to the sky.

Resources include:

- Brown, Robert. *Researches into the Origin of the Primitive Constellations of the Greeks, Phoenicians, and Babylonians*, 1899, vol I, Pp Xvi + 361, Longon: Williams and Norgate.
- Carrasco, José Luis Escacena. *Orientation of Phoenician Temples*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1793.
- Goldfarb, Amanda Nicole. Canaanite and Phoenician Astronomy: From the Late Bronze Age to the Early Iron Age, 2012, University of Melbourne.


**Punic:** The Punic (Western Phoenician) people were a Semitic people in the Western Mediterranean who migrated from Tyre to North Africa in the early Iron Age. Their largest settlement was Carthage.

**Roman:**

Resources include:


- Bakhouche, Béatrice. *Le corps humain et les astres dans la littérature latine impériale*, Latomus Revue D'Études Latines, Tome 57, 1998, pp. 362-374.
- Beehler, Carolyn. *The Priscilla Catacomb Painting: A Hidden Star Map Revealed*, Archaeoastronomy, Volume 3, Number 3, July-August-September 1980, pp. 14-16.
- Bishop, Caroline. *Naming the Roman Stars: Constellation Etymologies in Cicero's Aratea and De Natvra Deorvm*, The Classical Quarterly, Volume 66, Issue 1, May 2016, pp. 155-171.
- de Bourdellès, H. *L'Aratus Latinus: étude sur la culture et la langue latine dans le nord de la France au VIIIe siècle*, 1985.
- Gee, Emma. *Aratus and the Astronomical Tradition*, 2013
- Gee, Emma. *Cicero's Astronomy*, Classical Quarterly, Volume 51, Number 2, 2001, Pages 520-536.
- Le Boeuffle, André. *Astronomie Astrologie Lexique Latin*, 1987
- Le Boeuffle, André. *Le ciel des Romains*, 1989.
- Le Boeuffle, André. *Le vocabulaire latin de l'Astronomie*, 1973. (3 Volumes).
- Le Boeuffle, André. *Les noms latins d'astres et de constellations*, 1977.
- Le Bourdellès, Hubert. *L'Aratus Latinus*, 1985.
- Le Boeuffle, André. *Quelques Erreurs Ou Difficultés Astronomiques* Chez Columelle, Revue des Études Latines, Volume 42, 1964, pp. 324-333.
- Le Boeuffle, André. *Quelques Observations Sur Virgile, Géorgiques*, IV, 234 sq, Revue des Études Latines, Volume 39, 1961, pp. 100-105.
- Le Boeuffle, André. *Recherches Sur Hygin*, Revue des Études Latines, Volume 43, 1965, pp. 275-294.
- Le Boeuffle, André. *Vénus, "Étoile Du Soir", Et Les Écrivains Latins*, Revue des Études Latines, Volume 40, 1962, pp. 120-125.
- *zodiaque l'Énéide*, Latomus Revue D'Études Latines, Tome 52, 1993, pp. 318-349.
- Carswell, Christopher. *Sidera Augusta: The Role of the Stars in Augustus' Quest for Supreme Auctoritas*, 2009.
- de Callataÿ, Godefroid. *Le* Castelletti, Cristiano. *Why is Jason Climbing the Dragon? A Hidden Catasterism in Valerius Flaccus' Argonautica 8,* Illinois Classical Studies, Number 37, 2012, pp. 141-165.
- Fox, Matthew. *Stars in the "Fasti": Ideler (1825) and Ovid's Astronomy Revisited*, The American Journal of Philology, Volume 125, Number 1, Spring 2004, Whole number 497, pp. 91-133.

- Gee, Emma. *Ovid, Aratus and Augustus: Astronomy in Ovid's "Fasti.",* 2000.
- Gee, Emma. *Cicero's Astronomy*, Classical Quarterly, New Series, Volume 51, Number 2, 2001, pp. 520-536.
- Gee, Emma. *Quintus Cicero's Astronomy?* The Classical Quarterly (New Series), Volume 57, 2007, pp. 565-585.
- Goold, George. [ed. & trans.]. *Manilius Astronomica*, 1977, reprint 1992.
- Hannah, Robert. *The Emperor's Stars: The Conservatori Portrait of Commodus*, American Journal of Archaeology, Volume 90, 1986, pp. 337-342.
- Hannah, Robert. *The Stars of Iopas and Palinurus*, American Journal of Philology, Volume 114, Number 1, Spring, 1993, pp. 123-135.
- Hoffleit, Dorrit. *The Christmas Star, Novae, and Pulsars*, The Journal of the American Association of Variable tar Observers, Volume 13, Number 1, June 1984, pp. 15-20.
- Laffitte, Roland. *Précisions sur l'origine des noms des signes du zodiaque*, Bulletin de la SELEFA, Number 7, 1er semester, 2006, pp. 1-10.
- Lanciano, Nicoletta. *Which Rule for the Order of Days in the Week in Artefacts from Roman Times to 1600,* in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 54.
- Lewis, Anne-Marie. *From Aratus to the Aratus Latinus: A Comparative Study of Latin translation*, 1983.
- Lowe, Dunstan. *Monsters in the Roman Sky: Heaven and Earth in Manilius' Astronomica*, in: Yoder, P. and Kreuter, P. [eds.], Monsters and the Monstrous: Myths and Metaphors of Enduring Evil, 2004, pp. 143-156.
- Magini, Leonardo. *Stars, Myths and Rituals in Etruscan Rome*, 2014.
- McGurk, P. *Germanici Caesaris Aratea Cum Scholiis: A New Illustrated Witness from Wales*, National Library of Wales Journal, Volume 18, Number 2, 1973, pp. 197-216.
- Metzger, Wolfgang. *Stars, Manuscripts, and Astrolabes – The Stellar Constellations in a Group of Medieval Manuscripts between Latin Literature and a New Science of the Stars*, in Corsini, Enrico Maria. (Editor). The Inspiration of Astronomical Phenomena VI. ASP Conference Series, Volume 441. 2011, pp. 533-542.
- Pickering, Keith. *The Southern Limit of the Ancient Star Catalogue*, DIO - The International Journal of Scientific History, Volume 12, September 2002, pp. 3-27.
- Possanza, D. Mark. *Translating the Heavens. Aratus, Germanicus, and the Poetics of Latin Translation*, 2004.
- Reeve, Michael *Some Astronomical Manuscripts,* The Classical Quarterly, New Series, Volume XXXX, Number 2, 1980, pp. 508-522.
- Rjabchikov, Sergei. *The Etruscan Astronomy*, Etruscan Research, Number 1, January 2014, pp. 2-14.
- Robinson, Matthew. *Ardua et Astra: On the Calculation of the Dates of the Rising and Setting of Stars*, Classical Philology, Volume 104, Number 3, July 2009, pp. 354-375.
- Robinson, Matthew. *Ovid, The Fasti and the Stars*, Bulletin of the Institute of Classical Studies (BICS), Volume 50, 2007, pp. 129-159.

- Romero, Irene Mañas. *New Interpretations of Roman Mosaics of Italica: Firmament Images*, in: Şahin, Mustafa [ed.], 11th International Colloquium on Ancient Mosaics, October 16th-20th, 2009, Bursa Turkey, 2011, pp. 615-630.
- Soubiran, Jean. [ed. & trans.] *Avenius. Les phénomènes d'Aratos*, 1981.
- Stevens, Natalie. *A New Reconstruction of the Etruscan Heaven*, American Journal of Archaeology, Volume 113, Number 2, April 2009, pp. 153-164.
- Valerio, Vladimiro. *Histographic and numerical notes on the Atlante Farnese and its celestial sphere*, Der Globusfreund, Number 35/37, 1987/1989, pp. 97-127.
- Volk, Katharina. *The World of the Latin Aratea*, in: Derron, Pascale. [ed.] Cosmologies et cosmogonies dans la littérature antique/Cosmologies and Cosmogonies in Ancient Literature, 2015, pp. 253 – 283.
- Wanek, Sara. *Was the Knowledge of the Spherical Shape of the Earth in Roman Imperial Period Reserved to the Elite or was it Common Knowledge?,* in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 52.
- West, Stephanie. *Venus Observed? A Note on Callimachus, Fr. 110*, The Classical Quarterly, Volume 35, 1985, pp. 61-68.
- Zimmermann, L. *"Heads and Tales of Celestial Coins"* in Sky & Telescope, Mar. 1995, p. 28.


**Seleucid**: Alexander the Great conquered Babylon in 331 B.C.E. His Seleucid successors still used the original MUL.APIN sky lore (see Babylonian, above) even though it was already a thousand years old. The Seleucids made some changes to make it fit better into their culture.

Susanne M. Hoffmann (service@uhura-uraniae.com) added the star names and asterisms to Stellarium with the assistance of Dr. Björn Voss (Manager of LWL Planetarium Münster and head of Society of German-speaking Planetariums) and Stefan Harnisch (Manager of Planetarium Jena).

Resources for Seleucid sky lore include:


- Boll. Franz. *Sphaera,* 1903, Teubner, Leipzig.
- Crossen, Craig. March 2015, Sky and Telescope, p.36-40.
- Jones, Alexander. *A Study of Babylonian Observations of Planets Near Normal Stars,* 2004, Archive for History of Exact Sciences.
- Hoffman, Susanne M. *Hipparchs Himmelsglobus*, 2017, Springer, Wiesbaden, New York.
- Hoffman, Susanne M. *History of Constellations as Popularization of Uranometry*, 2017, in: Wolfschmidt, Gudrun [ed.]: *Popularisierung der Astronomie, Nuncius Hamburgensis*, Bd. 41, Hamburg.
- Hunger, Hermann, and Pingree, David. *Astral Science in Mesopotamia*, 1999, Brill, Leiden.
- Hunger, Hermann and Steele, John. *The Babylonian astronomical compendium MUL.APIN*, 2018, Routledge, London/ New York.
- Pàmias, Jordi and Geus, Klaus. *Eratosthenes*, 2007, Sternsagen (Catasterismi), Utopica, Oberhaid.


**Sogdian**:
Sogdia or Sogdiana was an ancient Iranian civilization in what is present day Uzbekistan, Tajikistan, Kazakhstan, and Kygryzstan. It was also a province of the Achaemenid Empire or First Persian Empire (550 – 330 B.C.E.).

## European:

Many of the cultures in Europe had asterisms unrelated to those adopted from Ptolemy and modern research is revealing more and more of these.

Resources include:

Publications:

- Frank, Roslyn. *Hunting the European Sky Bears: A Proto-European Vision Quest to the End of the Earth*, in: Fountain, John. and Sinclair, Rolf. [eds.], Current Studies in Archaeoastronomy: Conversations Across Time and Space, 2003, pp. 455-476.
- Frank, Roslyn. *Hunting the European Sky Bears: Evidence for a celestial mapping system in European folk Traditions*, in: Ros, Rosa Maria. [ed.], Proceedings of the 6th International Conference on Teaching Astronomy: Proceedings of the Conference, Vilanova I la Geltrú, Spain. November 23-25, 2000.
- Frank, Roslyn. and Bengoa, Jesús Arregi. *Hunting the European sky-bears: on the origin of the non-zodiacal constellations*, in: Ruggles, Clive., Prendergast, Frank., and Ray, Tom. [eds.], Astronomy, Cosmology and Landscape, 2001, pp. 15-43.
- Frank, Roslyn M. *Origins of the "Western" Constellations*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 147.
- Fuchs, James [Jim]. *Filling the Sky: The Modern Constellations*, 2003.
- Gallant, Roy. *The Constellations: How They Came to Be*, 1979.
- González-García, A. César. *Profiting from Models of Astronomical Alignments to Unveil Ancient Cosmologies in Europe and the Mediterranean*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 49.
- McCluskey, Stephen C. *Astronomy in the Service of Christianity*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 165.
- Stoev, Alexey and Maglova, Penka, Astronomy in the Bulgarian Neolithic, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1377.

Online:

- Stone Pages. Catalogue of European stone circles and monuments with astronomy connections: http://www.stonepages.com/

**Armenian:** The Armenians are an ethnic group indigenous to the Armenian Highlands of western Asia.

Resources on Armenian sky lore include:

Publications:

- González-Garcia, A. César. *Carahunge – A Critical Assessment*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1453.
- Simonyan, H. E. *Reflection of Celestial Luminaries, Constellations, and the Structure of the Universe in the Archaeological Artifacts of Ancient Armenia*, Communications of BAO, Vol. 72, Issue 1, 2025, pp. 141-149.

Online:

- Belarusian Ethnoastronomy: https://www.academia.edu/6901765/Belarusian_Ethnoastronomy

**Armintxe**: This cave in Spain houses a painting on the ceiling between 12,000 – 14,500 years old depicting animals and a river in the sky. I relied on the sky culture was built by Xabier Gezuraga Jauregi, member and photographer of the group of speleology ADES, and sky and weather photographer, after the discovery continued investigating and wrote the theory of the calendar of Armintxe, explaining the use of animals in cave art to name periods of time, based on stars, Sun and Moon movements.

**Austrian:** Some of the asterisms in his handbook are from the 1730 atlas *Mercurii Philosophicii Firmamentum Descriptionem et Cum Globi Artificialis Coelestis* by Benedictine Monk Corinianus Thomas, a professor of mathematics and theology at the university in Salzburg.

Resources include:

- Draxler, Sonja and Lippitsch, Max E. *Astronomical Treasures in Stift Rein*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 176
- Kaiser, Barbara. *Schloss Eggenberg – A Symbolic World*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 15.

**Baltic:** Resources on Baltic sky lore include:

- *Did There Exist the Baltic Zodiac?* lonas Vairkünas, Lithuanian Museum of Ethnology. Moletai. Lithuania, j.vaiskunas@moletai.ornnitel.net

**Basque:** The Basque (Euskalkdunak) people are indigenous to southwestern Europe.

Resources on Basque sky lore include:

Publications:

- Etxabe, Luis Mari Zaldua. *Basque Saroiak*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1187.
- Frank, Roslyn. M. *Hunting the European Sky Bears: Hercules Meets Harzkume*, Institute of Basque Studies London, and The Department of Spanish & Portuguese University of lowa, lowa City, IA 52242 U.S.A. e-rnail: roz-frank@uiowa.edu
- Knörr, Henrike. *Astronomy and Basque Language*, University of Basque Country, Vitoria-Gasteiz, Euskadi, España, e-mail: fvpknboe@vc.ehu.es

**Belarussian**: This is the astronomy of Belarus in Eastern Europe, where some knowledge of their ancient asterisms has been preserved in remote villages.

Johan Meuris created the Belarussian asterisms for Stellarium, based on the article Astronyms in Belarussian Folk Beliefs by Tsimafei Avilin, published in the peer-reviewed journal Archaeologia Baltica.

Resources on Belarussian sky lore include:

Publications:

- Avilin, Tsimafei. *Astronomy of East European "Mesopotamia": On Examples of Areal Studies of Astronymical Data*, PPT presentation, Center for Belarussian Culture, Language and Literature Research
- Avilin, Tsimafei. *Astronyms in Belarussian Folk Beliefs*, Archaeologia BALTICA 10 (2009,1).

- Avilin, Tsimafei. *Belarussiian Ethnoastronomy*, Belarussian Association of UNESCO Clubs, The Centre for Belarussian Culture, Language and Literature Research, The National Academy of Sciences of Belarus.
- Avilin, Tsimafei. *Between the Earth and Sky: Ethnoastronomy, 2015*. https://ethnoastronomy.com/
- Avilin, Tsimafei: *Belarussian Folk Astronomy: What is Your Ritual About?* PPT presentation, Center for Studies of Belarussian Culture, Language, and Literature.
- Avilin, Tsimafei: *Stars: Is There a Life After Death?* Archaeoastronomy and Death Symposium, Bucharest, May 2022.
- Avilin, Tsimafei. *The Pleiades in the Belarussian Tradition: Folklore Textes and Linguistic Arael Studies, https://doi.org/10.7592/FEJF2018.72.avilin*
- Vitsiaz, Sergey. and Vinkurau, Valeryj. *Cup-Marked Stones ("Star Maps") in Belarus*, in: Cosmic Catastrophes: A Collection of Articles, 2005, pg. 207.

Online:

- Belarussian Folk Astronomy (in Belarusian): https://aviti.livejournal.com/
- Belarusian Ethnoastronomy: https://www.academia.edu/6901765/Belarusian_Ethnoastronomy
- Ethnoastronomical aspect of traditional belarusian fitonimicon: https://www.academia.edu/8787640/Ethnoastronomical_aspect_of_traditional_belarusian_fitonimicon_problem_statement
- Meteor Beliefs Project: East European meteor folk-beliefs https://www.academia.edu/1586711/Meteor_Beliefs_Project_East_European_meteor_folk-beliefs
- Astronyms in Belarussian Folk Beliefs: https://www.academia.edu/1586571/Astronyms_in_Belarussian_folk_beliefs


**Belgian:**

Resources include:


- Frédérick, Heller, Motta, Silvia, and Gaspani, Adriano. *The Case of the Enclosure Burials of Bonlez (Belgium): An Archaeoastronomical Analysis,* in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 192


**Bulgarian:**

Resources include:


- Kolev, Dimiter. *Bulgarian Traditional Cosmogonical and Cosmological Beliefs (After Ethnographic Data from AD 19th to 20th),* in: Esteban, César. and Belmonte, Juan. [eds.], Oxford VI and SEAC 99 "Astronomy and Cultural Diversity", 2000, pp. 327-334.
- Kolev, Nickolay. *Heavenly Bodies and Bulgarian Folk Meteorology*, Proceeding of the Historical Museum - Kustendil [Kyustendil], Volume VI, 2002.
- Koleva, Veselina. and Kolev, Dimitar. *The Orion Constellation in Folk Tradition*, Ethnologica Bulgarica [Bulgarian Ethnology], Numbers 1-2, 1998, pp. 68-78.
- Maglova, Penka, Stoev, Alexey, and Spasova, Mina. Eneolithic Solar Calendar in the Magura Cave Near the Village of Rabisha, Belogradchik Municipality, Bulgaria, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human*

*Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 200.

- Spasova, Mina, Stoev, Alexey, and Maglova, Penka. *Development Over Time and Astronomical Orientations of the Demir Baba Teke Near the Village of Sveshtari, Bulgaria*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 215
- Stoev, Alexey, Maglova, Penka, Markov, Vassil, Spasova, Dimitriya, and Genov, Anton. *Structure of the Sacred Space, Astronomical Orientation and Functional Evolution of the Rock-Cut Monument Near the Village of Lilych, Kyustendil Region, Bulgaria*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 102

**Celtic**: The ancient Celtic people inhabited western Europe and the British Isles. The ancient Celtic peoples had an alphabet, Ogham, which they used to inscribe monuments, but they didn't keep written records: Instead, they trained a group of people called Druids to remember records and information to pass on to later generations. As a result, we know very little about ancient Celtic deities and nothing about ancient Celtic asterisms except fragments that survived from much later texts written to record some of these stories, such as the *Mabinogi*. There are references to asterisms such as the Great Ship, the Bald Ship, the Triangle, the Grove of Blodenwedd, the Chair of Teyrnon, the Chair of Eiddionydd, the Conjunction of a Hundred Circles, the Camp of Elmer, the Soldier's Bow, the Hill of Dinan, the Eagle's Nest, Bleiddyd's Lever, the Wind's Wing, the Trefoil, the Cauldron of Ceridwen, the Bend of Teivi, the Great Limb, the Small Limb, the Great Plain, the White Fork, the Woodland Boar, the Muscle, the Hawk, the Horse of Llyr, Elffyn's Chair, and Olwen's Hall, but we don't know where they were in the sky. Those that we do know are related to Ptolemy's asterisms, which were introduced by Roman invaders, who "Romanized" many Celtic tribes. Most of the ones that I've included are Brythonic, belonging to the Welsh, Cornish, and Breton cultures.

Resources on Celtic sky lore include:

Publications:

- Benigni, Helen: *Stonehenge and the Sequani Calendar,* date n/k.
- Benigni, Helen. *The Druid's Egg: Celtic Balain, a Thought*, 2003.
- Benigni, Hellen, Carter, Barbara, and Ua Cuinn, Eadhmonn. *The Myth of the Year*, 2001.
- Boutet, Michel Gerald. *Druuidica Prinnion (Druidical Astrology)*, 2014.
- Boutet, Michel Gerald. *The Calendar and Almonach of the Ancient Druids*, 2001.
- Brú na Bóinne: Newgrange, Knowth, Dowth, and the River Boyne: A Supplement to Archaeology Ireland. Vol. 11 No. 3: ISSN 0790-982x.
- Carter, Barbara. *Our Proof is in the Night Sky: Notes on the Astronomy of the Coligny Calendar*, 2020.
- Griffiths, Martin. *Under a Celtic Sky: The Lesser Known Stories of the Stars*, 13 January 2008 http://www.lablit.com/article/341
- Gutiérrez, Manuel Pérez. *Celtic Sites of Central Iberia*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1175.
- Murphy, Anthony and Moore, Richard. *The Cygnus Enigma*, in Mythical Ireland. Anthony Murphy, 2001. http://www.geocities.com/mythical/mythical_ireland/cygnus 7/7/001.
- Ross, Anne. *Pagan Celtic Britain*. Chicago: 1996, Academy Chicago Publishers.

- Spagocci, Stefano, and Gaspani, Adriano. *Archaeoastronomical Stratigraphy: Investigations on a Cisalpine Celtic Enclosure*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 223
- Trevelyan, Marie. *Folk-lore and Folk-stories of Wales*, London, Elliot Stock, 1909.
- Türler, Marc. *A Calendrical Interpretation of Spirals in Irish Megalithic Art*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 218.
- Wilson, Katie. *Stonehenge and the Sequani Calendar*

Online:

- Owlcation: https://owlcation.com/social-sciences/King-Arthurs-Wain-Constellations-of-the-British-Celts
- Celtic Constellations, https://stecymru14.wordpress.com/celtstellations/ , basically linked to Owlcation but with more info.
- Freer, Ian, 2004. https://www.wordworks-uk.com/AncientMysteries.html


**Chakavian**: This Adriatic sky culture was derived from neighboring Greece, and we have 127 names of celestial objects from the 12th to 16th century and was in use up to the 19th century by Adriatic islanders in navigation. Chakavian folk ethnoastronomy was studied in detail from 1923-1976 and reported in a monograph of the late professor Mitjel Yoshamya: Gan-Veyan, 1224 p. Zagreb 2005 (Croatian with English & French digests).

**Croatian:**

Resources include:


- Kale, Jadran. *Multiple Features in the Orion Constellation as Recognised in Croatian Folklore*, Naroda umjetnost, Volume 33, Number 1, 1996, pp. 209-221.


**Czech**: Some of the asterisms in this handbook are from the works of Czech astronomer Antonín Bečvář in his 1951 publication *Atlas Coeli*. Some of the asterisms listed in this handbook were the work of Czech astronomer, optician, and friar Antoine Marie Schyrle de Rheita in 1643.

Resources include:


- Hlad, Hovorka, Polechová, Weiselová. Hvězdná obloha 2000.0. Praha: Geodetický a kartografický podnik, 1988.
- Hlad, Hovorka, Sojka, Weiselová. Atlas Coeli Novus 2000.0. Praha: Hvězdárna a planetárium hl. m. Prahy, ETC publishing, 2000.
- Pittich, Kalmančok. Obloha na dlani. Bratislava: Obzor, 1988.
- Ragkos, Nikolaos. *Intellectual Transformations During Renaissance: The Change of Worldview-Impacts on the Architectural Thought and Creation in the Czech Lands During 16th and Early 17th Century*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 152


**Danish:** Some of the asterisms in this handbook are the work of Danish astronomer Tycho Brahe.

**Dutch:** Some of the asterisms in this handbook originated with the Navigators Pieter Dirkszoon Keyser and Frederick de Houtman. Some are the work of uranographer Willem Jansz Blaeu (1571 – 1638) and

cartographer and uranographer Gerardus Mercator (1512 – 1594). Some come from Paul Merula's 1605 *Cosmographiae Generalis*. Some are the work of Dutch/German cartographer and cosmographer Andreas Cellarius (1596- 1665).

Resources include:

- Pepin, M. B. *Seven Arrows in the Sky: The observations of Johannes Sachariassen*, Journal o f the British Astronomical Association, Vol. 103, no. 5, 1993, pp. 241-244.
- Ramakers, Demelza, *Small Star Patterns for Telescopes and Binoculars*.
- Therkorn, Linda. *Landscaping the Powers of Darkness & Light: 600 BC – 350 AD settlement concerns of Noord-Holland in wider perspective*, PhD. thesis, University of Amsterdam, 2004.

**English**: Some of the references to English asterisms come from old English texts by the poets Geoffrey Chaucer (c.1340s - 1400) and John Lydgate (1370 – 1451) and old folk songs such as *Green Grow the Rushes O.* Most are asterisms created, suggested, or named by English astronomers Richard Anthony Proctor (1837 – 1888), Francis Baily (1774 – 1844), Sir William Herschel KH, FRS (1738 – 1822), his brother Sir John Herschel KH, FRS (1792 – 171), physician and astronomer Thomas Hood (1556 – 1620), Edmund Halley (1656 – 1742), English mathematician and astronomer Philibert Jacques Melotte (1880 – 1961), and Ralph Copeland (1837 – 1905). There were others involved as well, such as botanist and amateur astronomer John Hill (1716 -1775) in his 1742 publication *Urania: Or a Complete View of the Heavens* or British physician, Egyptologist Thomas Young FRS (1773 – 1829), and physician and mathematician Sir Charles Scarborough (1615 – 1694). Amateur astronomer Eddie Carpenter of the Bristol Astronomical Society and the Cotswold Astronomical Society also contributed asterisms to this list. Astronomer and vicar Rev. Thomas William Webb (1807 — 1885) recorded some of the asterisms listed here.

Resources include:

Publications:

- Gingerich, Owen *"The Basic Astronomy of Stonehenge"* in The Great Copernicus Chase. 1992, Cambridge U. Press.
- Harding, Jan. *The Neolithic and Bronze Age Monument Complex of Thornborough, North Yorkshire, UK*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1239.
- Hill, John. *Urania: or, A Compleat View of the Heavens; Containing the Antient and Modern Astronomy, In Form of a Dictionary*, 1754, reprinted 1768.
- Hoare, Peter G. *Orientation of English Medieval Parish Churches*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1713.
- Kollerstrom, Nicholas. *The Lunar Meaning of Avebury and Stonehenge*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 13.
- Maranto, G. "Stonehenge: Can It Be Saved?" in Discover, Dec. 1985, p. 60.
- Ruggles, Clive L. N. *Stonehenge and its Landscape*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1223.
- Salt, Alun. *Development of Archaeoastronomy in the English-Speaking World*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 213.
- Webb, Thomas William. *Celestial Objects for Common Telescopes*, 1859.

- Webb, Thomas William. *Celestial Objects for Common Telescopes*, Third Edition, Longman's, Green, & Co., London, 1873.


Online:


- Archaeoastronomy at Stonehenge: http://witcombe.sbc.edu/sacredplaces/stonehenge.html
- News report on a pre-Stonehenge megalith that is astronomically aligned (2016): https://astronomynow.com/2016/08/19/britains-pre-stonehenge-megaliths-were-aligned-by-astronomers/
- Pinard, Chris. King Arthur's Wain: Constellations of the British Celts, Owlcation, 6 Aug 2022, https://owlcation.com/social-sciences/King-Arthurs-Wain-Constellations-of-the-British-Celts


**Estonian:** The Estonians are a Finnic ethnic group indigenous to Estonia.

Resources include:


- Kuperjanov, Andres. Astral Myths in Estonia, Estonian Literary Museum
- Kuperjanov, Andres. Animals in Estonian Folk Astronomy, Estonian Literary Museum, https://www.folklore.ee/rl/fo/tegevus/6824/daugavp_09.pdf
- Kuperjanov, Andres. *Eesti tævas: Uskumus ja tõlgendusi*, Eesti Folkloori Instituut, MA thesis for Estonian Agricultural University, 2003.
- Kuperjanov, Andres. Celestial Pantheons, Estonian Literary Museum, ETF 6824, PPT.
- Kuperjanov, Andres. Estonian Sky- Constellations and Starlore, Balkan Astronomical Meeting, 2005.l
- Kuperjanov, Andres. Pseudomythological Constellation Maps, 2006, http://www.folklore.eelfolklore/vol32/cps.pdf


**Finnish:** Some of the asterisms in this book come from the original inhabitants of Finland and from the epic tale *Kalevala*, a 19th century work of epic poetry by Elias Lönnrot, derived from Karelian and Finnish oral folklore and mythology.

Resources include:


- Ridderstad, Marianna. *Orientations and other features of the Neolithic 'giants' churches' of Finland from on-site and lidar observations*, Journal of Astronomical History and Heritage Volume 18, Number 2, January, 2015, pp. 135-148.


Online resources:


- Saloranto, Jaakko. Breath on a Mirror astronomy blog: http://fdsa-blog.blogspot.com/


**Flemish:** Dutch/Flemish astronomer, uranographer, and clergyman Petrus Plancius (Pieter Platevoet, 1552 – 1622) created many of the asterisms and constellations listed in this handbook.

**French:** Many of the constellations and asterisms in this handbook were created by astronomer and geodesist Abbé Nicolas de Lacaille (1713 – 1762). Astronomer Charles Messier (1730 – 1817) and his assistant Pierre Méchain (1744 – 1804) discovered many of the objects listed here. Other astronomers who are connected to the asterisms and constellations in this handbook include astronomer and mathematician Isaac Habrecht II (1589 – 1633), astronomer Jérôme Lalande (1732 – 1807), the Italian (naturalized French) astronomer and mathematician Giovanni Domenico Cassini (1625 – 1712), Édouard Jean-Marie Stephan (1837 – 1923), and Pierre Charles le Monnier (1715 – 1799). Other French citizens whose works contributed to the asterisms listed here include architect and uranographer Augustin Royer (c. 1679). Some of the asterisms are from the list of amateur astronomers Laurent Ferrero and Fulbert Picot.

Resources include:

- Devevey, Frédéric. et. al. *The Chevroches zodiacal cap and its Burgundy relations*, in: Valls-Gabaud, D. and Boksenberg, A. [eds.], The Role of Astronomy in Society and Culture, Proceedings IAU Symposium Number 260, 2009, pp. 1-8.
- Dutton, Paul *Charlemagne's Mustache and Other Cultural Clusters of a Dark Age*, 2004.
- Ferrand, Angelique. *Du Zodiaque et des hommes : temps, espace, éternité dans les édifices de culte entre le IVe et le XIIIe siècle*, 2017.
- Ramírez-Weaver, Eric. *A Saving Science: Capturing the Heavens in Carolingian Manuscripts*, 2016.
- Ramírez-Weaver, Eric. *Carolingian Innovation and Observation in the Paintings and Star Catalogs of Madrid, Biblioteca Nacional*, Ms 3307, 2008.
- Ramírez-Weaver, Eric. *Classical constellations in Carolingian codices: investigating the celestial imagery of Madrid, Biblioteca Nacional, MS 3307*, in: Walker, Alicia. and Luyster, Amanda. [eds.], Negotiating Secular and Sacred in Medieval Art: Christian, Islamic, and Buddhist, 2009, pp. 103-128.


Online resources include:


- Prestgard, Trygve. Skyhunt astroblog: https://skyhuntblog.wordpress.com/my-asterisms-and-possible-star-clusters/
- Ferrero, Laurent. Splendeurs du Ciel Profond: http://splendeursducielprofond.eklablog.fr/mon-catalogue-d-amas-d-etoiles-p563496


**German:** Many of the asterisms in this book were discovered by William Herschel's sister Caroline Herschel (1750 – 1848). Other German astronomers whose influence can be seen here include Gottfried Kirsch (1639 – 1710), Johann Ehlert Bode (1747 – 1826), lawyer and uranographer Johann Bayer (1572 – 1625) and his colleague Julius Schiller (1580 – 1627), chronologist and astronomer Christian Ludwig Ideler (1766 – 1846), polymath and astronomer Johannes Schöner (1477 – 1547), Karl Ludwig Harding (1765 – 1834), astronomer Jakob Bartsch (Jacobus Bartschius, c.1600 – 1633), German astronomer Maximillian Franz Joseph Cornelius Wolf (1863 – 1932), Jesuit court astronomer Karl-Joseph König (1751 – 1809), mathematician and astronomer Johannes Kepler (1571 – 1630), uranographer Zacharias Bornmann (c.1596), uranographer Caspar Vogel (c 1536),and mathematician Petrus Apianus (Peter Apian, 1495 – 1552). Other Germans whose works contributed to the names of asterisms include poet Philipp von Zesen (Philippus Caesius à Fürstenau, 1619 – 1689).

Resources include:


- Besser, B. P., Boudjada, M. Y., Lippitsch, M. E., and Draxler, S. *Graz and Kepler – Working , Living, and Commemoration*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 188.
- Campion, Nicholas. *Politics, Harmony, and Managing Change in Kepler's Astronomy*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 112.
- Dilanian, Karine. *"Harmonices Mundi" by Johannes Kepler and Georg Kraft's Prediction for Ice Drift on the Neva River in 1732,* in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual

Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 171

- Gropp, Harald. *The Gregorian Calendar in Austria and Johannes Kepler*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 174.
- Kaiser, Barbara. *Schloss Eggenberg – A Symbolic World*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 15. Austria
- Mozel, Philip. *The Sky Disk of Nebra*, The Journal of the Royal Astronomical Society of Canada, Volume 97, October 2003, pg. 245.
- Pásztor, Emilia. *Nebra Disk*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1349.
- Rappenglück, Barbara, and Ernstson, Kord. *Exceptional Evidence of a Prehistoric Meteorite Impact at the Archaeological Site of Stöttham (Chiemgau, SE Germany),* in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 46.
- Ridpath, Ian. *Identifying the stars on Johann Bayer's Chart of the Southern Polar Sky*, The Antiquarian Astronomer. Journal of the Society for the History of Astronomy, Issue 8, April 2014, pp. 97-108.
- Rothwangl, Sepp. *A Vulva-Like Rock Sculpture at Externstteine/Germany and Full Moon as Indication for Sexual Rituals,* in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 213.
- Rothwangl, Sepp. *Is Grimm's Fairy Tale 'The Hare and the Hedgehog' a Mythical Report of a Lunar Eclipse?*, 30 Oct 2007.
- Rothwangl, Sepp. *Kepler's Calculations of the Creation's Date, Compared to Dionysius Exiguus' Adjustment of Anno Domini*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 118.
- Velo, Uliva. *The Harmony of J. Kepler: Elliptical Form in Geometry and Music*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 115.
- Zebahl, Robert. Faint Fuzzies: https://www.faint-fuzzies.de/en/home.php

**Hungarian:** Some of the asterisms in this handbook were created by astronomer and priest Maximilian Hell (1720 – 1792).

Resources include:

- Asterisms: open sets with Hungarian eyes: https://hungarianasterismsopenclusters.wordpress.com/ This site lists the asterisms of astronomer and archaeoastronomer Gábor Sánta as well as those of Hungarian astronomers Veronika Bedö, Victor Czech, Attila Dezsi, István Zoltán Földvár, Miss Attila (Holgye), Gábor János Kernya, Ilona Simon Mogyorösi, Sándor Szabo, János Tóth, and László Vastagh. Almost all of them are linked to photographs of their asterisms.

**Italian:** Some of the asterisms in this handbook were discovered by astronomer Giovanni Battista Hodierna (1597 – 1660),Jesuit astronomer Giovanni Battista Riccioli (1598 – 1671), and Italian navigator Amerigo Vespucci (1454 – 1512). Recent research has revealed asterisms used in local Italian cultures, such as the people of the Ligurian and Piedmont Alps.

Resources include:

Publications:


- Barale, Piero. *Lost Skies of Italian Folk Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1755.
- Belmonte, Juan Antonio, Rodriguez Antón, Andrea, and González-García, A. César. *On the Orientation of Roman Cities in the Illyrian Coast: A Statistical and Comparative Study*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 165.
- Calzolari, Enrico. and Gori, Davide. The archaeological symbols M and W and the symbolic link with Cassiopeia constellation, in: Zedda, Mauro Peppino. and Belmonte, Juan Antonio. (Editors). Lights and Shadows in Cultural Astronomy, 2007, pp. 272-278.
- Gianni, Giovanna., Bortolotto, Susanna., and Magli, Giulio. *Astronomy and Etruscan Ritual: The Case of the Ara della Regina in Tarquinia*, Nexus Network Journal, Volume 15, Issue 3, December 2013, pp. 445-455).
- González-García, A. César and Magli, Giulio. *Roman City Planning and Spatial Organization*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1643.
- Gunzburg, Darrelyn. *The Representation of Celestial Images in the Palazzo della Ragione, Padua, Italy*, ARAM Periodical, Volume 29, Number 1, 2017, pp. 177-194.
- Hannah, Robert, and Magli, Guilio. *Light at the Pantheon*, Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015.
- Incerti, Manuela, *Light-Shadow Interactions in Italian Medieval Churches*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1743.
- Incerti, Manuela and Iurilli, Stefania. *The Astrological Cycle of Schifanoia: The Complexity of Content through Digital Representation,* in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 147
- Leone, I., Meddi, F., Gaudenzi, S., Carnevale, F. and Polcaro, V.F. *Diachronic Evolution of the Orientation of the Early Christian and Medieval Churches of Rome,* in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human*

*Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 150.

- Lippincott, Kristen. *The Astrological Decoration of the Sala dei Venti in the Palazzo del Te,* Journal of the Warburg & Courtauld Institutes, Volume 47, 1984, pp. 216-222.
- Lippincott, Kristen. *The Astrological Vault of the Camera di Griselda from Roccabianca*, Journal of the Warburg and Courtauld Institutes, Volume 48, Pages 42-70.
- Lippincott, Kristen. *Two Astrological Ceilings Reconsidered: the Sala di Galatea in the Villa Farnesina and the Sala del Mappamondo at Caprarola*, Journal of the Warburg & Courtauld Institutes, Volume 53, 1990, pp. 185-207.
- Magli, Giulio. *Etruscan Divination and Architecture*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1637.
- Mandel, Corinne. The zodiacal Virgo on the Neptune fountain in Florence, Notes in the History of Art, Volume 21, Number 1, Fall, 2001, pp. 10-16.
- Quinlan-McGrath, *Mary.Caprarola's Sala della Cosmografia*, Renaissance Quarterly, Volume 50, Number 4, Winter, 1997, pp. 1045-1100.
- Quinlan-McGrath, Mary. *The Villa Farnesina, Time-Telling Conventions and Renaissance Astrological Practice*, Journal of the Warburg and Courtauld Institutes, Volume 58, 1995, pp. 52-71.
- Scuderi, A., Mercadante, F., Cascio P. Lo, and Polcaro, V. F. *The Astronomically Oriented Megalith of Monte Arcivocalotto*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 213.
- Spinazzè, Eva. *The Orientation of Roman Centuriations: Disposition of Christian Medieval Sacred Buildings Inside the Roman Centuria in Northern Italy*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 155.
- Vallese, Gloria. Possible Representations of Vulpecula in Some Italian Medieval Monuments, Accademia di Belle Arti Venezia

**Irish:** Some of the asterisms in this handbook were named by Irish astronomer Agnes Mary Clerke (1842 – 1907).

Resources include:

- Brennan, Martin. *The Stars and the Stones: Ancient Art and Astronomy in Ireland*, 1983, London, Thames and Hudson.
- Burl, Aubrey. *The Stone Circles of Britain*, Ireland, and Brittany. 2000, Yale University Press.
- Krupp, E.C. *"Inner Glow"*, Dec. 2004, Sky & Telescope, pg. 50. About the underground shrine at Newgrange, Ireland.
- Mosenkis. Iurii. *Old Irish gods in their relations with mythologized constellations, date N/K.*
- Prendergast, Frank. *Boyne Valley Tombs*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1263.

- Prendergast, Frank. *Irish Neolithic Tombs in their Landscape,* in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1249.

Online resources include:

- Irish Federation of Astronomy Societies: https://www.irishastronomy.org/

**Languedoc:**

This is a region of southern France that is now part of Occitanie.

**Ligures**: The Ligures or Ligurians were the people of Liguria, a region now in northwestern Italy.

**Kaykavian**: The Kaykavians are indigenous to the eastward islands of the central Balkans.

**Latvian:** Resources on Latvian sky lore include:

- Belarusian Ethnoastronomy: https://www.academia.edu/6901765/Belarusian_Ethnoastronomy

**Lithuanian:** The Lithuanians are a Baltic ethnic group. One subgroup of these people is the Samogitians who inhabit Samogitia in Lithuania.

Resources on Lithuanian sky lore include:

- Poška, D. *O starożytnych obrządkach religijnych poganskich w xięstwach Litewskim I żmuydzkim* (1823).
- Vaiškūnas, Jonas. *Did there Exist the Baltic Zodiac*? in: Esteban, César. and Belmonte, Juan. [eds.], Oxford VI and SEAC 99 "Astronomy and Cultural Diversity", 2000, pp. 319-325/326.
- Vaiškūnas, Jonas. *Some peripheral forms of the Mediterranean and oriental zodiac traditions in heathen Lithuania,* Archaeologia Baltica, Volume 10, Number 1, 2009, pp. 86-93.
- Vaiškūnas, Jonas. *The Pleiades in Lithuanian Ethnoastronomy*, in: Lebeuf, Arnold. and Ziolkowski, M. [eds.], Actes de la Vème Conférence Annuelle de la SEAC. Gdańsk 1997, pp. 225-237.

Online resources include;

- Lithuanian Ethnoastronomy https://www.lnkc.lt/eknygos/eka/eastr/moon1.html
- Vairkūnas, Ionas. *Did There Exist the Baltic Zodiac?* Lithuanian Museum of Ethnology. Moletai. Lithuania, j.vaiskunas@moletai.ornnitel.net

**Macedonian**: The Planetarium at the Macedonian Cultural Centre did ethnoastronomical research in 1982 involving interviews of 1500 people in 140 villages in the Republic of Macedonia which resulted in the asterisms I've included here.

The asterisms for Stellarium were contributed by Vancho Stojkoski and Gjore Cenev from Macedonian Research Society based primarily on the book *Sky over Macedonia* by Gjore Cenev.

Resources on Macedonian sky lore include:

Publications:

- Cenev, Gjore. *The Ancient Sky Map of the Macedonian People*, Cosmos 30, 2014, pp. 167 – 192.

Online:

- Cenev, Gjore. *Macedonian Folk Constellations*, 2008, Publications of the Astronomical Observatory of Belgrade, vol. 85, p. 97-109. Belgrade, Serbia: https://ui.adsabs.harvard.edu/abs/2008POBeo..85...97C/abstract

- Cenev, Gjore. *Sky Map of Macedonian People,* 2004, Skopje, Mladinski kulturen centar.
- Cenev, Gjore. *Neboto nad Makedonija* [*Sky over Macedonia*], 2004, Skopje, Mladinski kulturen centar.

Online:

- Cenev, Gjore. *The Astronomical Knowledge of the South-West Macedonia's People*, 1985, "Publications of the Astronomical Society of "Rudjer Bošković", No. 4, p. 139 - 146". Belgrade, Yugoslavia: https://ui.adsabs.harvard.edu/abs/1985PASRB...4..139C/abstract
- osmos – The Journal of the Traditional Cosmology Society, volume 30, Edinburgh, Scotland, United Kingdom: https://www.academia.edu/18707131/The_Ancient_Sky_Map_Of_The_Macedonian_People


**Norse**: Almost nothing written survives in Scandinavia from the pre-Christian period aside from runic monuments that tell us nothing of their sky culture: Early non-runic written sources are Christian. The odd thing about the Norse culture is that although they have a very rich oral and written tradition, very little has been preserved of Norse star names and asterisms. This is especially odd since we know for certain that they were skilled navigators who must have used knowledge of the stars to navigate across thousands of kilometers of ocean. Part of this might be the use of Latin and Greek/Roman names in the medieval period, and part of this might be Romanticism in the 19th century, were "new" names and traditions appeared. We know that they knew the difference between "sun-time" and "star-time".

The Norse Stellarium asterisms were contributed by Stellarium user Jonas Persson, jonas.persson(at)mna.hkr.se. Norse (Edda) Stellarium asterisms were contributed with the help of Sophie Marshall and Susanne M. Hoffmann.

Resources on Norse sky lore include:


- Andrén, Anders. *Tracing Old Norse Cosmology: The World Tree, Middle Earth and the Sun in Archaeological Perspectives*, 2014.
- Beckman, N. & Kålund, K. *Alfræði íslenzk II: Rímtöl*, (eds.), Copenhagen: Hið íslenzka bókmenntafélag, (1914–1916)
- Bender, Herman E. *Anglo-Saxon and Viking Individual Star Names and Traditions: The Dim View Looking Through a Window into the Distant Past*, 2020
- Etheridge, Christian. *A Possible Source for a Medieval Icelandic Astronomical Manuscript on the Basis of Pictorial Evidence*.
- Etheridge, Christian. *A Systematic Re-evaluation of the Sources of Old Norse Astronomy,* Culture and Cosmos, Volume 16, Numbers 1 and 2, Spring/Summer and Autumn/Winter 2012, pp. 119-130.
- Etheridge, Christian. GKS 1812 4to.
- Etheridge, Christian. *Understanding Medieval Icelandic Astronomy through the Sources of Manuscript GKS 1812 4to*, MA Thesis, Aarhus University, Denmark, 2012.
- Harðarson, Gunnar [ed.] with Etheridge, Christian, Nordal, Guðrún, Óskarsdóttir, Svanhildur. A World in Fragments: Studies on the Encyclopedic Manuscript GKS 1812 4to
- Hedeager, Lotte. *Scandinavian 'Central Places' in a Cosmological Setting*, in: Hárdh, Birgitta. and Larsson, Lars.[eds.], Central Places in the Migration and the Merovingian Periods, 2002, pp. 3-18.

- Henriksson, Göran. *Prehistoric constellations on Swedish Rock-carvings,* in: Le Beuf, A. and Ziólkowski, M. [eds.], Actes de la Vème conference de la SEAC, Gdańsk, Warsaw, 5-8 septembre 1999, pp. 155-173.
- Holmberg, P. *Watching Star Wars with Viking Age Subtitles: An analysis of cohesion and coherence in the Rök runestone inscription*, Arkiv för nordisk filologi, 137, pp. 231–246. 2 May 2022 (Publication date 2025).
- Jónsson, Björn. *Star Myths of the Vikings: A New Concept of Norse Mythology*, 1994.
- Johnsen, Christopher Edwin. *The Swan Maidens and Elf Princes and the Summer and Winter Triangles*, 2024.
- Klepa, Lilian. *Gods and the Sky in Ancient Scandinavia*, Griffith Observer, Volume 49, Number 6 (June), 1985, pp. 2-11.
- Krause, A. *Reclam's Lexicon of Germanic Mythology and Heroic Legend*. Stuttgart: Philipp Reclam, 2010.
- Langer, Johanni/Johnni. *The Wolf's Jaw: an Astronomical Interpretation of Ragnarök*, Archaeoastronomy and Ancient Technologies, Volume 6, Number/Issue 1, 2018, pp. 1-20.
- Lorenz, G. *Gylfaginning. Text, translation and commentary*. Darmstadt: Wissenschaftliche Buchgesellschaft. (Texte zur Forschung, 48).1984
- Malcor, Linda. *The Icelandic Sword In The Stone: Bears In The Sky*, The Heroic Age. A Journal of Early Medieval Northwestern Europe, Issues 11, May 2008.
- Ogier, James. *Eddic Constellations*, International Medieval Congress, 2002, Western Michigan University.
- Ogier, James. *Germanic Mythology as Astronomy*, Presentation. Archaeology Department of the Universiteit van Amsterdam, Netherlands, December 2004.
- Persson, J.R. *Norse Constellations*. ResearchGate. DOI: 10.13140/RG.2.2.15662.92483. 2017.
- Persson, Jonas. *Norse Sky Culture*. Paper shared with the World Asterisms Project in 2022.
- Schjødt, Jens. *Initiation between Two Worlds. Structure and Symbolism in Pre-Christian Scandinavian Religion*, 2008.
- Schütte, Gudmund. *Primæval Astronomy in Scandinavia*, The Scottish Geographical Magazine, Volume XXXVI, October 1920, pp. 244-254.
- Sigurðsson, G. *How Gylfi's Illusion Breathes Life into the Sky*, Religionsvidenskabeligt Tidsskrift, 74, pp. 231–246. DOI: 10.7146/rt.v74i.132105. 2022.
- Soltysiak, Arkadiusz. *Hymiskvida and Gylfaginning 48. Is Thor's Meeting with Midgardsorm an Astral Story?* in: Cosmic Catastrophes: A Collection of Articles, 2005, pp. 175-178.
- Sturluson, S. *The Edda of Snorri Sturluson*. Translated by K. Simrock. Bibliographically updated edition. Stuttgart: Reclam. 2017.

- Wynn, E. S. *Sky Wolves: Lost Constellations and Stellar Magic in in Old Norse and Ancient European Cosmology*, 2005.

Online resources include:

- Langer, Johnni. *The Wolf's Jaw: An Astronomical Interpretation of Ragnarök*, Archaeoastronomy and Ancient Technologies, 2018, 6(1), pp. 1 – 20: http://aaatec.org/art/a_lj1
- Timothy Stephany's The Norse Constellations: https://mythsmysterieswonders.site/index.php/norse-constellations
- Persson, Jona. *Norse Constellations*: https://digitaliseducation.com/resources-norse.html

**Norwegian:**

Resources on Norwegian asterisms include:

- Stjerneskinn.com/deep-sky.htm

**Piemontese:** The Piemontese are indigenous to the area of Piedmont in Italy, on the border between Italy and France. Some asterisms in this project are from the Piemontese community in the Chaco region of Argentina.

**Polish:** Some of the asterisms and constellations in this handbook are the work of astronomer Johannes Hevelius (1611 – 1687), Polish astronomer Stanislaw Lubieniecki (Stanislaus Lubienitzki, 1623 – 1675), Jesuit astronomer and mathematician Marcin Odlanicki Poczobutt (1728 – 1810) and astronomer and comet hunter Antoni Wilk (1876 – 1940), who died during imprisonment during the German occupation of Poland in 1940.

Resources include:

- Iwaniszewski, Stanislaw. *Lessons of Odry*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1357.
- Ziółkowski, Mariusz, and Sobczyk, Maciej. *A 17th Century "Mountain Calendar" from Zywiec (Poland): An Erudite's Invention or a Local Mountaineer's Tradition?,* in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 221.

**Portuguese:** Some of the asterisms in this handbook were the work of Portuguese navigator João Faras (c.1500).

Resources include:

- Hoskin, Michael. *Seven-Stone Antas*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1149.

**Romanian**: The Romanian asterisms on Stellarium were contributed by Stellarium user Mircea Lite (1963 - 2018) on behalf of Baia Mare Planetarium, as a result of a project called Traditional Romanian Constellations primarily based on the book *Romanian Peasant's Beliefs in Stars and Sky* by Ioan Otescu, with assistance of Andrei Dorian Gheorghe and Alastair McBeth – SARM members

Resources on Romanian sky lore include:

Publications:

- Florin. *Astronomical Orientation in the Ancient Dacian Sanctuaries of Romania*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1365.

- Ionescu, Doina., Rovithis, Flora., and Rovithis-Livaniou, Eleni. *The Zodiac: Comparison of the Ancient Greek Mythology and the Popular Romanian Beliefs*, Noesis, Volume 37, 2012, pp. 185-206.
- Stăbescu, Ioan Otescu. *Romanian Peasant's Beliefs in Stars and Sky*
- Stanescu, Florin. *Elements of Romanian folk mythical astronomy: The sky and stars of the Romanian peasants*, in: Zedda, Mauro Peppino. and Belmonte, Juan Antonio. [eds.], Lights and Shadows in Cultural Astronomy, 2007, pp. 355-360.
- Szücs-Csillik, Iharka. Observed Constellations From the Parța Neolithic Sanctuary, 2017.
- Zsigmond, Györö. *Popular Cosmogony and Beliefs about Celestial Bodies in the Culture of the Hungarians from Roma*, Acta Ethnographica Hungarica, Volume 48, Numbers 3-4, August 2003, pp. 421-439.


Online:


- Lite, Mircea. Constelatii Romanesti Traditionale (Tradițional Romanian Constellations): http://crt-ro.com/
- On-line booklet in Romanian and English about 39 Traditional Romanian Constellations: https://www.slideshare.net/planetariubm/broura-constelaii-romanesti-tradiionale
- YouTube playlist of short movies on Romanian constellations with English subtitles: https://www.youtube.com/playlist?list=PLwaYDxThuSyGt1Pw55UxfI9802pq5fFro
- *Romanian Peasant's Beliefs in Stars and Sky* – Translation of texts adapted from Ion Ottescu: http://www.sarm.ro/newsite/index.php?id=1&zi=29&luna=12&an=2009&act=news
- Planetariul Baia Marie (Baia Marie Planetarium) has both Romanian and English information: https://planetariubm.ro/


**Russian:**

Resources include:


- Bagdasarov, R. *Symbolics of the constellations of Sagittaurius and Centaurus in Russian traditional culture*, Astronomical & Astrophysical Transactions, Volume 20, Issue 6, 2001, pp. 975-996.


**Sami**: The Sami are a Finno-Ugric speaking people indigenous to Norway, Sweden, Finland and Western Russia (Kola Peninsula). Each of these groups have different dialects and there are small differences between their sky cultures. What I've listed here is mainly the work of Bo Lundmark (see references below) who based his work on the writings of the Sami artist and author Johan Turi.

Stellarium's Sami sky culture was contributed by Jonas Persson (jonas.persson@physics.org) based on the work of Bo Lundmark Bæi'vi mánno nástit (Swedish title: Sol- och månkult samt astrala och celesta föreställninga bland samerna [Sun and Moon cult and astral and celestial concepts among the Sami], 1982), who based much of his work on the writings of the Sami artist and author Johan Turi.

Resources include:


- DuBois, Thomas. *Underneath the Self-Same Sky: Comparative Perspectives on Sámi, Finnish, and Medieval Scandinavian Astral Lore*, in: Tangherlini, Timothy. (Editor). Nordic Mythologies: Interpretations, Intersections, and Institutions, 2014, pp. 199-220.
- Persson, Jonas. *Sami Sky Culture*, 2022.


**Sardinian**: The Sardinian asterisms I've listed were compiled by Stellarium's user Giuseppe Putzolu (giuseppe.putzolu@gmail.com) based on research done by Tonino Bussu and Marco Puddu.

Resources include:

- Lebeuf, Arnold. *Nuraghic Well of Santa Cristina, Paulilatino, Oristano, Sardinia*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1413.
- Maxia, Mauro. *The name of the constellations in the Sardinian language*, in: Zedda, Mauro Peppino. and Belmonte, Juan Antonio. [eds.], Lights and Shadows in Cultural Astronomy, 2007, pp. 338-343.
- Zedda, Mauro Peppino. *Sardinian Nuraghes*, Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015.


Online resources include:


- Putzolu, Joseph. Stelle e costellazioni in sardo, https://web.archive.org/web/20201029082540/http://www.sarabu.it/193_521_news_2863.php


**Saxon:**

Otto Sigfrid Reuter's 1934 book *Gemanishce Himmelskunde (Ancient German Astronomy*) depicted his interpretation of Saxon skies from 800 C.E.

Resources include:


- Reuter, Otto.Sigfrid. Skylore of the North: https://www.cantab.net/users/michael.behrend/repubs/reuter_himmel/pages/part4_en.html


**Scottish:** Some of the names of asterisms originated with personalities such as Sir Walter Scott FRSE, FSAScot (1771 – 1832). Others were the work of mathematician Michael Scot (Michael Scotus, 1175 – 1232), astronomer Williamina Fleming (1857 – 1911), and astronomer James Dunlop FRSE (1793 – 1848). Other influences include Scottish author and poet William Sharp (writing as Fiona MacLeod, 1855 - 1905) and schoolmaster and uranographer Alexander Jamieson (1782 – 1850).

Resources include:


- Cunningham, Clifford "The Scottish Moon" in Mercury (the magazine of the Astronomical Society of the Pacific), Jul/Aug. 2006, p. 10.
- Fisher, David. *Employing 3-Dimensional Computer Simulation to Examine the Celestial Dating of Scottish Megalithic Sites*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 143.
- Gough, Thomas T. *New Evidence for Precise Lunar Alignments in Argyll, Scotland in the Early Bronze Age,* in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 157.
- Ruggles, Clive L. N. Scottish Short Stone Rows, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1287.


**Seima-Turbino:** This culture is related to Bronze Age settlements dating to 2300 – 1700 B.C.E. in Siberia and Central Asia.

Resources include:

- Polyakova, Olga. *A New Archeoastronomical Research in Arkaim: Anaylysing Cultural References,* in From Alexandria to Al-Iskandariya, Rappenglück, Michael A. Shaltout, Mossalam (eds.), SEAC conference, Egypt, 2009.

**Serbian:**

Resources include:

- Bajić, Aleksandra, and Dimitrijević, Milan S. *Archaeoastronomical Investigation of Felix Romuliana*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 185.
- Bajić, Aleksandra, and Pavlović, Hristivoje. *The Summer Solstice in Lepenski Vir*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 168.
- Fodor, Tamaš, Frîncu, Marc, Dorogostaisky. *Vršac Circles and Vlajkovac Predial, a Possible Pair of Archeoastronomy Related Sites in the South Banat District, Vojevodina Province, Servia*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 27.

**Slavic:**

Resources include:

- Frank, Roslyn. *Hunting the European Sky Bears: Evidence for a celestial mapping system in Slavic and Finno-Ugric folk traditions*, in: Obridko, Vladimir [ed.], Astronomies of Ancient Civilizations, 2002, pp. 237-253.
- Gibbon, William. *Popular Star Names among the Slavic Speaking Peoples*, 1960.
- Gladyszowa, Maria. *Wiedza ludowa o gwiazdach*, 1960. [Polish.]

**Spanish:** Some of the asterisms in this handbook were named by Spanish explorer and navigator Vicente Yáñez Pinzón.

Resources include:

- Esteban, César, and Escacena Carrasco, José Luis. *Oriented for Prayer: Astronomical Orientations of Protohistoric Sacred Buildings in the South Iberian Peninsula*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 129.

**Swedish:** Some of the asterisms in this handbook were discovered by Swedish astronomer Per Collinder (1890 – 1974).

**Swiss:** Some of the asterisms in this handbook were created by astronomer Philippe Loys de Chéseaux (1718 – 1751).

Resources include:

- Gautschy, Rita. *Common Features of Megalithic Stone Rows in Western Switzerland*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 31.

**Venetian:** The Republic of Venice existed from 697 to 1797 and its navigators certainly influenced star lore. Some of the asterisms listed here are the work of Venetian navigator Alvise Cadamosto (1432 – 1488)

**Triesenberg:** This is a municipality in Liechtenstein.

**Welsh:** Some of the asterisms in this handbook are mentioned in various Welsh stories from texts such as the Mabinogion.

**Yugoslavian**:

Resources include:

- Martocchia, Andrea, and Marchionni, Serena. *Djordje Nikolić' Yugoslavs in Astronomy*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 265.

## Far East:

This section includes cultures in the far east:

**Acehnese**: The Acehnese (Ureueng Acèh, Ureuëng Atjèh, Orang Aceh) are indigenous to Aceh in Sumatra.

**Aeta**: The Aeta (Ayta, Agta, Dumagat) peoples are indigenous to the Luzon islands of the Philippines.

**Ainu:**

Resources include:

- Ezo Hougen Moshiogusa[蝦夷方言藻汐草] an Ainu dictionary dating to 1790s which featured many descriptions and records of Ainu constellations.
- Sueoka, Dr. Tomio. Ainu no Hoshi (アイヌの星, 1979).

Online Resources:

- Osomanga, Traditional Stars and Constellations of the Ainu: https://osomanga.tumblr.com/post/618919898684522496/%E3%82%A2%E3%82%A4%E3%83%8C%E3%81%AE%E6%98%9F%E5%BA%A7

**Angkola:** The Angkola (Angkola Batak) people are indigenous to North Sumatra, Indonesia.

**Baduy:** The Baduy (Urang Baduy, Urang Kanékés) are a Sudanese ethnic group indigenous to the southeastern part of Banten.

**Bahau**: The Bahau (Kayan Mekam) people are a sub-ethnic group of the Apo-Kayan people of East Kalimantan, Indonesia.

**Bajau**: The Bajau (Sama Bajau) are indigenous to the islands of Tawi Tawi as well as other islands in the Sulu Archipelago.

**Balinese:**

- Maaß, Alfred, "Astrologische Kalender der Balinesen — Astrologische Kalender der Balinesen," in Koninklijk Bataviaasch Genootschap van Kunsten en Wetenschappen, Feestbundel bij gelegenheid van zijn 150 jarig bestaan 1778-1928, 2 vols. (Weltevreden, 1929), Vol. 2, 126-157.

- Pengkaji Museum Bali, "Kajian Palelintangan", (Denpasar, 2019).

The Balinese sky culture for Stellarium was compiled by Youla A Azkarrula: youlaafifahrvvl@gmail.com . She is a researcher from Bali, Indonesia. She worked for this project based on her pre-doctoral research under supervision of Dr. Dr. Susanne M Hoffmann.

**Bamar**: The Bamar (Burmese, Burmans) people are indigenous to Myanmar.

**Bantenese**: The Bantenese (Orang Banten, Orang Sunda Banten, Urang Wahanten) are indigenous to Banten in the westernmost part of Java Island, Indonesia.

**Batak**: The Batak are indigenous to North Sumatra and parts of adjacent provinces. Subgroups include the Toba, Karo, Simalungun, Pakpak-Dairi, Angkola, and Mandailing.

**Bodo**: The Bodo (Boro) are indigenous to northeast India, primarily residing in the Bodoland Territorial Region of Assam.

**Bouyei**: The Bouyei are indigenous to Guizhou province in Southern China.

**Bruneian Malay**: The Bruneian Malays are indigenous to Brunei, the federal territory of Labuan, the southwestern coast of Sabah, and northern parts of Sarawak.

**Cambodian**:

Resources include:

- Hancock, Graham and Faiia, Santha. *Heaven's Mirror: Quest for the Lost Civilization*, 1998, New York, Three Rivers Press.

**Chakma**: The Chakma are indigenous to the Chittagong Hill Tracts of Bangladesh as well as Mizoram and Arunachal Pradesh in Northeast India and in Myanmar.

**Chinese**: The Yixiangkaocheng xing guans on Stellarium were initially contributed by Karrie Berglund of Digitalis Education Solutions, Inc. based on Hong Kong Space Museum star maps (no longer available online). They were updated by Sun Shuwei sunshuwei.hi@foxmail.com based primarily on the book *Chinese and Western Contrast Star Chart and Catalogue 1950.0* by Yi Shitong. Sun Shuwei also contributed the "medieval" xing guans on Stellarium which originate in the Huangyou sky map.

Resources on Chinese ethnoastronomy include:

Publications:

- Deng, Kehui. *Ancient Chinese Sundials*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2117.
- Didier, John C. *In and Outside the Square: The Sky and Power of Belief in Ancient China and the World, C. 4500 B.C. – A.D. 200, Volume I: The Ancient Eurasian World and the Celestial Pivot*, September 2009, Sino Platonic Papers, Number 192, Department of East Asian Languages and Civilizations, University of Pennsylvania.
- Guan, Yuzhen. *Excavated Documents Dealing with Chinese Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2079.
- Kotyk, Jeffrey. *Buddhist Astrology and Astral Magic in the Tang Dynasty*, PhD Dissertation, Leiden University, 2017.
- Li, Geng. *Gnomons in Ancient China*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2095.
- Pan Nai. *The History of Stellar Observation in China*.

- Pankenier, David W. *Planetary Astrology in Early China and the Sāsāsian Connection*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition
- Pankenier, David W. *Astronomy and City Planning in China*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2085.
- Pankenier, David W. *Planetary Astrology in Early China and the Sāsāsian Connection*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition
- Pankenier, David. *Astrology and Cosmology in Early China: Conforming Earth to Heaven*. 2013. Cambridge University Press.
- Pankenier, David W. *Shang Oracle Bones*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2069.
- Perez-Enriques, Paul. *Astronomical and Geographical Features of Zhoubi Deduced from Mythology and Gnonomic*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 90.
- Qi Rui and Wan Haoyi. *Roving China Heavens*.
- Schafer, Edward *Pacing the Void*: Tang Approaches to the Stars. 2006, Floating World Editions [1977]. 618-907.
- Shi, Yunli. *Ancient Chinese Astronomy – An Overview*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2031.
- Shi, Yunli. *Beijing Ancient Observatory,* in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2141.
- Spitz, Anna *"Visiting the Moon Lady"* in Mercury, Jul/Aug. 2006, p. 24.
- Su Song. *Xinyixiangfayao Star Map.*
- Sun, Xiaochun. *Chinese Armillary Spheres*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2127.
- Sun, Xiaochun. *Chinese Calendar and Mathematical Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2059.
- Sun, Xiaochun. *Chinese Constellations and Star Maps*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2051.
- Sun, Xiaochun. *Observation of Celestial Phenomena in Ancient China*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2043.
- Sun, Xiaochun. *Taosi Observatory*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2105.
- Sun, Xiaochun and Jacob Kistemaker. *The Chinese Sky During the Han: Constellating Stars and Society*. 1997, Brill.
- Sun, Xiaochun. *Water-Powered Astronomical Clock Tower*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2133.
- Tseng, Lilian Lan-ying. *Picturing Heaven in Early China*. 2011, Harvard East Asia Center.
- Xu, Fengxian. *Dengfeng Large Gnomon*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2111.
- Yang, B. S., and Chu, L. F. *A Research on Chenzhuo's Star Catalogue in the Continuation of the Later Han Books*, The Chinese Journal for the History of Science, 2025.

- Yang, B. S. *A Research on the Accuracy of Chinese Traditional Star Observation and the Evolution of Constellations*, PhD Thesis, Hefei: University of Science and Technology of China, 2023.
- Yang, B. S., and Hoffman, S. M. *Identification of Z Cam's Historical Counterpart: The Quest for and Ancient Nova,* Research in Astronomy and Physics, 12, 12pp. 2024.

Online:

- *AEEA Astronomy Education Information-Ancient Chinese Constellation* System (in Chinese): http://aeea.nmns.edu.tw/aeea/contents_list/star_sign.html
- Chang, Feng "Present and Prospect of Chinese Astronomy" (2012): http://english.cas.cn/bcas/2012_4/201411/P020141121531515393572.pdf
- Chinese Heaven in WWT Community Beijing: https://nadc.china-vo.org/wwt/why/chineseheaven.htm
- Copernicus in China (on the spread of Copernican ideas by Nathan Sivin of the University of Pennsylvania): http://ccat.sas.upenn.edu/~nsivin/cop.pdf
- *English-Chinese Glossary of Chinese Star Regions, Asterisms and Star Names*: https://www.lcsd.gov.hk/CE/Museum/Space/en_US/web/spm/starshine/resources/constemyth/glossary.html
- *History of Chinese Astronomy*: http://idp.bl.uk/4DCGI/education/astronomy/history.html
- Pankenier, David "The Mandate of Heaven" in Archaeology, Mar./Apr. 1998, p. 26. : https://www.academia.edu/738341/_The_Mandate_of_Heaven_and_China_s_Oldest_Surviving_Astronomical_Observatory_
- *Records of the Grand Historian*: http://chinesenotes.com/shiji.html
- Song of the Sky Pacers: https://www.lcsd.gov.hk/CE/Museum/Space/archive/Research/Literature/c_research_literature_9.htm
- *The Mathematics of the Chinese Calendar* (by Helmer Aslaksen of the National University of Singapore): http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.139.9311&rep=rep1&type=pdf
- The Science of Heaven (49-min, 2017 documentary on astronomy in China from early days through today; in Chinese with English subtitles: http://english.cas.cn/bcas/2012_4/201411/P020141121531515393572.pdf

Videos:

- Brief Explanation of Ancient Chinese Astronomy (6 min): https://www.youtube.com/watch?v=2u-6fig8DvU
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**Cirebonese**: The Cirebonese (Cirebon) peoples (Javanese: ꦮꦺꦴꦁꦕꦶꦫꦧꦺꦴꦤ꧀, romanized: Wong Cirebon; Sundanese: ᮃᮞᮧᮀ ᮕᮤᮞᮧᮀᮃᮞᮤ, romanized: Urang Cirebon; Indonesian: Orang Cirebon) are an Javanese sub-ethnic indigenous to Cirebon in the northeastern region of West Java Province of Indonesia.

**Dusun**: The Dusun are indigenous to Sabah, Malaysia.

**Gejia**: The Gejia (Gedou) people are indigenous to Guizhou province, China.

**Hlai**: The Hlai (Li, Lizu) are a Dra-Dai speaking ethnic group mostly found on Hainan Island.

**Hmong**: The Hmon (Hmoob, Hmôngz) are a sub group of the Miao people indigenous to southwestern China, Vietnam, Laos, Thailand, and Myanmar.

**Iban**: The Iban are a Dayak sub-ethnic group indigenous to Borneo.

**Igorot**: The Igorot people are indigenous to northern Luzon in the Philippines. Subgroups include the Bontoc, Ibaloi, Ifugao, Isneg, Kalinga, Kankana-ey, and Tingguian.

**Ilocano**: The Ilocano (Ilokáno, Ilóko, Ilúko, Samtóy) people are indigenous to the northwestern coast of Luzon in the Philippines.

**Japanese**: Resources on Japanese sky lore include:

Publications:

- Goto, Akira. *Archaeoastronomy of Japan: A Short History*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 94.
- Katsumata, Takashi. *Constellation Legendry in Japanese Mythology*. (Seiza de Yomitoku Nihon Shinwa) 4th ed. Tokyo: Taishūkan, 2010. 293 pp. (Japanese, and under the translation in English).
- Kotyk, Jeffrey. *Japanese Buddhist Astrology and Astral Magic: Mikkyō and Sukuyōdō*, Japanese Journal of Religious Studies, 45/1, 2018, pp. 37 – 86.
- Miyajima, Kazuhiko. Japanese Celestial Cartography before the Meiji Period, in The History of Cartography, Vol. 2, Book 2, Harley, J. B. and Woodward, David (Eds.), University of Chicago Press, 1994.
- Nakayama, Shigeru A History of Japanese Astronomy. 1969, Harvard University Press.
- Renshaw, Steven L. and Ihara, Saori. *A Cultural History of Astronomy in Japan*, Steve Renshaw and Saori Ihara , 2001
- Renshaw, Steven L. *Astronomical Iconography in Takamatsu Zuka and Kitora Tumuli: Anomalies in the Adaptation of Astronomical and Cosmological Knowledge in Early Japan*, 2014, Mediterranean Archaeology and Archaeometry, Vol. 14, No. 3, pp. 197 - 210
- Renshaw, Steven L. *Astronomical Phenomena in the Development of Political Hegemony in Early Japanese History: An Interdisciplinary Study in Cultural Astronomy*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 493.
- Renshaw, Steven L. *Cultural Astronomy in Japan*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2197.

Online:

- *Astronomy and Mythology in Ancient Japan*: https://www.crystalinks.com/japanastronomy.html
- Japanese Star Lore Around Orion: http://www.renshaworks.com/jastro/orion.htm
- The Lunar Calendar in Japan: http://www.renshaworks.com/jastro/calendar.htm

**Jehai:** The Jehai (Jahai) people are indigenous to Perak, Kelantan, Malaysia, and parts of Thailand.
**Kachin**: The Kachin (Ga Hkyeng, Jingpho) are indigenous to the Kachin Hills in northern Myanmar.
**Kam**: The Kam (Dong) people are indigenous to Guizhou, western Hunan and northern Guangxi.

**Kapampangan:** The Kapampangan "Pampangueños, Pampangos} are indigenous to the Philippine provinces of Paampanga, Bataan, Tarlac, Bulacan, Nueva Ecija, and Zambales.
**Karen**: The Karen (Kayin) peoples are indigenous to southern and southeastern Myanmar.
Resources:

- Marshall, Harry Ignatius. *The Karen People of Burma: A Study in Anthropology and Ethnology*, Ohio State University Bulletin, Vol 26, # 13, 1922.

**Karo**: The Karo (Karo Batak) are indigenous to North Sumatra, Indonesia.
**Kayan**: The Kayan are indigenous to the Island of Borneo.
**Kedahan Malays:** Kedahan Malays (Orang Utara) are indigenous to the northern Malay peninsula in the historical area of Kedah.

**Kedayan**: The Kedayan (Kadaian, Kadyan) peoples are indigenous to Brunei, the federal territory of Labuan, and northern Sarawak on the island of Borneo.

**Kelantanese Malays:** A sub-ethnic group of Malays indigenous to the state of Kelantan and northern Terengganu.

**Kenyah**: The Kenyah people are indigenous to the interior North and East of Kalimantan, Indonesia, and Sarawak, Malaysia.

**Khmer:** The Khmer people (ជនជាតិខ្មែរ) are indigenous to Cambodia.

**Komering**: The Komering (Orang Komering, Jolma Kumoring) are indigenous to the land along the Komering River in South Sumatra.

**Korean**: The Korean asterisms on Stellarium were contributed by Stellarium user Jeong, Tae-Min.

Resources on Korean star lore include:

Publications:

- Kim, Sang Hyuk and Lee, Yong Sam. *Song I-Yeong's Armillary Clock*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2179.
- Lee, Eun Hee. *Korean Astronomical Calendar, Chiljeongsan*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2157.
- Nam, Moon-Hyon. *Striking Clepsydras*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2163.
- Park, Changbom Astronomy: Traditional Korean Science. 2008, Ewha Womans University Press. A historical study
- Sang-woon, Jeon. *A History of Science in Korea*, 1998, Seoul: Jimoondang. ISBN 89-88095-11-1.
- Yang, Hong-Jin. *Astronomical Aspects of Korean Dolmens*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2149.

Online:

- Bibliography of Korean Astronomy: http://www.hawaii.edu/korea/biblio/sci_astronomy.html
- *Korean Astronomy* (in Korean), Newton Graphic Science Magazine. Archived from the original on September 28, 2007. Retrieved January 1, 2006: https://web.archive.org/web/20070928055255/http:/www.newtonkorea.co.kr/newton/magazine/newton/2005_01/sub084.htm
- *History of Korean Astronomy*. Archived from the original on September 1, 2005. Retrieved January 1, 2006:

https://web.archive.org/web/20050901164119/http:/www.stormpages.com/swadhwa/hofa/ka.html
- Nha, I.-S. "Korean Astronomy" from a 1997 volume in the ASP Conference Series: http://adsabs.harvard.edu/full/1997ASPC..130..313N

*World Beat: Astronomy in Bloom*, Mercury, Astronomical Society of the Pacific, archived from the original on May 21, 2006. Retrieved January 1, 2006. Published originally in Mercury Magazine, Vol. 28 No. 3, May/June 1999: https://web.archive.org/web/20060521052817/http:/www.astrosociety.org/pubs/mercury/9903/korea.html

**Kra:** The Kra are indigenous to southern China and Vietnam.

**Lampung:** The Lampung peoples (Jamma Lampung, Ulun Lappung, Orang Lampung) are indigenous to Lampung and South Sumatra.

**Lao**: The Lao are indigenous to Laos and Thailand.

**Lawangan**: The Lawangan (Luangan, Dusun Lawangan, Dayak Lawangan) are indigenous to the eastern side of Central Kalimantan and East Kalimantan, Indonesia.

**Lumad**: The Lumad are indigenous to the islands of Mindanao. Subgroups include the B'laan, Bagobo, Madaya, Manobo, Mansaka, Matigsalug, Subanon, and T'boli.

**Ma'anyan**: The Ma'anyan (Maanjan, Meanjan, Eastern Barito Dayak) are indigenous to Borneo.

**Madurese**: The Madurese (Orèng Mâdhurâ, Orang Madura) are indigenous to the island of Madura and the northern part of the eastern salient of Java.

**Makassar**: The Makassar (Macassar) are indigenous to the southern Celebic peninsular regions of Sulawesi Island in Indonesia.

Resources:

- Ammarell, Gene. *Astronomy in the Indo-Malay Archipelago, Encyclopedia of the History of Science, Technology, and Medicine in Non Western Cultures*, 2007.
- Ôhashi, Yukio, Orchiston, Wayne. *The Evolution of Local Southeast Asian Astronomy and the Influence of China, India, the Islamic World*, and the West, 2021.

**Malays:**

The Malays are an Austronesian ethnoreligious group native to the Malay Peninsula, eastern Sumatra, coastal Borneo, and the Riau Archipelago.

**Mamanwa**: The Mamanwa are one of the oldest indigenous groups in the Philippines and inhabit Mindanao, Leyte, and Samar.

**Mandailing**: The Mandailing (Mandailing Batak) are indigenous to North Sumatra and West Sumatra.

**Mandar:**

The Mandar peoples are indigenous to the island of Sulawesi in Indonesia.

Resources:

- Lewis, Briley. *AAPI Heritage Month: Historic Star Navigation in Indonesia*, May 17, 2022.

- Rasyid, Adli A., Hidayat, Taufiq. *Star Patterns in Mandar Navigation*, In Orchiston, W., and Vahia, M. (eds.), 2020. Exploring the History of Southeast Asian Astronomy: A Review of Current Projects and Future Prospects and Possibilities. Cham (Switzerland), Springer.

**Manggarai**: The Manggarai are indigenous to western Flores in the East Nusa Tenggara province, Indonesia.

**Mangyan**: The Mangyan are indigenous to Mindoro. Subgroups include the Iraya, Alangan, Tadyawan, Tawbuid, Buhid, and Hanunoo.

Resources:

- Cadiz, A. P., Rosales, B. M., Evangelista, L. T., & Maligaya, R. (2019). The Ethnoastronomical Beliefs of Mangyan Indigenous People: Case of Iraya Tribe in Occidental Mindoro. Asia Pacific Higher Education Research Journal (APHERJ), 6(2). https://doi.org/10.56278/apherj.v6i2.1394

**Maonan:** The Maonan people are indigenous to northern Guangxi and southern Guizhou.

**Mein**: The Mein people are a branch of the Yao or Dao people who are indigenous to Hunan province in China.

**Meitei:** The Meitei (Meetei) are indigenous to the Indian state of Manipur.

Resources:

- Khumukcham, Rinku. *Scientific Knowledge as Reflected in the Manipuri Manuscript*, 2019.

**Minahasa**: The Minahasa peoples are indigenous to North Sulawesi province of Indonesia.

**Minangkabau**: The Minangkabau (Minangkabos, Minang) are indigenous to the Minankabau Highlands of Western Sumatra.

Resources:

- Yunis, M, and Delfia, Elly. *Astrolinguitics of Ancient Coastal Minangkabau Community*, 2021.

**Moluccan:** The Moluccans are indigenous to the Maluku Islands in Indonesia.

**Moro:** The Moro (Bangsamoro) are indigenous to Mindanao, Sulu, and Palawan.

Resources:

- De Guzman, Daniel. Stars Through the Eyes of Ancient Filipinos, The Aswang Project, 2017.

**Muna**: The Muna (Wuna) are indigenous to the islands of Buton and Muna in Indonesia.

**Myanmar:** The principal people of Myanmar (formerly Burma) is the Bamar people.

**Naga**: The Naga people are indigenous to northeastern India and northwestern Myanmar.

**Nias**: The Nias (Ono Niha, Orang Nias) are indigenous to the island of Nias of the west coast of Sumatra.

**Ngaju**: The Ngaju people (Dayak Ngaju, Dayak Biaju) are indigenous to the Kalimantan province of Borneo.

**Okinawan:**

Online resources include:

- Doughtery, Tom: Stars, Asterisms, and Constellations in Okinawan, October 2015: https://www.thomasdougherty.net/2015/10/24/stars-asterisms-and-constellations-in-okinawan/

**Osing:** The Osing (Using, Lare Osing, Lare Using) are a subgroup of the Javanese people indigenous to the easternmost part of Java.

**Pakpak**: The Pakpak (Batak Pakpak, Pakpak Dairi) are indigenous to North Sumatra, Indonesia.

**Patani Malay**: These are Malay people indigenous to Thailand.

**Perak Malays**: The Perak Malays are indigenous to the Malaysian state of Perak.

**Rakhine**: The Rakhine (Arakanese) are indigenous to the Rakhine stare of Myanmar.

Resources:

- Hamacher, Duane. *Identifying seasonal stars in Kaurna astronomical traditions*, Journal of Astronomical History and Heritage, Vol 18 (1), 2015.

**Sán Dìu:** The Sán Dìu (San Deo, Trai, Trai Dat, Man Quan Coc) peoples are indigenous to northern Vietnam.

**Sangihe**: The Sangihe (Tau Sanger, Sangir) are indigenous to the Sangir Islands in Sulawesi and the southern part of Mindanao.

**Sasak**: The Sasak (Dengan Sasaq, Orang Sasak) are indigenous to the island of Lombok, Indonesia.

Resources:

- Awaludin, Muhammad. Etnoastronomi Perbintangan Masyarakat Lombok, Universitas Islam Negeri Mataram, 2024.

**Semai:** The Semai (Mai Semai, Sengoi Hik) are indigenous to the center of the Malay peninsula.

**Simalungun**: The Simalungun (Simalungun Batak) peoples are indigenous to North Sumatra.

**Simeulue**: The Simeulue (Simalur, Simeuloë, Simulul, Long Bano, Devayan) are indigenous to Simeulue Island.

**Sumbawa**: The Sumbawa (Tau Samawa, Orang Sumbawa) are indigenous to the western and central region of Sumbawa Island in Indonesia.

**Sundanese:** The Sundanese are an Austronesian ethnic group indigenous to the western part of Java Island in Indonesia.

Resources:

- *Astronomy in Sundanese Manuscripts*, BRIN Press Release (National Research and Innovation Agency), No : 81/SP/HM/BKPUK/IX/2024

**Tagalog:** The Tagalog people are indigenous to the Metro Manila and Calabarzon regions and the Marinduque province of southern Luzon, and are a majority in the provinces of Bulacan, Bataan, Nueva Ecija, Aurora, and Zambales in Central Luzon and the island of Mindoro.

**Temiar**: The Temiar are a Senoic group indigenous to the Malay Peninsula, residing mainly in Perak, Pahang, and Kelantan.

**Tenggerese:** The Tenggerese people are indigenous to the Tengger Mountains of eastern Java.

**Terengganuan** Malays: This is a sub group of Malays indigenous to the state of Terengganu on the east coast of the Malay Peninsula.

**Thai:** The Thai (Siamese) people are indigenous to Thailand.

**Toba Batak**: The Toba Batak people are indigenous to the Toba Regency, Humbang Hasundutan Regency, Samosir Regency  North Tapanuli Regency, Central Tapanuli Regency (with Sibolga and its surrounding regions), and part of the Dairi Regency in Sumatra.

**Toraja**: The Toraja are indigenous to South Sulawesi, Indonesia.

**Vietnamese**:

Resources:

- Volkov, Alexei: Astrology and Hemerology in Traditional Vietnam: https://journals.openedition.org/extremeorient/282?lang=en

**Visayan:** The Visayans are indigenous to the Vasayas, to the southernmost islands south of Luzon, and Mindanao.

**Zo**: The Zo people are indigenous to northeastern India, western Myanmar, and southeastern Bangladesh. This includes the Ao, Angami, Sumi (Sema), Lotha, Tangkhul, and Konyak groups.

## Middle Earth:

These are the Elvish skies of Middle Earth in the works of English writer, poet, philologist, and academic J. R. R. Tolkien CBE FRSL (1892 – 1973) who is best known for his books *The Hobbit*, the *Lord of the Rings Trilogy* and the *Silmarillion*. He was extremely creative and diligent in his creation of cultures for his stories, and this included the names of constellations, stars, and planets. Some of the asterisms and stars that he named he never associated with any of today's constellations, but those that I've listed here were or can be inferred from his writings, his notes, and reports of his son (and executor) Christopher Tolkien.

Resources include:

Online:

- Constellations of Middle Earth: https://askmiddlearth.tumblr.com/post/56780916166/constellations-of-middle-earth
- Tolkien Gateway: http://tolkiengateway.net/wiki/Constellations

NOTE: Jim Manning and Alexander Wolf have created an Elvish sky culture map for Stellarium, but it hasn't been uploaded to the Stellarium site as of the time of writing.

## Near East:

This Section includes Arabic and Islamic cultures of the Levant and Eastern Mediterranean.

**Arabic**: The Arabs were the keepers of scientific knowledge between 800 and 1200 C.E. and used Ptolemy's classical 48 constellations. Arab astronomer Abū al-Husayn 'Abd Al-Rahmān al-Sūfī (903 - 986), known also by his Latinized name of Azophi, is most well-known for this as he systematically revised Ptolemy's catalogue of stars. You can download a copy of it here: Book of the stars by al-Ṣūfī (died 986): Critical edition with commentary by Khalid al-Ajaji, digital edition, 2021 AD

Al-Sūfī produced a revised and updated version of Ptolemy's Almagest in a major book called Kitab suwar al-kawakib (The Book of Fixed Stars), completed around 964 CE. As Ptolemy had described stars

but not named them, Al-Sūfī listed the Arab's names for these stars along with his estimates of magnitudes. Al-Sūfī included two drawings of each constellation, one as it is seen in the sky and one reversed right to left as it would appear on a celestial globe. The oldest surviving copy was produced by his son around 1010 CE and is preserved in the Bodleian Library, Oxford (MS Marsh 144). Another good source is the text *al-Durrah al-muḍīyah fī al-ʻamāl al-shamsīyah ('Pearls of brilliance upon the solar operations')*. of Al Achsasi Al Mouakket (c. 1650), which later was latinized to *Calendarium*. Other key resources include:

- Ibn Qutaybah, Al-Dinawarī, Abū Muḥammad ʻAbd Allah b. Muslim (died ~ 889), Kitab al-Anwāʾ (Book of meteorolgy), (Arabic print of the original book, Daʾirat al-Maʻarif al-Osmania, Hydarabad, India, 1956)
  أبو محمد عبد الله بن مسلم ابن قتيبة الدينوري )توفي 276 هـ(، كتاب الأنواء في مواسم العرب، دائرة المعارف العثمانية، حيدر أباد، الهند، 1375 هـ
- Al-Marzūqī, Abū ʻAli Aḥmad b. Muḥammad b. al-Ḥassan (died 1030), Al-Azminah wa al-amkinah (Times and Places), (Arabic print of the original book in 2002, World of Books, Beirut, Lebanon).
  الإمام أبو علي أحمد بن محمد بن الحسن المرزوقي )توفي سنة 421 هـ(، الأزمنة والأمكنة، تحقيق د. محمد نايف الدليمي، عالم الكتب، بيروت، لبنان، 1422 هـ.
- Al-Ṯaqafī, ʻAbd Allah b. Ḥussayn b. ʻĀṣim (died ~ 1012), Al-Anwāʾ wa al-azminah (Meteorology and times), (Arabic print of the original book in 1996, Dar al-jeel, Beirut, Lebanon).
  عبد الله بن حسين بن عاصم الثقفي )توفي 403 هـ(، الأنواء والأزمنة، تحقيق: د. نوري حمودي القيسي، د. محمد نايف الدليمي، دار الجيل، بيروت، لبنان، 1416 هـ.
- Al-Farāhīdī, abū ʻAbd al-Raḥmān al-Ḫalīl b. Aḥmad (died ~ 786 AD), Kitab al-ʻayn, a lexicon titled: The book of ʻayn (Arabic letter العين), (Arabic print of the original book, 1980 – 1985).
  أبو عبد الرحمن الخليل بن أحمد الفراهيدي )توفي 170 هـ(، كتاب العين، 1400 – 1405 هـ.

I describe Arabic stations of the moon below in Lunar Mansions, Stations of the Moon and Nakshatra.

The Arabic asterisms for Stellarium were contributed by Khalid Alajaji and Kutaibaa Akraa (kutaibaa@gmail.com).

Arabic resources include:

Publications:

- Adams, Danielle K. *Rain Stars Set, Lunar Stations Rise: Multivalent Textures of Pre-Islamic Arabian Astronomy and the Hegemonic Discourse of Order*, PhD Thesis, University of Arizona, 2018.
- Ahmad, I. & Khalid Shaukat, S. "Muslim Moon Sightings" in Mercury (the magazine of the Astronomical Society of the Pacific), May/June 1995, p. 38.
- Al Ajaji K. *Explanation of the Poem of Mohammad Al-Qadhi of Anwaa and Stars Sharh qasidat al-Qadhi fi al-Anwaa wa al-Nujoom* (شرح قصيدة محمد العبدالله القاضي في الأنواء والنجوم) , January 2014 ISBN 978-603-01-2118-2
- Al-Jallad, Ahmad. *Addendum to A. Al-Jallad, An Ancient Arabian Zodiac, Part 1 (AAE 25 214-30),* 2014.
- Al-Jallad, Ahmad. *An Ancient Arabian Zodiac. The constellations in the Safaitic inscriptions, Part 1*, Arabian Archaeology and Epigraphy, Volume 25, Number 2, 2014, pp. 214-230.
- Al-Jallad, Ahmad. *An Ancient Arabian Zodiac. The constellations in the Safaitic inscriptions, Part I1,* Arabian Archaeology and Epigraphy, Volume 27, Issue I, 2016, pp. 84-106).

- Al-Mukrī Muhammad. [Taʹrīf manāzil alkamar] Les mansions lunaires des Arabes; A de Calassanti-Motylinski published in Alger, Imprimerie orientale, 1899.
- al-Sayed, Sahira. *A lexicon and analysis of English words of Arabic origin*, 1973.
- Assasi, Reza. *The Origins of Ka'ba and the Celestial Order*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 122.
- Baker, Patricia. *The Frescoes of Amra*, Saudi Aramco World, Volume 31, Number 4, July/August, 1980, pp. 22-25).
- Brown, Laurel. *The astronomies of al-Sufi's "Book of the Constellations of the Fixed Stars",* 2009.
- Brunet, J-P., Nadal, R., and Vibert-Guigue, Cl. *The Fresco of the Cupola of Qusayr Amra*, Centaurus, Volume 40, 1998, pp. 97-123.
- Caboni, Stefano. *Following the Stars: Images of the Zodiac in Islamic Art*, 1997.
- Caiozzo, Anna. *Images du ciel d'Orient au Moyen Âge. Une histoire du zodiaque et de ses représentations dans les manuscrits du Proche-Orient musulman*, 2003.
- Dairat Al-Ma'arif Al-Othmanyyah. *Al-Sufi, Book of Fixed Stars*, Arabic print p. 194 by Hayderabd /Deccan India 1954
- Davis, George A., Jr. Pronunciations, Derivations, and Meanings of a Selected List of Star Names, Sky Publishing, 1971.
- Dorn, Bernhard. *Description of the Celestial Globe Belonging to Major-General Sir John Malcolm, G.C.B., K.L.S., &c. &c., Deposited in the Museum of the Royal Asiatic Society of Great Britain and Ireland*, Transactions of the Royal Asiatic Society of Great Britain and Ireland, Vol. 2, No. 1, pp. 371 – 392, xii, 1829.
- Gatto, Katherine. and Bahler, Ingrid. *The Lapidary of King Alfonso X the Learned: A Critical Edition*, 1997.
- Gingerich, Owen "Islamic Astronomy" in Scientific American, April 1986, vol. 254, p74. (Available on the web at: http://faculty.kfupm.edu.sa/PHYS/alshukri/PHYS215/Islamic_astronomy.htm)
- Gingerich, Owen. *Zoomorphic Astrolabes and the Introduction of Arabic Star Names into Europe*, in: King, David. and Saliba, George. [eds.], From Deferent to Equant, 1987, pp. 89-104.
- Gingerich, Owen. *Zoomorphic Astrolabes and the Introduction of Arabic Star Names into Europe*, Annals New York Academy of Sciences, 1987, pp. 89-104.
- González-García, A. César and Belmonte, Juan Antonio. *Interactions Between Islamic and Christian Traditions in the Iberian Peninsula*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1695.
- González-García, A. César and Belmonte, Juan Antonio. *Orientation of Hittite Monuments*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg 1783.
- Gousset, Thérèse. *Le Liber de locis stellarum fixarum d'Al-Sufi, ms. 1036 de la Bibliothèque de l'Arsenal de Paris: une reattribution*, Arte medievale, Volume 2, 1984, pp. 93-108.

- Greenfield, Jonas. *An Astrological Text from Qumran* in: Greenfield, Jonas. et al. (Editors). Al kanfei Yonah: Collected Studies of Jonas C. Greenfield on Semitic Philology, Volume 1, 2001.
- Hafez, Ihsan. *Abd al-Rahman al-Sufi and his book of the fixed stars: a journey of re-discovery*, PhD Thesis, James Cook University, 2010.
- Hafez, Ihsan., Stephenson, F., and Orchiston, Wayne. *Ábdul-Rahmān al-Şūfī and his Book of the Fixed Stars: A Journey of Re-discovery*, in: Orchiston, Wayne., Nakamura, Tsuko., and Strom, Richard. (Editors). Highlighting the History of Astronomy in the Asia-Pacific Region, 2011, pp. 121-138.
- Hawkins, Gerald. *The Sky When Islam Began*, Archaeoastronomy Bulletin, Volume 1, Number 3, May 1987, pp. 6-7.
- Heidarzadeh, Tofigh. *Islamic Astronomical Instruments and Observatories*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1917.
- Heuter, Gwyneth. *Star Names - Origins and Misconceptions*, Vistas in Astronomy, Volume 29, Part 3, 1986, pp. 237-251.
- Hiskett, M. *The Arab Star-Calendar and Planetary System in Hausa Verse*, Bulletin of the School of Oriental Studies, University of London, Volume 30, Number 1, 1967, pp. 158-176.
- Hobden, Heather. *Ulughbek and his Observatory in Samarkand*, 1999.
- Ibn Qutaybah (b. 828 d. 884 or 889), *Kitab al-Anwa'a*, pp 6,7 (Arabic print of the original book in 1956 in India Hydarabad/Deccan
- Ibn Qutaybah (b. 828 d. 884 or 889), *Kitab al-Anwa'a,* p. 45 (Arabic print of the original book in 1956 in India Hydarabad/Deccan)
- Ibn Qutaybah (b. 828 d. 884 or 889), Kitab al-Anwa'a, p 54 (Arabic print of the original book in 1956 in India Hydarabad/Deccan)
- Ibn Qutaybah (b. 828 d. 884 or 889), Kitab al-Anwa'a, p 74 (Arabic print of the original book in 1956 in India Hydarabad/Deccan)
- Juste, David. *Les Alchandreana primitifs: Étude sur les plus anciens traités astrologiques latins d'origine arabe*, Xe siècle, 2007.
- Kennedy, Edward. *A Survey of Islamic Astronomical Tables*, 1956.
- King, David A., “Mathematical Astronomy in Islamic Civilization,” in Selin, H., ed. Astronomy Across Cultures: The History of Non-Western Astronomy. 2000, Kluwer Academic Publishers, pp. 585-613.
- King, David A. *Astronomy in the Service of Islam*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 181.
- King, David A. *In Synchrony with the Heavens, Studies in Astronomical Timekeeping and Instrumentation in Medieval Islamic Civilization*. 2005, Brill Publishers. Multi-volume, authoritative study.
- King, David. *The Star-Names on Three 14th-Century Astrolabes from Spain, France and Italy*, in: Folkerets, Menso. and Lorch, Richard. (2000). SIC ITUR AD ASTRA: Studien zur Geschichte der Mathematik und Naturwissenschaften, 2000, pp. 307-333).
- Knobel, Edward Ball. *On a Catalogue of Stars in the Calendarium of Mohammad Al Achasasi Al Mouakket*, Monthly Notices of the Royal Astronomical Society, 55, June 1895, pp. 429 – 438.

- Kuehn, Sara. *The Dragon in Medieval Islamic Astrology and its Indian and Iranian Influences*, paper delivered at the Indira Gandhi National Centre for the Arts, New Delhi, 2013 Feb 3.
- Kunitzsch P. and Smart T. *A Dictionary of Modern Star Names: A Short Guide to 254 Star Names and their Derivations* 2006
- Kunitzsch, Paul. *A Medieval Reference to the Andromeda Nebula*, The Messenger, Volume 49, 1987, pp. 42-43.
- Kunitzsch, Paul. *A Note on Star Names, Especially Arabic, and their Literature*, in: The Arabs and the Stars, XXIV, 1989, pp. 478-480.
- Kunitzsch, Paul. and Langermann, Y. *A Star Table from Medieval Yemen*, Centaurus Volume 45, Issues 1-4, December 2003, pp. 159-174).
- Kunitzsch, Paul. *al-Manazil (Lunar Mansions)*, in: Encyclopaedia of Islam. (2nd-edition, Volume VI, 1991, pp. 374-376.
- Kunitzsch, Paul. *al-Nudjum (The Stars),* in: Encyclopaedia of Islam. (2nd-edition, Volume VIII, 1993, pp. 97-105.
- Kunitzsch, Paul. *Al-Sufi and the Astrolabe Stars*, Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften, Band 6, 190, pp. 151-166.
- Kunitzsch, Paul. An Unknown Arabic Source for Star Names." In: Swarup, Govind., Bag, A. and Shukla, Kripa. [eds.], History of Oriental Astronomy - Proceedings of an International Astronomical Union Colloquium Number 91, New Delhi, India, 13-16 November 1985, pp. 155-163.
- Kunitzsch, Paul. *Celestial Maps and Illustrations in Arabic-Islamic Astronomy*, in: Forêt, Philippe. and Kaplony, Andreas. (Editors). The Journey of Maps and Images on the Silk Road, 2008, pp. 175-180.
- Kunitzsch P. *Encyclopaedia of the History of Science, Technology, and Medicine in Non-Western Cultures*, Helaine Selin, *Ibn Qutayba*, p 429
- Kunitzsch P. *Encyclopaedia of the History of Science, Technology, and Medicine in Non-Western Cultures*, Helaine Selin, *Lunar Mansions in Islamic History*, p 520
- Kunitzsch, Paul. *European Celestial Globes with Arabic Inscriptions*, Der Globusfreund, Volume 43/44, 1995/1996, pp. 135-142.
- Kunitzsch, Paul. *How we Got Our "Arabic" Star Names*, Sky and Telescope, Volume 65, Number 1, January 1983, pp. 20-22.
- Kunitzsch, Paul. *John of London and his Unknown Arabic Sources*, Journal for the History of Astronomy, Volume 17, Number 1, February 1986, pp. 51-57.
- Kunitzsch, Paul. *Mintaket al-Burudj (The Zodiac),* in: Encyclopaedia of Islam. (2nd-edition, Volume VI, 1991, pp. 81-87.
- Kunitzsch, Paul. *On the Medieval Arabic Knowledge of the Star Alpha Eridani*, in: The Arabs and the Stars, VI, 1989, pp. 108-117.
- Kunitzsch, Paul. *Peter Apian and 'Azophi': Arabic Constellations in Renaissance Astronomy*, in: The Arabs and the Stars, XXIII, 1989, pp. 117-124.
- Kunitzsch, Paul. *Remarks on Possible Relations Between Ancient Arabia and the Neighbouring Civilizations, as Found in Some Old Star Names*, in: Pre-Islamic Arabia, Studies in the History of Arabia, Volume II, 1986, pp. 201-205.
- Kunitzsch, Paul. and Smart. Tim. *Short Guide to Modern Star Names and Their Derivations*, 1986.

- Kunitzsch, Paul. *Star catalogues and star tables in mediaeval Oriental and European astronomy*, Indian Journal of History of Science, Volume 21, Number 2, 1986, 113-122.
- Kunitzsch, Paul. *Star Catalogues and Star Tables in Medieval Oriental and European Astronomy*, in: The Arabs and the Stars, 1989, pp.113-122.
- Kunitzsch, Paul. *Stars and Numbers: Astronomy and Mathematics in the Medieval Arab and Western Worlds*, 2004.
- Kunitzsch, Paul. Stars in Arabic-Islamic Science, in: Selin, Helaine. [ed.], Encyclopaedia of the History of Science, Technology, and Medicine in Non-Western Cultures, 1997, pp. 910-912.
- Kunitzsch P. *The Arabs and the Stars*, 1989, Variorum reprints Northampton, Al-Manazil, Item XX pp 1-7.
- Kunitzsch, Paul. *The Astrolabe Stars of al-Sufi*, Astrolabica, Tome 5, 1989, pp. 7-14.
- Kunitzsch, Paul. *The Astronomer Abu 'l-Husayn al-Sufi and his Book on the Constellations*, in: The Arabs and the Stars, XI, 1989, pp. 56-81
- Kunitzsch, Paul. *The Chapter on the Fixed Stars in Zaradusht's Kitab al-Mawalid*, Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften, Band 8, 1993, pp. 241-249.
- Kunitzsch, Paul. *The Chapter on the Stars in an Early European Treatise on the Use of the Astrolabe*, Suhayl, Volume 1, 2000, pp. 243-250.
- Kunitzsch, Paul. *The star catalogue commonly appended to the Alfonsine Tables*, Journal for the History of Astronomy, Volume 17, 1986, pp. 89-98.
- Kunitzsch P., *Untersuchungen zur Sternnomenklatur der Araber*, 1961, No 22, p. 40
- Kunitzsch P. *Untersuchungen zur Sternnomenklatur der Araber*, 1961, No 127, p. 69
- Kunitzsch P. *Untersuchungen zur Sternnomenklatur der Araber*, 1961, No 106, p. 62
- Kunitzsch P. *Untersuchungen zur Sternnomenklatur der Araber*, 1961, No 238b, p. 96
- Laffitte, Roland. *De l'akkadien Zibânîtu`a l'arabe Al-Zubânâ en passant par le mandéen zibânâtâ*? Semitica, Cahiers de l'Institut d'Études Sémitiques du Collège de France, Number 50, 2002, pp. 193-197.
- Laffitte, Roland. *Héritages Arabes: Des noms arabes pour les étoiles*, 2005
- Laffitte, Roland. *Le Ciel des Arabes: Apport de l'uranographie arabe*, 2012.
- Laffitte, Roland. *Les noms sémitiques des signes du zodiaque, et Babylone `a Baghdad*, Comptes rendus du GLECS, Tome XXXIV, 2002, pp. 97-118. [
- Laffitte, Roland. *Quelques noms de signes du zodiaque sudarabique*, Matériaux Arabes et Sudarabique, GELAS, Nouvelle Série X, 2000 – 2002, pp. 159-173.
- Laffitte, Roland. *Sur le zodiaque sudarabique*, Arabia, IREMAM, Aix-en-Provence & ISIAO, Number 1, 2004, pp. 79-89.
- Lane, Edward W. *Arabic-English Lexicon*, 1863, London: Willams & Norgate, p 2861
- Langermann, Y. *Arabic cosmology*, Early Science and Medicine, Volume 2, Number 2, June 2007.
- Lebling, Robert. *Arabic in the Sky*, Saudi Aramco World, Volume 61, Number 5, September/October 2010, pp. 24-33).
- Lippincott, Kristen. *Ibn Al-Hātim on the Talismans of the Lunar Mansions*, Journal of the Warburg & Courtauld Institutes, Volume 50, 1987, pp. 57-81.

- Lippincott, Kristen. *'More on Ibn Al-Hātim*, Journal of the Warburg and Courtauld Institutes, Volume 51, 1988, pp. 188-190.
- Lisan al-Arab awq (عوق).
- Lisan al-Arab jawn (جون).
- Montelle, Clemency. *Islamic Mathematical Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1909.
- *Moon Stations and Agriculture Seasons*. A bulletin by the Agriculture Administration of the Chamber of Commerce in Riyadh, Saudi Arabia. 2002
- Nash, Harriet. *Star Clocks and Water Management in Oman*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1941.
- Pingree, David. *A Greek List of Astrolabe Stars*, in: Folkerts, Menso. and Lorch, Richard. [eds.], Sic Itur Ad Astra: Studien Zur Geschichte Der Mathematik und Naturwissenschaften, 2000, pp. 474-477.
- Rehmus, E. *The Arabic star-names*, Verbatim, Volume 5, Winter 1978, pp. 5-6.
- Rhoads, Jack W. *A Reduced Star Catalogue Containing 537 Named Stars*, National Aeronautics and Space Administration Technical Memorandum 33-507, JPL, 1971.
- Ruis-Piniés, Mònica. *Qibla in the Mediterranean*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1687.
- Saliba, George. A History of Arabic Astronomy: Planetary Theories during the Golden Age of Islam. 1994, New York University Press. A scholarly history.
- Saliba, Georg. *Contemplating the stars*, in: Rippin, Andrew. (Editor). The Islamic World, 2013, pp. 294-297.
- Salih Al-Shethri, Timetable for farmers Jadwal fi ilm al-harth ala hisaab al-shuthoor (علم في جدول الشثور حساب على الحرث) ISBN 9960-49-971-5
- Samso, Julio. *Lunar Mansions and Timekeeping in Western Islam*, Suhayl, Volume 8, 2008, pp. 121-161.
- Sarma, Nataraja. *Diffusion of Astronomy in the Ancient World*, Endeavour, Volume 24, Issue 4, 2000, pp. 157-164.
- Savage-Smith, Emilie. *Celestial Mapping*, in: Harley, John. and Woodward, David. [eds.], The History of Cartography, Volume 2, Book 1: Cartography in the Traditional Islamic and South Asian Societies, Chapter 2, 1992, pp. 12-70.
- Savage-Smith, Emilie. and Belliolli, Andrea. *Islamicate Celestial Globes: Their History, Construction, and Use*, 1985.
- Schjellerup. *Description des Etoiles Fixes*, 1874, p. 163. (translation into French)
- Schmidl, Petra G. *Islamic Folk Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1927.
- Sela, Shlomo. *Al-Farghānī on the 48 Ptolemaic Constellations: Newly Discovered Text in Hebrew Translation,* Aleph: Historical Studies in Science and Judaism, Volume 16, Number 2, 2016, pp. 249-365.
- Sela, Shlomo. *The Astrological-Astronomical Encyclopedia in MS Paris* 1058, Aleph, Volume 14, Number 1, 2014, pp. 189-241.

- Soltysiak, Arkadiusz. *Ancient Persian Skywatching and Calendars*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1901.
- Steiner, George F. *Archaeoastronomy and Bedouin Star-Lore in the Rock Art of the Negev Desert,* Mediterranean Archaeology and Archaeometry, Vol. 17, No. 3, 2017, pp. 243 – 260.
- Tibbetts, Gerald. *Arab Navigation in the Indian Ocean Before the Coming of the Portuguese*, 1971.
- Van Gent, Robert H. *Al Sufi's Book of the Images of the Fixed Stars and its Influence on Islamic and European Celestial Cartography*, Institute for History and Foundations of Science, Utrecht University, 2010.
- Varisco, Daniel. *Ethnoastronomy and the Arab Agricultural Almanac*, in: Chamberlain, Von Del., Carlson, John. and Young, Mary. (2005). Songs from the Sky: Indigenous Astronomical and Cosmological Traditions of the World, 2005, pp. 26-31.
- Varisco, Daniel Martin. *Folk Astronomy and Calendars in Yemen*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1935.
- Varisco, Daniel. *Islamic Folk Astronomy*, in: Selin, Helaine. [ed.], Astronomy Across Cultures, 2000, pp. 615-650.
- Varisco, Daniel. *Medieval Folk Astronomy and Agriculture in Arabia and the Yemen*, 1997.
- Varisco, Daniel. *The Agricultural Marker Stars in Yemeni Folklore*, Asian Folklore Studies, Volume 52, Number 1, 1993, pp. 119-142.
- Varisco, Daniel. *Stars and Texts in Arabia*, Archaeoastronomy & Ethnoastronomy News, Number 16, June Solstice, 1995.
- Varisco, Daniel. *The Origin of the anwā' in Arab Tradition*, Studia Islamica, Number 74, 1991, pp. 5-28.
- Varisco, Daniel. *The Rain Periods in Pre-Islamic Arabic*, Arabica, Tome 34, Fascicle 2, July, 1987, pp. 251-266).
- Zangger, Eberhard, and Gautschy, Rita. *The Hittite Rock Sanctuary of Yazilikaya: A Lunisolar Calendar from c. 1250 B.C.,* in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 105.

Online:

- Adams, Danielle K. *Whose Stars? Our Heritage of Arabic Astronomy*, 2018 December 18: https://www.planetary.org/articles/whose-stars-arabian-astronomy
- al-Muqrī, Muhammad: Kitāb al-anwā' http://www.uranos.fr/DOCU_03_T03.htm
- Arab and Islamic Astronomy (Leslie Welser): http://www.starteachastronomy.com/arab.html
- Arabic Star Names: A Treasure of Knowledge Shared by the World. https://muslimheritage.com/arabic-star-names/Constellations Illustrations by Al-Sufi: Images of a manuscript of Al-Sufi book with sample artistic illustrations and star table samples. http://www.atlascoelestis.com/alsufi%20Suwar.htm
- Bibliothéque Nationale de France; Départment des manuscrits, Arabe 5036 https://gallica.bnf.fr/ark:/12148/btv1b60006156.image.f7.paginationStar Names — Their Lore and Meaning, Richard Hinckley Allen: https://penelope.uchicago.edu/Thayer/E/Gazetteer/Topics/astronomy/_Texts/secondary/ALLSTA/home.html

- Predicting the First Visibility of a Lunar Crescent Site: http://www.staff.science.uu.nl/~gent0113/islam/islam_lunvis.htm Also see https://moonsighting.com/ and http://www.icoproject.org/?&l=en
- Records of Eclipses in Muslim Astronomy: https://muslimheritage.com/precious-records-of-eclipses-in-muslim-astronomy-and-history/
- Ridpath, Ian: "Al-Sufi's Constellations": http://www.ianridpath.com/startales/alsufi.htm
- Shuttleworth, Martyn: Islamic Astronomy: https://explorable.com/islamic-astronomy
- Savage-Smith, Emilie, and Belloli Andrea P. A. *Islamicate Celestial Globes: Their History, Construction, and Use*, 1985, Smithsonian Institution Press, Washington, D.C.
- Stirone, Shannon: How Islamic Scholarship Birthed Modern Astronomy: http://www.astronomy.com/news/2017/02/muslim-contributions-to-astronomy
- The Islamic Calendar: http://www.webexhibits.org/calendars/calendar-islamic.html or https://www.timeanddate.com/calendar/islamic-calendar.html
- The Islamic Cresent's Observation Project "ICOP" for granting a permission to use there lists of "Arabic" Constellations and star names. https://www.astronomycenter.net/star.html
- The Original "Ulg Beack" manuscript of the "Kitab suwar al-kawakib" (The Book of Fixed Stars) Paris Digital Library "Gallica". https://gallica.bnf.fr/ark:/12148/btv1b60006156.image.f7.pagination
- The Role of Astronomy in Islam (Dr. Shirin Haque-Copilah): http://moonsighting.com/articles/roleofislam.html
- UNESCO: "Islamic Astronomy" (part of the Portal to the Heritage of Astronomy Site): http://www2.astronomicalheritage.net/index.php/show-theme?idtheme=15

Video:

- Ifland, Peter.: The History of the Sextant (in which Arabic astronomers played a major role): http://www.mat.uc.pt/~helios/Mestre/Novemb00/H61iflan.htm
- Saliba, Dr. George. Video of a talk on the role of Arabic/Islamic astronomy in medieval and Renaissance culture (1 hr. 25 min): http://www.youtube.com/watch?v=ZsJ4Zrf8miA
- Great Astronomers from the Medieval Islamic World (with physicist Jim Al-Khalili): https://www.youtube.com/watch?v=i6lDhRW3R2Y
- Islamic Contributions to Astronomy and Navigation (13 min): https://www.youtube.com/watch?v=r-T5yxZWXzs
- Latest Cosmic Discoveries and the State of Arab Astronomy by Prof. Nidhal Gessoum (the discussion of the state of Arab astronomy starts 40 min in): https://www.youtube.com/watch?v=9oRglJN1Wdw


**Banjara**: The Banjara people are a large ethnic group spread all over India.

**Bedouin:** The Bedouin (Beduin, Bedu, /ˈbɛduɪn/; Arabic: بَدْو, Romanised: badū, singular بَدَوِي badawī) are indigenous to the Arabian Peninsula, North Africa, the Levant, and Mesopotatmia. An important source of our knowledge of their sky culture comes from their 17th century poet al-Ḫalāwī and the poet Moḥammad al-Qāḍī (~1809 – 1886) who described their stations of the moon with their local names.

The sky culture for Stellarium was created by Khalid al-Ajaji, turath.alfalak@gmail.com.

Publications include:

- Al-ʿUbūdī, Moḥammad b. Nāṣir, Al-Amthāl al-ʿāmiyah fi Nağd, The folk proverbs in Najd, 4 volumes, Dar Al-Thulūthiyah, Riyadh, Saudi Arabia, 2010.
  محمد بن ناصر العبودي، الأمثال العامية في نجد، دار الثلوثية، الرياض، المملكة العربية السعودية، 1431 هـ.
- Al-ʿUbūdī, Moḥammad b. Nāṣir, Muʿğam al-Uṣūl al-faṣīḥah lil-alfāẓ al-dariğah, Lexicon of the classical root of the common dialect words, 13 volumes, King AbdulAzeez Library, Riyadh, Saudi Arabia, 2009.
  محمد بن ناصر العبودي، معجم الأصول الفصيحة للألفاظ الدارجة، مكتبة الملك عبد العزيز، الرياض، المملكة العربية السعودية، 1430 هـ.
- Al-Azhār al-nadiyah min ashʿār al-badiyah, A collection of Bedouins poetry by the name: The moist flowers of Bedouin Poetry, 18 volumes, Al Ma'arif library, Tayef, Saudi Arabia.
  الأزهار النادية من أشعار البادية، مكتبة المعارف، الطائف، المملكة العربية السعودية.
- Min ādābinā al-shaʿbiyah fi al-ğazīrah al-ʿarabiyah, A collection of poetry by Mandeel al-Fuhaid, Our local literature of the Arab peninsula, 10 volumes, Riyadh, Saudi Arabia.
  منديل بن محمد الفهيد، من آدابنا الشعبية في الجزيرة العربية.
- Al-Suwaydā, ʿAbd al-Raḥman, Al-Amthāl al-shaʿbiyah al-sāʾirah fi manṭiqat Ḥāʾil, The local common proverbs of the Ḥayel region, Riyadh, Saudi Arabia, 2007.
  عبد الرحمن بن زيد السويداء، الأمثال الشعبية السائرة في منطقة حائل، الرياض، المملكة العربية السعودية، 1428 هـ.
- Al-Suwaydā, ʿAbd al-Raḥman, Durar min al-shiʿr al-shaʿbī, The best of folk poetry, 3 volume Poetry collection, Riyadh, Saudi Arabia, 1999.
  عبد الرحمن بن زيد السويداء، درر من الشعر الشعبي، الرياض، المملكة العربية السعودية، 1420 هـ.
- Al-Suwaydā, ʿAbd al-Raḥman, Shuʿarāʾ al-ğabal al-shaʿbiyūn, The Poets of the mountain, 5 volume Poetry collection, Riyadh, Saudi Arabia, 2013.
  عبد الرحمن بن زيد السويداء، شعراء الجبل الشعبيون، الرياض، المملكة العربية السعودية، 1434 هـ.
- Al-Ajaji, Khalid, Sharḥ Qaṣidat al-Qāḍī fi al-anwāʾ wal-nuğūm, Explanation of al-Qāḍī poem of anwāʾ and stars, Riyadh, Saudi Arabia, 2013.
  خالد بن عبد الله العجاجي، شرح قصيدة القاضي في الأنواء والنجوم، الرياض، المملكة العربية السعودية، 1434 هـ. Al-Ajaji, Khalid, Sharḥ Maʾthūrāt al-Ḫalāwī al-falakiyah, Explanation of al-Ḫalāwī astronomy poems, Riyadh, Saudi Arabia, 2018.
  خالد بن عبد الله العجاجي، شرح مأثورات الخلاوي الفلكية، الرياض، المملكة العربية السعودية، 1439 هـ.

- Bailey, Clinton. *Bedouin Star-Lore in Sinai and the Negev*, Bulletin of the School of Oriental and African Studies, University of London, Volume 37, Number 3, 1974, pp. 580-596.


**Canaanite:**

Resources include:


- Van der Toom, Karel, Becking, Bob, Van der Horst, Pieter Willem. Dictionary of Deities and Demons in the Bible, William B. Eerdmans Publishing, 1999.


**Gond**: The Gond people are indigenous to central India.

**Hebrew:** Only a few stars and constellations are mentioned in the Tanakh (the Hebrew Old Testament) and their identification is uncertain. Some of the asterisms in this handbook were the work of astronomer Noah Brosch at Tel Aviv University.

Resources include:

- Adams, Edward. *Graeco-Roman and Ancient Jewish Cosmology*, in: Pennington, Jonathan. and McDonough, Sean. (Editors). Cosmology and New Testament Theology, 2008, pp. 5-27.
- Ben-Dov, Jonathan. *A Jewish Parapegma? Reading 1 Enoch 82 in Roman Egypt*, in: Stern, Sacha. and Burnett, Charles. (Editors). Time, Astronomy, and Calendars in the Jewish Tradition, 2014, pp. 1-26.
- Ben-Dov, Jonathan. *Astronomy in the Book of Enoch*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1889.
- Ben-Dov, Jonathan. *Astronomy and Calendars at Qumran*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1895.
- Brodetsky, Selig. *Astronomy in the Babylonian Talmud*, 1979.
- Clements, Ronald. *Kôtāb*, in: Botterweck, Gerhart., Ringgren, Helmer., and Fabry, Heinz-Josef. [eds.], Theological dictionary of the Old Testament: Volume VII, 1974, pp. 75-85.
- Cooley, Jeffrey. *Astral Religion in Ugarit and Ancient Israel*, Journal of Near Eastern Studies, Volume 70, Number 2, October 2011, pp. 281-287.
- Cooley, Jeffrey. *Celestial Divination in Ugarit and Ancient Israel: A Reassessment*, Journal of Near Eastern Studies, Volume 71, Number 1, April 2012, pp. 21-30.
- Foerster, G. *Representations of the zodiac in ancient synagogues and their iconographic sources*, Eretz-Israel, Volume 18, 1987, pp. 165-181.
- Foerster, G. *The Zodiac in Ancient Synagogues and its Place in Jewish Thought and Literature*, Eretz-Israel, Volume 19, 1987, pp. 225-234.
- Goldstein, Bernard R. *Star Lists in Hebrew*, Centaurus XXVIII, Vol. 28., pp. 185 – 208, 1985.
- Greenfield, J. and Sokoloff, Michael. *An Astrological Text from Qumran (4Q318) and Reflections on some Zodiacal Names*, Revue de Qumran, Tome 16, Number 64, December 1994, pp. 507-525.
- Gwynn, David., Bangert, Susanne., and Lavan, Luke. *Religious Diversity in Late Antiquity*, 2010.
- Hachlili, Rachel. *Ancient Mosaic Pavements*, 2009.
- Hachlili, Rachel. *The Zodiac in Ancient Jewish Art: Representation and Significance*, Bulletin of the American Schools of Oriental Research, Number 228, December 1977, pp. 61-77.
- Herberger, Charles. *Samson Strides the Skies*, Griffith Observer, March 1987.
- Jacobus, Helen. *Zodiac Calendars in the Dead Sea Scrolls and Their Reception: Ancient Astronomy and Astrology in Early Judaism*, 2014.
- Lemaire, André. *Coupe astrale inscrite et astronomie araméenne*, in: Avishuir, Y. and Deutsch, R. [eds]. Michael: Historical, Epigraphical and Biblical Studies in Honor of Michael Heltzer, 1999, pp. 195-221.
- Litwa, M. David., *Magi and the Star*, in: How the Gospels Became History: Jesus and Mediterranean Myths, 2019, pp. 103-114.
- Lobel. Andrea. *Diviners in High Places: On Interpreting the Night Skies of the Ancient Near East*, in: To Fix Torah in Their Hearts: Essays on Biblical Interpretation and Jewish Studies in Honor of B. Barry Levy, Hebrew Union College Press, 2018, pp. 23-58.
- Magness, Jodi. *Heaven on Earth: Helios and the Zodiac Cycle in Ancient Palestinian Synagogues*, Dumbarton Oaks Papers, Volume 59, 2005, pp. 1-52.
- Magness, Jodi. *Helios and the Zodiac Cycle in Ancient Palestinian Synagogues*, in: Dever, William. and Gitin, Seymour. [eds.] Symbiosis, Symbolism, and the Power of the Past: Canaan, Ancient

Israel, and Their Neighbors from the Late Bronze Age Through Roman Palaestina, 2003, pp. 363-389.

- McKay, John. *Helel and the Dawn-Goddess: A Re-Examination of the Myth in Isaiah XIV 12-15*, Vetus Testamentum, Volume 20, Fascicle 4, October 1970, Pages 451-464.
- McKay, John. *Religion in Judah under the Assyrians*, 1973.
- Mendillo, Michael. and Shapiro, Aaron. *Scripture in the Sky: Jeremias Drexel, Julius Schiller, and the Christianizing of the Constellations*, in: Corsini, Enrico. [ed.], The Inspiration of Astronomical Phenomena VI, 2011, pp. 181-195.
- Milikowsky, Chaim. *"Kima" and the Flood in "Seder Olam" and B. T. Rosh Ha-Shana Stellar Time-Reckoning and Uranography in Rabbinic Literature*, Proceedings of the American academy for Jewish Research, Volume 50, 1983, Pages 105-132.
- Pennington, Jonathan. and McDonough, Sean. [eds.] *Cosmology and New Testament Theology*, 2008.
- Popović, Mladen. *Networks of Scholars: The Transmission of Astronomical and Astrological Learning Between Babylonians, Greeks and Jews*, in: Ben-Dov, Jonathan. and Sanders, Seth. [eds.], Ancient Jewish Sciences, 2014.
- Reed, Annette. *Writing Jewish Astronomy in the Early Hellenistic Age: The Enochic Astronomical Book as Aramaic Wisdom and Archival Impulse*, 2017.
- Rubin, David. *Astrology in the Torah: A Comparative Study of Astrological Themes in the Hebrew Bible and Babylonian Talmud*, MA Dissertation, 2019.
- Schwartz, Seth. *Imperialism and Jewish Society*. 200 B.C.E. to 640 C.E, 2001.
- Schwartz, Seth. *On the program and reception of the synagogue mosaics*, in: Levine, L. and Weizz, Z. [eds.], From Dura to Sepphoris: Studies in Jewish Art and Society in Late Antiquity, 2000, pp. 165-181.
- Sela, Shlomo. *Al-Farghānī on the 48 Ptolemaic Constellations: Newly Discovered Text in Hebrew Translation,* Aleph: Historical Studies in Science and Judaism, Volume 16, Number 2, 2016, pp. 249-365.
- Sela, Shlomo: *Chapter 17 of Ḥešbon Mahalakhot ha-Kokhavim by Abraham Bar Ḥiyya–The First Hebrew Catalog of Constellations, Fixed Stars and Lunar Mansions: Critical Edition*, English Translation and Commentary, Suhayl 15 (2016 – 2017), pp. 231-296.
- Smick, Elmer. *Another Look at the Mythological Elements in the Book of Job*, Westminster Theological Journal, Volume 40, Number 2, Spring, 1978, pp. 213-228.
- Smick, Elmer. *Mythology and the Book of Job,* Journal of the Evangelical Theological Society, Volume 13, 1970, 101-108.
- Stern, Sacha. *Ancient and Medieval Jewish Calendars*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1883.
- Stieglitz, Robert. *The Hebrew Names of the Seven Planets*, Journal of Near Eastern Studies, Volume 40, Number 2, April, 1981, pp. 135-137.
- Um, Hongsuk. *Observation of Celestial Phenomena in the Gospel of Matthew*, 2015.
- Wolters, Al. *An Allusion to Libra in Daniel 5*, in: Galter, Hannes. and Scholz, Bernhard. [eds.], Die Rolle der Astronomie in den Kulturen Mesopotamiens, 1993, pp. 291-306.
- Zatelli, Ida. *Astrology and the Worship of the Stars in in the Bible*, Zeitschrift für die Alttestamentliche Wissenschaft, Band 103, 1991, pp. 86-99.

**Kolam**: The Kolam people are indigenous to central India.

**Meitei**: The Meitei (Manipuri) people are indigenous to the state of Manipur in northeastern India.

**Mughal Empire**: The Mughal Empire (1526 – 1857) took up most of the Indian subcontinent.

Resources include:

- Beverige, Annette Susannah: The Babur-nama in English (Memoirs of Babur), London, Luzac, 1922.

**Omani:** The Omani people are found in Oman but also on the Swahili Coast.

**Persian**:

Resources include:

- Assasi, Reza. Swastika: *The forgotten constellation representing the chariot of Mithras*, in: Sprajc, Ivan. and Pehani, Peter. (Editors). Ancient Cosmologies and Modern Prophets, 2013, pp. 407-418.
- Beck, Roger. *The astronomical design of Karakush, a royal burial site in ancient Commagene: an hypothesis, Culture and Cosmos*, Volume 3, Number 1, 1999, pp. 10-34.
- Boll, Franz. Ancient Observations of Coloured Stars (*Antike Beobachtungen farbiger Sterne*), 1918.
- Brunner, C. J. *Astronomy and Astrology in Iran II. Astronomy and astrology in the Sasanian period*, in: Yarshater, Ehsan. (Editor). Encyclopedia Iranica II, Fascicle 8, 1987, pp. 862-868.
- Duchesne-Guillemin, Jacques. *Origines iraniennes et babyloniennes de la nomenclature astrale*, Comptes-rendus des séances de l'Académie des Inscriptions et Belles-Lettres, Volume 130, Issue 2, 1986, pp. 234-250.
- Filliozat, Jean. *Notes on Ancient Iranian and Indian Astronomy*, Journal of the K.R. Cama Oriental Research Institute, Volume 42, 1969, pp. 100-135.
- Filliozat, Jean. *Notes d'Astronomie Ancienne de l'Iran et de l'Inde (I, II et II),* Journal Asiatique, Tome CCL, 1962, pp. 325-350.
- Jakubiak, Krzysztof. and Soltysiak, Arkadiusz, *Mesopotamian Influence on Persian Sky-watching and Calendar: Part II. Ishtar and Anahita,* Archaeologia Baltica, Volume 10, 2007.
- MacKenzie, D. *Constellations*, in: Yarshater, Ehsan. [ed.], Encyclopaedia Iranica, Volume VI, Fascicle 2, 1992, pp. 147-150.
- Gropp, Harald. *Mathematics and Astronomy of the Mandaeans,* in: Macuch, Rudolf. and Voight, Ranier. (Editors). "Und das Leben ist siegreich!" 2008, pp. 63-70.
- Jakubiak, Krzysztof. and Soltysiak, Arkadiusz. *Mesopotamian Influence on Persian Sky-watching and Calendar: Part I. Mithra, Shamash, and Solar Festivals*, in: Soltysiak, Arkadiusz. (Editor). Proceedings of the Conference Time and Astronomy in Past Cultures, 2006, pp. 51-62.
- Jeremias, Alfred. *Handbuch der Altorienalischen Geisteskultur*, 1929.
- Malandra, William. *An Introduction to Ancient Iranian Religion: Readings from the Avesta and Achaemenid Inscriptions*, 1983, pp. 140-149.
- Panaino, Antonio. Astral Characters of Kingship in the Sasanian and Byzantine Worlds, in: Accademia nazionale dei Lincei ; Istituto italiano per l'Africa e l'Oriente. [eds., pbs.], Convegno internazionale la Persia e Bisanzio, Roma, 14-18 ottobre 2002, pp. 555-594

- Panaino, Antonio: *Between Astral Cosmology and Astronomy: The Mazdean Cycle of 12,000 Years and the Final Renovation of the World*, date N/K.
- Panaino, Antonio. *Sadwēs, Anāhīd and the Manichaean Maiden of Light*, in: Özertural, Zekine. and Wolkens, Jens. [eds.], Der östliche Manichäismus Gattungs- und Werksgeschichte. Vorträge des Göttinger Symposiums vom 4./5. März 2010, pp. 121-131.
- Panaino, Antonio. *The Cardinal Asterisms in the Sasanian Uranography*, in Gyselen, R. [ed.], La science des cieux: sages, mages, astrologues, 1999.
- Panaino, Antonio. *The Classification of Astral Bodies in the framework of an Historical Survey of Iranian traditions*, in: Bläsing, Uwe., Arakelova, Victoria., and Weinreich, Matthias. [eds.], Studies on Iran and The Caucasus In Honour of Garnik Asatrian, 2015, pp. 229-244.
- Panaino, Antonio. *The Decans in Iranian Astrology,* East and West, Volume 37, Numbers 1-4, December, 1987, pp. 131-137).
- Panaino, Antonio. *Tistrya, Part 1: The Avestan hymn to Sirius*, Instituto Italiano per il Medio ed Estremo Oriente, Roma [= Serie orientale Roma, Volume 68, Number 1, 1990.
- Panaino, Antonio. *Tistrya, Part 2: The Iranian myth of the star Sirius*, Instituto Italiano per il Medio ed Estremo Oriente, Roma [= Serie orientale Roma, Volume 68, Number 2, 1995.
- Panaino, Antonio. *Tistrya e la stagione delle plogge*, Acme, Volume XXXIX, Fascicolo I, Gennaio-Aprile, 1986, pp. 125-133.
- Panaino, Antonio. *Uranographica Iranica II: Avestan hapta.sru- and merezu-: Ursa Minor and the North Pole?.* Archiv für Orientforschung, Volume XLII/XLIII, 1995/1996, pp. 190-207.
- Panaino, Antonio. *Zodiac*, Encyclopaedia Iranica, online edition, 2009.
- Patgambar, Perochak. *Some Natural Phenomena and Celestial Bodies in the Yezidi Folk Beliefs*, Iran & the Caucasus, Volume 10, Number 1, 2006, pg. 21-24.
- Pingree, David. and Brunner, C. *Astrology and Astronomy in Iran*, in: Yarshater, Ehsan. [ed.], Encyclopaedia Iranica, Volume II, 1987, pp. 858-871.
- Poorbahram, Mitra. and Kargar, Mahdi. *The predicates of ancient Iran astronomy in the narratives of history,* International Journal of Management and Humanity Sciences." Volume 3, Number 2, 2014, pp. 1367-1369.
- Tuman, Vladimir. *The Cerberus Slab of Hatra may represent Important Astronomical Events*, Quarterly Journal of the Royal Astronomical Society, Volume 24, 1983, pp. 14-23.
- Weidner, Ernst. *Fixsterne*, in Weidner, Ernst and von Soden, Wolfram (Eds.) Reallexikon der Assyriologie und Vorderasiatischen Archäologie. (Volume 3), 1957 – 1971.


**Sinhalese:**

The Sinhalese people (Cingalese, Hela, Sinhala) are an Indo-Aryan ethnic group indigenous to Sri Lanka.

**Ugaritic:** Ugarit is an ancient port city in northern Syria, closely connected to the Hittite Empire.

**Urdu:** Urdu is an Indo-Aryan language of south Asia and is the principal language of Pakistan and is recognized as an official language in India.

**Vedic:** India is a big place with a lot of different cultures. The principal sky culture is Vedic and has ancient roots. Their asterisms show a Seleucid influence. Their asterisms include Nakṣatra-s, which are lunar stations which I discuss below under Lunar Mansions, Stations of the Moon, and Nakshatra. Their sidereal zodiac is divided into 12 equal parts. Each twelfth part (of 30 degrees) is called a sign or rashi

(Rāśi (राशि). They used both solar and lunar calendars, and I'm not going to get into the details of that here. Hindi and Urdu asterisms that I've listed are related to this Vedic system.

Vedic asterisms for Stellarium were created by Tanmoy Saha and contributors from the Sanskrit-coders community (https://github.com/sanskrit-coders ) especially Vishvas Vasuki (https://github.com/vvasuki/).

Resources for Vedic ethnoastronomy include:

Publications:


- Bhagwath, Arvind. *Understanding Origin of Mythologies,* January 2019.
- Brennand, W. *Hindu Astronomy*, Chas. Straker & Sons, London, 1896.
- Brown, David: *Cultural Connections between Ancient India and Ancient Mesopotamia: The Evidence of the Astral Sciences*, 12 – 14 September 2014.
- Dillon, Judith. *The Nakshatras of the Moon*, 2018.
- Hamp, Eric. *The Principal Indo-European Constellations*, in: Heilmann, Luigi. (Editor). Proceedings of the Eleventh International Congress of Linguists, 2 Volumes, 1974, pp. 1049-1055.
- Haudry, Jean. *The Cosmic Religion of the Indo-Europeans*, in Languages and Cultures: Studies in Honor of Edgar C. Polomé, Editors Mohammad Ali Jazayery and Werner Winter. 1988, Berlin: Mouton de Gruyter
- Ivankovic, Milorad. *The Cult of Stars and Astronomy in Vedic Era*, Institute of Ivankovic Village Ancestral Narrated Kinsfolktradtion and Oral Entrustment, December 2021.
- Johnson-Roehr, Susan N. *Observatories of Sawai Jai Singh II,* in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2017.
- Kirillov, Andrej. *Calendar Meaning of Timber-Grave Community Pottery Ornament in Accordance with the Vedic Tradition of the Sacrifice*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 92.
- Leitz, Andreas. Astronomy in Indian Vedic Period, Sumer and Babylon: A Comparative Study, Vedic Religion Institute for Vedic Research and Publication, 2019.
- Malville, J. McKim. *Astronomy of Indian Cities, Temples, and Pilgrimage Centers*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1969.
- O'Brien, Steven. *Divine Twins,* in Encyclopedia of Indo-European Culture, J. P. Mallory and D.Q. Adams, Eds. 1997, London: Fitzroy Dearborn.
- Ôhashi, Yukio. *Astronomy in the Vedic Age*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1949.
- Pingree, David. *Astronomy and Astrology in India and Iran*, ISIS, Vol. 54, Part 2, No. 176, 1963.
- Plofker, Kim. *Mathematical Astronomy in India*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1981.
- Ramasubramanian, Krishnamurthi. *Kerala School of Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2001.
- Rath, Sanjay. *Introduction to Vedic Astrology*, Jaganath Institute of Vedic Astrology, 2022.
- Sarma, Sreeramula Rajeswara. *Astronomical Instruments in India*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2007.

- Shylaja, B. S. *Use of Astronomical Principles in Indian Temple Architecture*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1959.
- Sivertsen, Harry. *Ancient Indian Calendars: Confirmation of the great antiquity of learning and information recording in India*, June 2109.
- Sriram, M. S. *Vākya System of Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1991.
- Vahia, Mayank Nalinkant, Yadav, Nisha, and Menon, Srikumar M. *Perspectives on Early Astronomy in Indian Context*, National Council of Science Museums, Kolkota, India, 2014.
- Vowahsen, Andreas Cosmic Architecture in India. 2001, Prestel. On the astronomical and ceremonial observatories built by Jai Singh in the 17th & 18th centuries.

Online:

- Bhujle, Sudha (sbhujle@gmail.com) and Vahia, M. N. (vahia@tifr.res.in), *Possible Period of the Design of Nakshatras and Abhijit*,Powai, Mumbai, Tata Institute of Fundamental Research, Mumbai: https://www.tifr.res.in/~archaeo/papers/Others/Possible%20period%20of%20the%20design%20of%20Nakshatras.pdf
- de Santillana, Giorgio, and von Dechend, Hertha. *Hamlet's Mill: An Essay on Myth & the Frame of Time*: https://archive.org/details/HamletsMill
- History Of Calendar-Panchanga Committee Report: https://archive.org/details/HistoryOfCalendarPanchangaCommittee/page/n77/mode/2up?view=theater
- Rao, N. K. *Aspects of Prehistoric Astronomy in India*: http://bulletin.astron-soc.in/05December/3305499-511.pdf
- Tilak, Bala Gangadhar. *Orion or Researches into The Antiquity Of The Vedas*, https://archive.org/details/in.gov.ignca.5110
- Tilak, Bal Gangadhar. *The Arctic Home in the Vedas*, https://archive.org/details/arctichm/page/n21/mode/2up
- *Vedic Chronology and Vedanga Jyotisha*, Bala Gangadhar Tilak: https://archive.org/details/vedicchronologya033083mbp/page/n5/mode/2up

Videos:

- Conversation with Prof RN Iyengar : Ancient indian astronomy and engineering (Recorded July 2017): https://www.youtube.com/watch?v=UeaXs1O9qGw


**Yemeni:** Resources include:


- Varisco, Daniel Martin. *The Magical Significance of the Lunar Stations in the 13th Century Yemeni Kitab al-tabsira fi'ilm al-Nulum of Al-Malik al-Ashraf*, Quaderni di Studi Arabi, Vol. 13, Divination magie pourvoirs au Yémen, Istituto per l'Oriente C. A. Nallino, 1995, pp. 19 – 40.


**Zoroastrian:** Zoroastrianism or Mazdayasna is one of the world's oldest continuously practiced religions and originated in the teachings of the Iranian speaking prophet Zoroaster (7th or 6th century B.C.E.).

Resources include:

- Panaino, Antonio. *Between Astral Cosmology and Astrology: The Mazdean Cycle of 12,000 Years and the Final Renovation of the World*, in: Stewart, Sarah., Williams, Alan., and Hintz, Almut. [eds.], The Zoroastrian Flame. Exploring Religion, History and Tradition, 2016, pp. 113-134.
- Raffaelli, Enrico G. Astrology and Religion in the Pahlavi Texts, 2018.
- Sebastina, Kelly. Cosmology of the Mazdayasnis, date N/K.


## North American:

**American:** Some of the asterisms listed in this handbook discovered by astronomer Edward Emerson Barnard (1857 – 1923). Some of them were created or named by astronomer, uranographer and mathematician Elijah Burrit (1794 – 1838), eccentric American educator and uranographer William Croswell (1760 – 1834), astronomer John Martin Schaeberle (1853 – 1924), astronomer Benjamin Apthorp Gould (1824 – 1896), astronomer Dalmero Francis Brocchi (1871 – 1955), astronomer and author Tom Lorenzin and amateur astronomers Sue French, Glenn Chaple, Barb Biever, Dan Posey, Troy Stratton, Ray Howard, Stephen Saber, Eddie Carpenter, Bram Weisman, John Davis, and Frank Leiter.

Resources include:


- *Asterisms: Small Star Patterns for Telescopes and Binoculars*, Demelza Ramakers, Sky and Telescope Magazine.
- *Pattern Asterisms*, John A. Chiravalle.
- *1000+ Field Guide to Deep Sky Observing, 1987,*Tom Lorenzin and Tim Sechler.


**Canadian:** Canadian astronomers who named or created some of the asterisms in this handbook include RASC members Father Lucien Kemble (1922 – 1999), Randy Pakan, and comet chaser David Levy.

Resources include:


- AstroHam Intro to Asterisms webpage of the William Brydone Jack Unit of the NB Centre of the RASC: http://weadick.ca/astroham/resources/
- David H. Levy, Logbook 0, 1962: https://www.rasc.ca/levy-logbook-volume-00
- David H. Levy, Logbook 1, 1962-64: https://www.rasc.ca/levy-logbook-volume-01
- David H. Levy, Logbook 2, 1964 – 66: https://www.rasc.ca/levy-logbook-volume-02
- David H. Levy, Logbook 3, 1966 – 67: https://www.rasc.ca/levy-logbook-volume-03
- David H. Levy, Logbook 4, 1967 – 68: https://www.rasc.ca/levy-logbook-volume-04
- David H. Levy, Logbook 5, 1968 – 69: https://www.rasc.ca/levy-logbook-volume-05
- David H. Levy, Logbook 6, 1969 – 70: https://www.rasc.ca/levy-logbook-volume-06
- David H. Levy, Logbook 7, 1970: https://www.rasc.ca/levy-logbook-volume-07
- David H. Levy, Logbook 7B, 1971 -76: https://www.rasc.ca/levy-logbook-volume-7b
- David H. Levy, Logbook 8, 1970 – 78: https://www.rasc.ca/levy-logbook-volume-08
- David H. Levy, Logbook 9, 1978 – 79: https://www.rasc.ca/levy-logbook-volume-09
- David H. Levy, Logbook 10, 1979 – 80: https://www.rasc.ca/levy-logbook-volume-10
- David H. Levy, Logbook 11, 1980 – 81: https://www.rasc.ca/levy-logbook-volume-11
- David H. Levy, Logbook 12, 1981 – 82: https://www.rasc.ca/levy-logbook-volume-12
- David H. Levy, Logbook 13, 1982 – 83: https://www.rasc.ca/levy-logbook-volume-13
- David H. Levy, Logbook 14, 1983 – 86: https://www.rasc.ca/levy-logbook-volume-14
- David H. Levy, Logbook 15, 1986 – 89: https://www.rasc.ca/levy-logbook-volume-15
- David H. Levy, Logbook 16, 1989 – 95: https://www.rasc.ca/levy-logbook-volume-16

- David H. Levy, Logbook 17, 1995 – 96: https://www.rasc.ca/levy-logbook-volume-17
- David H. Levy, Logbook 18, 1996 – 2000: https://www.rasc.ca/levy-logbook-volume-18
- David H. Levy, Logbook 19, 2000 – 01: https://www.rasc.ca/levy-logbook-volume-19
- David H. Levy, Logbook 19B, 2001 – 02: https://www.rasc.ca/levy-logbook-volume-19b
- David H. Levy, Logbook 20, 2002 – 04: https://www.rasc.ca/levy-logbook-volume-20
- David H. Levy, Logbook 21, 2004 – 05: https://www.rasc.ca/levy-logbook-volume-21
- David H. Levy, Logbook 22, 2005 – 07: https://www.rasc.ca/levy-logbook-volume-22
- David H. Levy, Logbook 23, 2007 – 10: https://www.rasc.ca/levy-logbook-volume-23
- David H. Levy, Logbook 24, 2010 – 13: https://www.rasc.ca/levy-logbook-volume-24
- David H. Levy, Logbook 25, 2013 – 15: https://www.rasc.ca/levy-logbook-volume-25
- David H. Levy, Logbook 26, 2015 – 19: https://www.rasc.ca/levy-logbook-volume-26
- Pakan, Randy. *Midnight Ramblings, Volume 1A, 1988 - 89*. Logbook of Randy's observations: https://www.rasc.ca/randy-pakan-logbook-1a
- Pakan, Randy. *Midnight Ramblings, Volume 1B, 1989 - 91*. Logbook of Randy's observations: https://www.rasc.ca/randy-pakan-logbook-1b
- Pakan, Randy. *Midnight Ramblings, Volume 2, April 1991 – April 1994*. Logbook of Randy's observations: https://www.rasc.ca/randy-pakan-logbook-2
- Pakan, Randy. *Midnight Ramblings, Volume 1A, 1994 - 96*. Logbook of Randy's observations: https://www.rasc.ca/randy-pakan-logbook-3

**First Nations Resources:** I'm trying to be careful and sensitive in my descriptions of First Nations asterisms. Many First Nations people prefer that their own knowledge keepers tell the stories associated with these asterisms, and some such as the Diné prefer that they only be told at certain seasons of the year.

Resources on First Nations sky lore include:

Publications:

- Ancient Eyes Looked to the Skies: Sunwatchers of the Southwest (Activities in Archaeoastronomy for the Classroom, Grades 4-8, from the Chabot Science Center): http://multiverse.ssl.berkeley.edu/Portals/0/CalendarInTheSky/Resources/Lesson%20Plans/SunwatchersOfTheSouthwest.pdf
- Bol, Marcia, ed. *Stars Above, Earth Below: American Indians and Nature*. 1993, Carnegie Museum of Natural History.
- Cajete, G. A. *Igniting the Sparkle: An Indigenous Science Education Model*, 1999, Kivaké Press, NC.
- Canby, T. *"The Anasazi: Riddles in the Ruins"* in National Geographic, Nov. 1982, p. 554.
- Cannon, Chris M. *Northern Dene Astronomical and Sky Related Knowledge: A Comparative Anthropological Study*, University of Alaska, 2021.
- Carlson, J. *"America's Ancient Skywatchers"* in National Geographic, vol. 177, #3, Mar 1990, p. 76.
- Chamberlain, Von Del. *Starborn: Analysis of Astronomical Symbolism in a Native American Legend*, Utah Valley State College, Salt Lake City, Utah, USA, 1999.
- Dempsey, Frank *"Aboriginal Sky Lore of the Pleiades Star Group in North America"* in Journal of the Royal Astronomical Society of Canada, vol. 103, p. 233 (2009).
- Dempsey, Frank *"Aboriginal Sky Lore of the Constellation Orion in North America"* in Journal of the Royal Astronomical Society of Canada, vol. 103, p. 65 (2009).

- Dempsey, Frank *"Aboriginal Sky Lore of the Big Dipper in North America"* in Journal of the Royal Astronomical Society of Canada, vol. 102, p. 59 (2008).
- Krupp, Edwin C. *Rock Art of the Greater Southwest*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 593.
- Krupp, E. *"Whiter Shade of Pale"* in Sky & Telescope, July 2000, p. 86. A rock that looks like the Milky Way and was used in ceremonies by Native Americans in California.
- Lee, Annette S., Wilson, William, Tibbets, Jeffrey, Gawboy, Carl.*Ojibwe Sky Star Map Constellation Guide: An Introduction to Ojibwe Star Knowledge*.
- Littman, Mark. The People, Hansen Planetarium, Salt Lake City, UT, 1976.
- MacDonald, John. *The Arctic Sky: Inuit Astronomy, Star Lore and Legend*. 1998, Royal Ontario Museum. Astronomical stories and explanations from Northern Canada and Alaska, including a discussion of 8 interpretations of the aurora.
- MacIvor, M. *Redefining Science Education for Aboriginal Students*, 1995, in M. Battiste, & J. Barman (Eds.), *First Nations Education in Canada: The Circle Unfolds* (pp.73-98). Vancouver, B.C.: UBC Press.
- Malville, J. McKim and Munro, Andrew. *Great Houses and the Sun- Astronomy of Chaco Canyon*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 577.
- Malville, J.M. & Putnam, Claudia. *Prehistoric Astronomy in the Southwest*. 1993, Johnson Books. A nice introductory book about cultures and monuments in the Arizona area.
- Marshall, Lillian, Marshall, Murdena, Harris, Prune, and Bartlett, Cheryl. *Muin and the Seven Bird Hunters: A Mi'kmaw Night Sky Story*, Cape Breton University Press, 2010.
- Maryboy, Nancy & David Begay. *Sharing the Skies: Navajo and Western Cosmos*. 2006, Indigenous Education Institute & World Hope Foundation.
- Mayo, Gretchen *Star Tales: North American Indian Stories*. 1991, Walker & Co. A book of traditional stories for kids. (See sequel, More Star Tales, from same publisher.)
- Miller, Dorcas *Stars of the First People: Native American Star Myths and Constellations*. 1997, Pruett.
- Monroe, Jean & Williamson, Ray. *They Dance the Sky: Native American Star Myths*. 1987, Houghton Mifflin. Skylore from a number of tribes retold.
- Munson, Gregory E. *Mesa Verde Archaeoastronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 565.
- Murray, William Breen. *Astronomy and Rock Art in Mexico*, Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015.
- Schulz, T. *"Mask of Black God: The Pleiades in Navajo Cosmology"* in Journal of College Science Teaching, Oct. 2005, p. 30.
- Snively, G. & MacKinnon, A. (Eds.). *Thinking Globally About Mathematics and Science Education*, 1995, Vancouver, BC: Centre for the Study of Curriculum & Instruction Development University of B.C.
- Suzuki, David and Knudtson, Peter. *Wisdom of the Elders: Sacred Native Stories of Nature*. 1993, New York: Bantam.
- Time-telling activity that incorporates Navajo culture and history (for grades 3 – 5): http://www.teachervision.fen.com/tv/printables/allynbacon/Ward_020551409x_104-109.pdf
- Vogt, David. *Medicine Wheels of the Great Plains*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 541.

- Williamson, Ray. *Living the Sky: The Cosmos of the American Indian*. 1984, Houghton Mifflin/University of Oklahoma Press. The sky world of Native Americans, through their tales and their observing sites.
- Williamson, Ray. *Pueblo Ethnoastronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 641.
- Williamson, Ray, *Sun-Dagger Sites*, Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 621.


Online:


- Aboriginal Star Knowledge: Native American Astronomy: http://www.kstrom.net/isk/stars/starmenu.html
- American Indian Starlore (compiled by Brad Snowder, Western Washington U.): http://www.wwu.edu/planetarium/a101/archeoastronomy.shtml
- Astronomy and Mythology in Native American Culture: https://www.legendsofamerica.com/na-astronomyculture/
- Exploratorium Chaco Canyon Site: http://www.exploratorium.edu/chaco/index.html
- Garmany, Catharine *Resources for Astronomy Outreach Providers and Teachers of Native Americans* (helpful ideas and materials, from the National Optical Astronomy Observatories): http://www.noao.edu/education/nativeamerican/
- Native American astronomer Dennis Lamenti's Obituary (AAS site): https://aasjournals.github.io/aas-obits-mirror/dennis-j-lamenti-1958-2012.html
- Native Skywatchers main webpage, includes education, art, and community workshops and other resources: https://nativeskywatchers.com/
- Native American Sky: https://www.wwu.edu/astro101/indiansky.shtml
- *Resource Guide for Canadian Aboriginal Astronomy* (by Prune Harris): http://www.integrativescience.ca/uploads/articles/2010May-Harris-Canadian-Aboriginal-astronomy-resource-list(in-press).pdf
- *Science and Culture Nexus -Executive Summary on Indigenous Science and Worldviews*, Aikenhead, G.S., & Huntle, B., November 1997 http://www.usask.ca/education/people/aikenhead/execsum.htm
- *Sky Stories: A First Nations Journey*, Teacher's Resources. NSERC/CRSNG Pacific.
- *Solar Astronomy in the Pre-historic Southwest* (P. Charbonneau, et al): https://www2.hao.ucar.edu/Education/SolarAstronomy
- *Towards a First Nations Cross-Cultural Science and Technology Curriculum for Economic Development, Environmental Responsibility, and Cultural Survival*, Aikenhead, G. S., 1996, Saskatoon, Saskatchewan: Curriculum Studies, University of Saskatchewan. http://www.usask.ca/education/people/aikenhead/iost1996.htm
- *Western Science and Traditional Knowledge – No Gap to Bridge*, Dowdie, J., 2004, The Environment Times. UNEP/GRID-Arendal http://www.environmenttimes.net/article.cfm?pageID=31


Videos:


- Annette Lee (a Native American astronomer discusses her personal development and work in the astronomy of native cultures in this brief video; hers is not the first one you come to, but just go down the page): http://www.northstarstem.org/about
- NASA Connect: Indigenous Astronomers (a segment of NASA Connect's Ancient Observatories episode follows Native American educators Nancy Maryboy and David Begay as they show

examples of structures used to track the sun in the sky) [~7 min]: http://archive.org/details/NasaConnect-Ao-IndigenousAstronomers

The First Nations that I've listed in this handbook include:

**Ahtna:** The Ahtna (Ahtena, Atna, Ahtna-kohtaene, Copper River) people are an Athabaskan speaking people indigenous to the Copper River area of southern Alaska.

**Akimel O'odham**: Akimel O'odham (also spelled Akimel O'otham, "River People"), historically referred to by Europeans as the Pima are indigenous to what is now central and southern Arizona, as well as northwestern Mexico in the states of Sonora and Chihuahua.

**Aleut:** The Aleut (Aleuty, Unangax) are indigenous to the Aleutian Islands in the Bering Sea.

**Algonquin**:

See Anishinaabe, below. The Algonquin include the Aaniiih (A'aninin, Haaninin, Atsina, Gros Ventre, White Clay) people.

**Alutiiq**: The Alutiiq, also known as the Sugpiaq, are indigenous to the coast of south-central Alaska, including Prince William Sound, the Kenai Peninsula, the Alaska Peninsula, and the Kodiak Archipelago.

**Anishinaabe**: The Anishinaabe are a culturally related indigenous people of the Great Lakes region of Canada and the United States. They include the Ojibwe (including Mississaugas), Odawa, Potawatomi, Saulteaux, Oji-Cree and Algonquin peoples.

The Anishinaabe astersisms for Stellarium were contributed by Annette S. Lee, Director of Native Skywatchers, based on the star map Ojibwe Giizhig Anung Masinaaigan - Ojibwe Sky Star Map created by A. Lee, W. Wilson, C. Gawboy.

Resources on their sky lore include:

Publications:

- Lee, Annette Sharon, Wilson, William Peter, Gawboy, Carl. *Ojibwe Sky Star Map Constellation Guidebook: An Introduction to Ojibwe Star Knowledge*, 2014.
- Palmer, William R. *Why the North Star Stands Still and other Indian Legends*, 1957.

Online:

- Morin William, Science North Tour and Trivia, presentation to RASC General Assembly 2022 on Zoom.
- Native Skywatchers Ojibwe Map webpage, includes audio recordings of Ojibwe pronunciation and other resources: https://web.stcloudstate.edu/aslee/OJIBWEMAP/home.html
- Native Skywatchers' main webpage, includes education, art, and community workshops and other resources: https://nativeskywatchers.com/
- Price, Michael Wassegjijig. Underwater Panthers, Thunderbirds, and Anishinaabe Star Knowledge, in Stellar Connections: Explorations in Cultural Astronomy, Smithsonian NMAI Symposium, 20 Oct 2012: https://www.youtube.com/watch?v=CGjuvxPhGn8
- *Star Map and Sky Lore of the Ojibwe Native American People* (compiled by Annette Lee): http://web.stcloudstate.edu/aslee/OJIBWEMAP/home.html
- Vukelich, James: *Ojibwe Word of the Day: Ojigg, the Fisher Constellation*: https://www.youtube.com/watch?v=lYxek_lFFwU

**Apache**: The Apache are a culturally related indigenous people in the Southwestern United States, which include the Chiricahua, Jicarilla, Lipan, Mescalero, Mimbreño, Ndendahe (Bedonkohe or

Mogollon and Nednhi or Carrizaleño and Janero), Salinero, Plains (Kataka or Semat or "Kiowa-Apache") and Western Apache (Aravaipa, Pinaleño, Coyotero, Tonto).

**Apsáalooke:** The Apsáalooke people (historically referred to by Europeans as the Crow Tribe) are indigenous to southern Montana.

Resources include:

- McLeary, Timothy. *The Stars We Know*, 2nd ed. 2012, Waveland.

**Arapaho**: The Arapaho are the indigenous people of the plains of Colorado and Wyoming.

**A:shiwi**: The A:shiwi (historically referred to by Europeans as the Zuni or Zuñi) are Native American Pueblo people native to the Zuni River valley in the United States.

Resources include:

- Animated story of "Coyote and Eagle Steal the Sun and Moon" (from Zuni tradition) [~2 min]: http://www.youtube.com/watch?v=EwyVDadt7QE

**Assiniboine**: The Assiniboine, also known as theHohe or the Nakota or Nakoda, are indigenous people of the northern plains of North America.

**Caribou Inuit:** The Caribou Inuit (Inuktitut: Kivallirmiut/ᑭᕙᓪᓕᕐᒥᑦ), are indigenous to the area west of Hudson's Bay in the Kivalliq Region of Nunavut. They were originally called the Caribou Eskimo by the Danish. Their groups include:

- Ahialmiut (Qamanirjuaq Lake),
- Akilinirmiut (Thelon River, Akiliniq Hills),
- Hanningajurmiut (Garry Lake),
- Harvaqtuurmiut (Kazan River, Yathkyed Lake, Kunwak River, Beverly Lake, Dubawnt River),
- Hauniqtuurmiut (Wilson River, Ferguson River),
- Ahiarmiut (Kazan River, Ennadai Lake, Little Dubawnt Lake and Thlewiaza),
- Paallirmiut (Padlei River, Maguse River, Yathkyed Lake, Dubawant Lake),
- Qaernermiut (Chesterfield Inlet to Rankin Inlet), and
- Utkuhiksalingmiut (Chantrey Inlet, Back River, Baker Lake).

**Cherokee**: The Cherokee are one of the indigenous peoples of the southeastern woodlands of the United States. Their language is part of the Iroquoian language group. They are the second largest federally recognized tribe in the United States.

Resources include:

- "Grandmother Spider Brings the Sun to the Earth" (from the Cherokee tradition, told by Elaine Cohen) 9 [~9 min]: http://www.youtube.com/watch?v=rNBNGL9uLCI (A shorter version is at: http://www.youtube.com/watch?v=rbTkP0gbNGQ )

**Cheyenne**: The Cheyenne peoples are an indigenous tribe of the Great Plains, and consist of two tribes:

- The Só'taeo'o or Só'taétaneo'o (more commonly spelled as Suhtai or Sutaio) and
- The Tsétsêhéstâhese (also spelled Tsitsistas, [t͡sɪt͡shɪstʰɑs].

These tribes merged in the early 19th century.

**Chinookan**: The Chinookan peoples include several groups indigenous to the Pacific Northwest in the United States.

**Chahta**: The Chahta peoples (historically referred to by Europeans as Choctaw) are indigenous to the southeastern United States.

**Chemehuevi:** The Chemehuevi are indigenous to the Great Basin of the United States and are a southernmost branch of the Southern Paiute.

**Chumash:** The Chumash are indigenous to the central and coastal regions of California.

**Cochiti**: The Cochiti are a Keresan-speaking peoples indigenous to the west bank of the Rio Grande near Santa Fe, New Mexico.

**Cocopah**: The Cocopah (Xawitt Kwñchawaay) are indigenous to Baja California.

**Dakota:** The Dakota people are indigenous to the eastern Dakotas, central Minnesota, and northern Iowa. On Stellarium they've put up Lakota, Dakota, and Nakota (Assiniboine) asterisms. These three indigenous people of north-central United States and Canada are known as the Oceti Sakowin – Seven (Council) Fires, consisting of four Dakota bands, two Nakota bands and one Lakota band, where D/N/L are dialectic distinctions. The word D(N/L)akota means "Alliance" and they are also sometimes referred to as the Sioux or the Sioux Nation.

The D(L)akota Star Knowledge files available for Stellarium are an adaptation of the "Makoce Wicanhpi Wowapi, D(L)akota Star Map", created by A. Lee, J. Rock, 2012. More details can be found in the constellation guidebook D(L)akota Star Map Constellation Guide: An Introduction to D(L)akota Star Knowledge. Also available are D(L)akota star map posters, D(L)akota planispheres, curriculum, and other resources.

Online Resources include:

- D(L)akota Map webpage, includes audio recordings of D(L)akota pronunciation and other resources: https://web.stcloudstate.edu/aslee/DAKOTAMAP/home.html
- Hollow Horn Bear, Duane. The Star Boy and the Seven Sisters, https://www.youtube.com/watch?v=uBOervlM4ag&list=TLPQMDUwNjIwMjIRDVrMDNOMqA&index=2

**Dane-zaa**: The Dane-zaa, also known as Dunne-za or Tsattine, historically referred to by Europeans as the Beaver Tribe, is an Athabaskan speaking people indigenous to the Peace River region of Alberta and British Columbia.

**Dakelh**: The Dakelh, historically referred to by Europeans as the Carrier Tribe, is the indigenous people of the central interior of British Columbia.

**Dena'ina:** The Dena'ina (Tanaina) people are an Athabasan speaking people indigenous to the south central Alaska region.

**Dene**: The Dene are an indigenous group of First Nations people inhabiting the northern boreal and Arctic regions of Canada, including:

- Deg Hit'an (Deg Xit'an, Deg Hitan, Degexit'an, Kaiyuhkhotana, Ingalik) whose language is Deg Xinag,
- Denesuline, Dëne Suhne, or Dene Suhne (Chipewyan),
- Tłı̨chǫ (Dogrib, Tlicho),
- T'atsaol'ine or Tets'ot'iné (Yellowknives),
- Deh Gah, Got'ine, Deh Cho, Dene Tha' (Slavey, South Slavey).
- Holikachuk
- Sahtúotine (Sahtú, or North Slave).

- Teetł'it
- Vuntut.
- Wiidiideh.

The term Dene is sometimes a term used to refer to peoples speaking the Na-Dene languages as a whole in Canada and Alaska. Resources include:

- Cannon, Chris M. *Northern Dene Astronomical and Sky-Related Knowledge: A Comparative Anthropological Study*, PhD dissertation, University of Alaska, Fairbanks, December 2021.
- Wilson, Justin. *Northern Dene Constellations as Worldview Projections with Case Studies from the Ahtna, Gwich'in, and Sahtúot'ıne*.

**Dichinanek' Hwt'ana:**

The Dichinanek' Hwt'ana (Upper Kuskokwim, Kolchan, Goltsan, Tundra Kolosh, McGrath Ingalik) are an Athabaskan speaking people indigenous to the Upper Kuskokwim River vilages of Nikolai, Telida, and McGrath.

**Diné**: The Diné (Navajo) are the largest federally recognized tribe in the United States and are the indigenous peoples of Arizona and New Mexico.

The Stellarium asterisms were contributed by Karrie Berglund of Digitalis Education Solutions, Inc. based primarily on the book Star Trails-Navajo by Don Childrey.

Resources on Diné sky lore include:

Publications:

- Chamberlain, Von Del. *Diné (Navajo) Ethno – and Archaeoastronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 629.
- *Sharing the Skies: Navajo Astronomy*, Nancy C. Maryboy, PhD, and David Begay, PhD, 2010, Rio Nuevo Publishers, Tucson, AZ.

Online:

- The Navajo Nation official website: https://www.navajo-nsn.gov/
- Wyatt, Ryan, Maryboy Nancy C., Begay, David, Guinaudeau, Francois. *Thunderbird*, this video part of the *One Sky Project*, 2024: https://www.youtube.com/watch?v=fsuwpzZrSgw&t=615s

**Greenlandic Inuit:** These peoples (Kalaallit, Inughuit, Tunumiit) are the Inuit of Greenland.

**Gwich'in**: The Gwich'in are an Athabaskan-speaking people of northern Canada and Alaska mostly above the Artic Circle. Resources include:

- Cannon, Chris and Holton, Gary. *A Newly Documented Whole-Sky Circumpolar Constellation in Alaskan Gwich'in*, Arctic Anthropology, Vol. 51, No.2, (2014), pp. 1 – 8 (8 pages), University of Wisconsin Press.
- Horowitz, Wayne, Alestine, Andre, and Kritsch, Ingrid. *The Gwich'in Boy in the Moon and Babylonian Astronomy*

**Haida**: The Haida are the indigenous people of Haida Gwaii (previously known as the Queen Charlotte Islands), an archipelago off the coast of British Columbia.

**Hän**: The Hän, Han or Hwëch'in / Han Hwech'in are an Athabaskan-speaking people indigenous to heavily forested area around the Upper Yukon River, Klondike River, Bonanza Creek and Sixtymile River between Alaska and the Yukon Territory.

**Haudenosaunee**: The Haudenosaunee (Hodinöhsyo:nih, "People of the Longhouse"), also known as the Iroquois or Six Nations are an indigenous confederacy in northeastern North America. The English called their five nations the Mohawk, Oneida, Onondaga, Cayuga, and Seneca. Later the Tuscarora people were included in this confederacy.

**Resources**:

- Converse, Harriet M. and Parker, Arthur. *Myths and Legends of the New York State Iroquois*, New York State Museum, Museum Bulletin 125, 1908.
- Curtin, Jeremiah, and Hewitt, J. N. B. *Seneca Fiction, Legends and Myths*, 32nd Annual Report of the Bureau of American Ethnology, 1910-11, Washington, 1918.
- Doxtator, Samantha. *Haudenosaunee Cosmology*, 28 January 2025.
- Doxtator, Samantha. *Indigenous Astronomy as Told by the Haudenosaunee*, 1 February 2024, https://www.youtube.com/watch?v=lfM-Aab-27U
- Hewitt, J. N. B., *Iroquoian Cosmology*, Annual Report, Bureau of American Ethnology, 1903.
- Maxwell, Harrit. *Myths and Legends of the New York State Iroquois*, Education Department Bulletin, NYS Museum, 1908.
- Smith, Erminnie. Myths of the Iroquois, SI-Bureau of Ethnology, 2nd annual report, 1880-1, Washington 1883.
- *Haudenosaunee Astronomy*, Six Nations Polytechnic STEAM Academy, 12 December 2023. https://storymaps.arcgis.com/stories/1d58d12b8f1f4173b5997bb510b18095
- *Hodinöhsyo:nih Star Knowledge,*Deyohahá:ge: 2006.

**Havasupai**: The Havasupai are a Yuman-speaking peoples indigenous to the Grand Canyon area in the United States.

**Hohokam:** The Hohokam culture was prehistoric North American Indians who lived between 200 — 1400 C.E. in the semiarid region of central and southern Arizona.

Resources include:

- Bostwick, Todd W. *Hohokam Archaeoastronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 551.

**Hopi**: The Hopi are a people indigenous to Arizona in the United States.

Resources include:

- Bates, Bryan C. *Hopi and Anasazi Alignments and Rock Art*, Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 607.
- Mc Cluskey, Stephen C. *Hopi and Puebloan Ethnoastronomy and Ethnoscience*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 649.

**Hualapai**: The Hualapai (historically referred to by Europeans as the Walapai) are indigenous to northern Arizona.

**Hul'qumi'num**: Hul'qumi'num is a language group from Coastal British Columbia, which includes three groups:

- Hulquminum or Cowichan, spoken by the Snuneymuxw (Nanaimo), Snaw-naw-as (Nanoose), Stz'uminus (Chemainus), Ts'uubaa-asatx (Lake Cowichan), Halalt, Lyackson, Penelakut, and Lamalchi.

- Hunquminum (Musqueam), spoken by seven First Nations (Musqueam, Tsawwassen, Kwantlen, Tsleil-Waututh, New Westminster Indian Band, Kwikwetlem (Coquitlam), Katzie, and the now extinct Snokomish (Derby people).
- Halqemeylem (Halq'eméylem, Stó:lō") spoken by the Sto:lo (upstream along the Fraser River from Matsqui on to Yale),Ts'elxwéyeqw (Chilliwack, today's Aitchelitz, Shxwhá:y Village, Skowkale, Soowahlie, Squiala, Tzeachten, and Yakweakwioose), Pelóxwlh Mestiyexw (Pilalt/Pil'alt, today's Cheam, Kwaw-kwaw-Apil, and Skwah), Tiyt (Tait) (today's Popkum, Skawahlook, Chawathil, Seabird Island, Shxw'ow'hamel, Union Bar, Peters, and Yale), Pepa:thxetel or Semà:th (Sumas), and the Sq'éwlets/Sqwōwich (Scowlitz or Sq'ewlets)

**Iglulingmiut:** The Iglulingmiut (Igloolik Inuit) are indigenous to Foxe Basin, Qikiqtaaluk Region in Nunavut.

**Ininew**: Ininew (Cree) are the peoples of the Algonquin language family who identify with Cree dialects, including Ininimowin (Swamy Cree), Nihithawiwin (Woods Cree) and Plains Cree and call themselves the Ininewuk. They are indigenous to the area north and west of Lake Superior up into the Northwest Territories.

Resources include:

- Buck, Wilfred. *Atchakosuk: Ininewuk Stories of the Stars*, Manitoba First Nations Education Resource Centre.
- Buck, Wilfred. *Tipiskawi Kisik: Night Time Stories*, Manitoba First Nations Education Resource Centre.

Online resources include:

- Buck, Wilfred. *Atima Atchakosuk: The Dog Stars*: https://www.youtube.com/watch?v=oCcjrF95fmY
- Buck, Wilfred, *Sisikwun, the Rattle*: https://www.youtube.com/watch?v=fksmgAYzj8o
- Buck, Wilfred. *Makinak, the Turtle*. https://www.youtube.com/watch?v=2aKY198dFgM

**Inughuit:** The Inughuit (Inuhuit, Smith Sound Inuit, Arctic Highlanders) are indigenous to Greenland. Old texts refer to them as "Polar Eskimos", but Eskimo is a pejorative term no longer in use.

**Inuit**: The Inuit (/ˈɪnjuɪt/; Inuktitut: ᐃᓄᐃᑦ 'the people', singular: Inuk, ᐃᓄᒃ, dual: Inuuk, ᐃᓅᒃ) are a group of culturally similar indigenous peoples inhabiting the Arctic regions of Greenland, Canada, and Alaska (United States).

Karrie Berglund of Digitalis Education Solutions, Inc. created the asterisms for Stellarium.

Resources on Inuit sky lore include:

Publications:

- MacDonald, John. *The Arctic Sky, Inuit Astronomy, Star Lore and Legend*, 1998, IABN-13: 978-0888544278
- MacDonald, John. *Inuit Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 533.

Online:

- MacDonald, John. The Arctic Sky: Inuit Astronomy, Starlore and Legend, in Stellar Connections: Explorations in Cultural Astronomy, Smithsonian NMAI Symposium, 20 Oct 2012: https://www.youtube.com/watch?v=CGjuvxPhGn8

**Iñupiat:** The Iñupiat (Inupiat, Iñupiaq or Inupiaq) are an Inuit people indigenous to the area of Alaska from Norton Sound to the Bering Sea.

**Inuvialuit**: The Inuvialuit are indigenous to the northern portion of the Mackenzie River region and the western Canadian arctic coast from Barter Island to Cape Bathurst.

**Ivilyuqaletem**: The Ivilyuqaletem (ʔíviĨuqaletem, Cahuilla) are indigenous to inland California.**Kalispel:** The Kalispel (Pend d'Oreille) are indigenous to the Northwest Plateau of North America and today are found mostly in Montana and eastern Washington.

**Kaska**: The Kaska or Kaska Dena are an Athabaskan-speaking ethnolinguistic group living in northern British Columbia and the southeastern Yukon. They have five bands:

- Tu tcogotena (Tu'tcogotena) or Tu cho gha nugga dhal ("Big Water Dwellers") are indigenous to the Tucho (Frances Lake) and the Tucho Tue (Frances River) area stretching to the Hyland and Smith rivers. They hunted also the Too-Ti (Liard) and Tucho Tue (Dease River) areas.
- Ki stagotena (Ki'stagotena or K'áshogot'ı nę) or Tsetotena (Tsay tow tena) ("Mountain Dwellers") indigenous to the south and south east of the Natitu a gotena Kaska. Their traditional range included the valleys of the Dease River south from Net I tue to the northern part of Dease Lake where a natural divide separated them from the inland neighbours.
- Espatodena (E)spa'totena) or Espa tah dena ("Dwellers Among the Wild Goats") and Gata otena ("People Who Hunt Rabbits") are indigenous to a range east of the Tu tcogotena Kaska north of Tsa Tue (Beaver River) and the Nahanni River. They also hunted at the junction of the Atsonne Tue (Moose Dung Water River/Coal River) and Tyagacho (Big River/Liard).
- Naatitu a gotena (Natituʔa'gotena) or Na aw ti to a goTenna ("Dwellers at a Sharp Mountain Where a Little River Starts") are indigenous to the head water country portion of the Liard River called Net I Tue, down to the Canyon above Daylu (Lower Post) which means "a place where we gather to trade". They made seasonal migrations to the salmon runs at Tu disdis Tue (Pelly River) which means "you can see clearly into the deep water". Seasonal fishing also was done at Tuts Algua (Watson Lake) or Lu cho, and game was harvested along Agedze Tue (Hyland River) which means "too much game". The Tu tcogotena Kaska also used the Hyland River and called it Bath-o-too-a (Dangerous River).
- Tse lona (Tse'lona) or Tsay lona ("Mountain Top") are indigenous to the area south and east of the Ki stagotena. They lived and hunted the Rocky Mountain trench headwaters and valleys, the Kechika range over to the Toad River area and north to the Flat River. Some families in this group are known as Tse Ts iyinetena/Tse Tsiyinetena or "Wolf People of the Mountains".

**Kiliwa:** The Kiliwa (Ko'leeu) people are indigenous to northern Baja California.

**Kiowa**: The Kiowa are indigenous to the Great Plains of the United States, originally from western Montana, but migrating into the Rocky Mountains in Colorado in the 17$^{th}$ and 18$^{th}$ centuries and finally into the Southern Plains in the early 19$^{th}$ century.

**Kitkiti'sh:** The Kitkiti'sh (Wichita) people are indigenous to Oklahoma, Texas, and Kansas.

**Kitlinermuit:** The Kinlinermuit (Inuinnait, Copper Inuit) are indigenous to the Kitikmeot region of Nunavut and the Inuviluit Settlement Region in the Inuvik Region of the Northwest Territories. Historically they resided in the area around Coronation Gulf, on Victoria Island, and southern Banks Island.

**Klamath**: The Klamath are indigenous to the Plateau culture area of Southern Oregon and Northern California.

**Koyukon:** The Koyukon peoples are an Athabaskan speaking group indigenous to the area of the Koyukuk and Yukon Rivers.

**Kumeyaay**: The Kumeyaay, also known as Tipai-Ipai and historically referred to by Spanish people as Diegueño, are people indigenous to the northern border of Baja California and the southern border of California in the United States. They consist of three groups:

- Ipai,
- Tipai, and
- Kamia.

**Kuupangaxwichem**: The Kuupangaxwichem (Cupeño) are indigenous to southern California.

**Kwakwa̱ka̱'wakw:** The Kwakwa̱ka̱'wakw (IPA: [ˈkʷakʷəkʲəʔwakʷ]), also known as the Kwakiutl are indigenous to the Pacific Northwest Coast of North America and speak dialects of Kwak'wala (Kwaḱwala, 'Naḱwala, G̱uċala and Ṫłaṫłasiḱwala).

**Lakota**: The Lakota are a people belonging to the Siouan language family indigenous to North and South Dakota.

The seven bands or "sub-tribes" of the Lakota are:

- Sičháŋğu (Brulé, Burned Thighs)
- Oglála ("They Scatter Their Own")
- Itázipčho (Sans Arc, Without Bows)
- Húŋkpapȟa (Hunkpapa, "End Village", Camps at the End of the Camp Circle)
- Mnikȟówožu (Miniconjou, "Plant Near Water", Planters by the Water)
- Sihásapa ("Blackfeet" or "Blackfoot"), and
- Oóhenuŋpa (Two Kettles)

**Lenape**: The Lenape peoples (historically referred to by Europeans as the Delaware Tribe) are an indigenous people of the northeastern woodlands of the United States and Canada.

Resources include:

- Frank, Roslyn M. *Indigenous Understandings: Fusing Landscape and Skyscape*, a talk given at the virtual meeting of the Native American and Indigenous Studies Association (NAISA), June 17, 2021, as part of a round table session "The Benefits of Interdisciplinary Comparative Approaches to Indigenous Ethnoastronomy.

**Maricopa**: The Maricopa (Piipaash) people are indigenous to the area of the Colorado River.

**Meshkwahkihaki:** The Meshkwahkihaki (Meskwakior, Mesquaki), historically referred to by European as Fox Indians or the Fox, are in the Meskwaki language family and indigenous to the Great Lakes region of North America.

**Mi'kmaq**: The Mi'kmaq are the indigenous peoples of the northeastern woodlands of North America, including Atlantic Canada, the Gaspé Peninsula and northeastern Maine.

Resources include:

- Harris, Prune, Marshall, Murdena, Bartlett, Cheryl, and Marshall, Albert. Mi'kmaq Night Sky Stories; *Patterns of Interconnectiveness, Vitality, and Nourishment*, CAPjournal, No.9, September 2010, pp. 14 – 17.

- LeBlanc, Cathy, and Chapman, David, One Moon – Two Eyes (Mi'kmaw Moons), Saint Mary's University: https://www.youtube.com/watch?v=HK-0alcAtRU&t=1805s
- Muin and the Seven Bird Hunters, Mi'kmaw Moons Channel, https://www.youtube.com/watch?v=3GBycod3qC0&t=220s

**Mississaugas**:

See Anishinaabe, above.

**Mohave**: The Mohave (Mojave, 'Aha Makhav) peoples are indigenous to the Colorado River in the Mojave Desert.

**Mono**: The Mono or Monache people are indigenous to the central Sierra Nevada region.

**Muscogee**: The Muscogee (Mvskoke, Muscogee Creek, Muscogee Creek Confederacy) are indigenous to the Southeastern Woodlands in the USA in what now is southern Tennessee, Alabama, western Georgia, and parts of northern Florida.

**Nlaka'pamux**: The Nlaka'pamux (Nlakapamuk, Thompson, Thompson River Salish, Thompson Salish, Klackarpun, Haukamaugh, Knife Indians, Couteau Indians) are an Interior Salish language group in southern British Columbia and in the North Cascades region of Washington State.

**Netsilik**: The Netsilik (Netsilingmiut) are an Inuit people indigenous to Kugaaruk and Gjoa Haven of the Kitikmeot Region, Nunavut and in Taloyoak and the north Qikiqtaaluk Region.

**Nimiipuu**: The Nimiipuu (Nez Perce, Nimeepoo, Tsoopniteloo) peoples are indigenous to the Columbia River Plateau.

**Nunamiut:** The Nunamiut are a semi-nomadic people indigenous to the northern and northwestern Alaskan interior, mainly around Anaktuvuk Pass. Their name means "we, the people".

**Numic**: This is an Uto-Aztecan language family which includes Comanche, Timbisha, Shoshoni, Kawaiisu, Colorado River (Chemeheuvi, Southern Paiute, Ute), Mono, and Numu (Northern Paiute or Paviotso).

**Nunatsiarmiut:** The Nunatsiarmiut are Inuit indigenous to Baffin Island.

**Odawa**:

See Anishinaabe, above.

**Ojibwe**:

See Anishinaabe, above.

**Oji-Cree**:

See Anishinaabe, above.

**Omaha**: The Omaha people are indigenous to northeastern Nebraska and Western Iowa today but earlier migrated from locations in the Ohio River Valley.

**Paiute**: The Northern Paiute are a Numic people of the Great Basin region of the United States. The Southern Paiute are indigenous to the Colorado River basin. NOTE: The Paiute keep some traditional sky lore to themselves for the protection and preservation of cultural knowledge. Asterisms can be discussed out of winter season, however, out of respect to the Paiute, DO NOT TELL PAIUTE STAR STORIES OUT OF THE WINTER SEASON. Resources include:

- Gillard, Autumn A. Southern Paiute Astronomy, 16 April 2021, https://www.youtube.com/watch?v=FFlPmZ5UQLE
- Gillard, Autumn A. *Southern Paiute Astronomy*, presentation for Virtual Grand Canyon Star Party, 6 June 2021, https://www.youtube.com/watch?v=w-VirZLpb4Y
- Neilson, Hildig. *Tales of the North Star: An Origin Story and Time-Domain Astrophysics*, Feb 2021. http://hildingneilson.com/tales-of-the-north-star-an-origin-story-and-time-domain-astrophysics/
- Powell, John Wesley. *Anthropology of the Numa,* 1868.


**Pawnee**: The Pawnee are indigenous to the Central Plains of North America.

**Payómkawichum**: The Payómkawichum (Luiseño) are the indigenous people of California.

**Pomo**: The Pomo are indigenous people of California.

**Potawatomi:**

See Anishinaabe, above.

**Quileute**: The Quileute are the indigenous people of western Washington State in the United States.

**Salish**: The Salish are an ethno-linguistic group of peoples in the Pacific Northwest of the U.S. and Canada. There are four main groups:

- Nuxalk (Bella Coola)
- Coast Salish
- Interior Salish, and
- Tsamosan

Resources include:


- Pete, Shandin. *The Salish Canoe Asterism: ƛiyéʔ,* SkyNews, Mar/Apr 2023.


**Saulteaux**:

See Anishinaabe, above.

**San Ildefonso:** These are the people of San Ildefonso Pueblo (Tewa: P'ohwhóge Owingeh [p’òhxʷógè ʔówîŋgè] "where the water cuts through"), indigenous to New Mexico and are part of the Tewa linguistic group.

**Schitsu'umsh:** The Schitsu'umsh (“the discovered people”) also known as Skitswish and historically referred to by Europeans as the Coeur d’Alene) are indigenous to northern Idaho, eastern Washington State, and Western Montana and are part of the Interior Salish peoples. The name Coeur d’Alene comes from the French “heart of an awl” and was recorded by the Lewis and Clark Expedition in 1805.

**Sdoh-doh-hohbsh:** The Sdoh-doh-hohbsh (Snohomish) are a Lushootseed Native American tribe who reside around the Puget Sound area of Washington State.

**Secwépemc**: The Secwépemc (Secwepemc, Shuswap) peoples are a Salishan language group indigenous to the interior of British Columbia, their territory ranging from the eastern Chilcotin Plateau and Cariboo Plateau southeast through Thompson Country to Kamloops and Shuswap Country, spanning the Selkirk Mountains and the Big Bend of the Columbia River.

**Seri**: The Seri or Comcaac people are indigenous to the Mexican state of Sonora.

**Shaawanwaki**: The Shaawanwaki (also known as Ša·wano·ki and Shaawanowi lenaweeki), historically referred to by Europeans as the Shawnee, are an Algonquian-speaking ethnic group indigenous to

North America. In colonial times they were a semi-migratory Native American nation, primarily inhabiting areas of the Ohio Valley.

**Shastan:** The Shastan (Stasta) peoples are indigenous to the Klamath Mountain region of California and Oregon.

**Shíshálh**: The Shíshálh people, (in their language spelled Shishá7lh), historically referred to by Europeans as the Sechelt, are a Coast Salish indigenous people of the Pacific Northwest Coast.

**Shoshone**: The Shoshone or Shoshoni people are indigenous to what is now Wyoming, Idaho, Nevada, and Utah.

**Siksika**: The Blackfoot Confederacy (Niitsitapi or Siksikaitsitapi) is the collective name for the Siksika, also known as the Kainai, who are indigenous to the northern Great Plains of western North America.

**Skidi:** The Skidi (Skiri, Wolf Pawnee, French Loup Pawnee) are a band of the Pawnee people originally indigenous to the Loup River and Platte River area of Nebraska. They are today a part of the Pawnee Nation of Oklahoma.

**Snohomish**: The Snohomish people are a Lushootseed language group indigenous to the Puget Sound area of Washington State.

**St'at'imc**: The St'at'imc (Lillooet, Sṯáṯimc, Stl'atl'imx) are an Interior Salish people located in the southern Coast Mountains and Fraser Canyon region of the interior of British Columbia. The Lillooet Tribal Council is their largest grouping, and includes the Lil'wat First Nation, the In-SHUCK-ch Nation and the N'quatqua First Nation.

**Tagish**: The Tagish or Tagish Khwáan (Tagish: Tà̀gish kot'īnè'; Tlingit: Taagish k̲wáan) are an Athabaskan-speaking ethnolinguistic group indigenous to the area of Tagish Lake and Marsh Lake in the Yukon Territory of Canada.

**Talhtan**: The Talhtan or Nahani are an Athabaskan-speaking ethnolinguistic group indigenous to northern British Columbia.

**Tanana**: The Tanana are Athabaskan-speaking people of the Tanana River in Alaska.

**Tanacross:** The Tanacross (Transitional Tanana) people are an Athabaskan language group indigenous to the interior of Alaska.

**Tiwa**: Tiwa or Tewa Puebloans are indigenous to the Rio Grande in New Mexico. The Northern Tiwa include the Taos and Picuris, and the Southern Tiwa include the Isleta and Sandia.

**Tlingit**: The Tlingit are indigenous people of the Pacific Northwest coast of North America.

**Tonono O'odham:** The Tohono O'odham (tɔhɔnɔˈʔɔʔɔd̪am) peoples are indigenous to the Sonoran Desert, residing primarily in Arizona and the northern Mexican state of Sonora.

**Tse'khene**: The Tse'khene (historically referred to by Europeans as Sekani) are an Athabaskan-speaking ethnolinguistic group of the Northern Interior of British Columbia.

Resources:

- Enos, Susanne Ignacio, Saxton, Dean, Saxton, Lucille. *O'odham Legends and Lore*,

**Tsimshian**: The Tsimshian (Ts'msyan, Tsm'syen) are indigenous to the Pacific Northwest Coast, with communities in Terrace and Prince Rupert in British Columbia and Metlakatla in Alaska.

**Tutchone**: The Northern Tutchone are Athabaskan-speaking peoples indigenous to the central Yukon Territory. The Southern Tutchone are indigenous to the southern Yukon and northern British Columbia.

**Ts'ets'aut:** The Ts'ets'aut (Tsetsaut) were an Athabascan people indigenous to the southern coast of Alaska and northwest British Columbia. Displacement, disease and warfare decimated their numbers and while descendants still live among the Nisga'a, Tahltan, and Kaska peoples, there is no distinct Ts'ets'aut nation today.

**Tsilhqot'in**: The Tsilhqot'in (historically referred to by Europeans as the Chilcotin) are the Athabaskan-speaking indigenous people of southern British Columbia.

**Tsuut'ina**: The Tsuut'ina (Tsu T'ina, Tsuu T'ina, Tsúùtínà) people (whose name means "a great number of people") are indigenous to Alberta, their current reserve being southwest of Calgary. They were formerly known by the exonym Sarcee or Sarsi, a term now considered offensive by these people.

**Wet'suwet'en**: The Wet'suwet'en (Witsuwit'en) people are indigenous to the Bulkley River, Burns Lake, Broman Lake, and Francois Lake in Northwestern Central Interior of British Columbia and are a branch of the Dakelh peoples.

**Wiyot**: The Wiyot (Wiyot: Wíyot, Chetco-Tolowa: Wee-'at xee-she or Wee-yan' Xee-she', Euchre Creek Tututni: Wii-yat-dv-ne - "Mad River People", Yurok: Weyet) are an indigenous people of California living near Humboldt Bay.

**Wsanec**: The Wsanec (Saanich) peoples are indigenous to the north coast of the Gulf and San Juan Islands, southern Vancouver Island, and the southern edge of the Lower Mainland in British Columbia.

**Xwlemi**: The Xwlemi, also known as the Lumni or Lhaq'temish, are a Coast Salish ethnolinguistic group that are the indigenous people of the Washington State in the United States.

**Yakima**: The Yakima peoples are indigenous to the Yakima River area of Washington State in the U.S.

**Yana:** The Yana are indigenous to northern California in the central Sierra Nevada.

**Yavapai**: The Yavapai people are indigenous to Arizona. The have four geographical bands:

- Ðulv G'paaya, or Western Yavapai;
- Yaavpe', or Northwestern Yavapai;
- Gwev G'paaya, or Southeastern Yavapai;
- Wiipukpaa, or Northeastern Yavapai – Verde Valley Yavapai; and
- Maðqwarrpaa ("Desert People"), a band which no longer exists.

**Yokuts:** The Yokuts (exonym Mariposa) are indigenous to central California. NOTE: some of these people reject the name Yokuts as an exonym and prefer to use their tribal names, which are:

- Gashowu,
- Choinumni,
- Chukchansi,
- Lakisamni,
- Tachi (Tache),
- Wukchumni,
- Chaushila, and
- Chowchilla.

**Yupik**: The Yupik, Yupiaq, or Yup'ik peoples are indigenous to western, southwestern, and southcentral Alaska and the Russian far east.

Resources:

- Cannon, Chris M. *Documenting Alaska's Indigenous Astronomy*, Alaska Native Language Archive & Northern Studies, University of Alaska,
- *Math in a Cultural Context, Lessons Learned from Yup'ik Elders*, University of Alaska, 2007.

## **Oceania**:

This section is for the cultures of Oceania including Australasia and the Malay Archipelago.

Resources include:

- Robertson, Margaret, Po Eung, Eric. *Everyday Knowledge, Education, and Sustainable Futures: Transdisciplinary Approaches in the Asia-Pacific Region*, Springer, June 2016.

The cultures I've listed in this handbook include:

**Aeta:** The Aeta (Ayta, Agta, Dumagat) people are indigenous to the island of Luzon in the Philippines.

Antique: The Antique peoples are indigenous to the Antique province of the Philippines.

**Anutan**: These are the peoples of Anuta, a small, high island which is part of the Solomon Islands province of Temotu, one of the smallest inhabited Polynesian islands.

The Anutan asterisms for Stellarium were contributed by Dan Smale: d.smale(at)niwa.co.nz

Resources on Anutan sky lore include:

- *Polynesian Seafaring and Navigation: Ocean Travel in Anutan Culture and Society*, Feinberg, Richard, 1998, Kent State University Press, Kent, Ohio: ISBN 0-87338-352-4.
- *Fish Names of Western Polynesia: Futuna, Niue, Samoa, Tokelau, Tonga, Tuvalu, Uvea, Outliers*, Rensch, K.H., 1994, Archipelago Press, the University of California : ISBN 9780959378771.

**A'ua'u Enua:** A'ua'u Enua (A'ua'u, Mangaia) is the most southerly of the Cook islands and the second largest.

**Baduy:** The Baduy are a Sundanese ethnic group indigenous to the Indonesian province of Banten who are almost completely isolated from the outside world.

Resources include:

- Iskandar, Johan and Iskandar, Budiawati S. *Ethnoastronomy-The Baduy Agricultural Calendar and Prediction of Environmental Perturbations*, J. Iskandar, Department of Biology, Faculty of Mathematics and Natural Sciences and Postgraduate of Environmental Science (PSMIL & DIL) and Institute of Ecology (PPSDAL), Universitas Padjadjaran. Jl. Raya Bandung-Sumedang Km 21, Jatinangor, Sumedang 45363, West Java, Indonesia. Tel./Fax.: +62-22-77912. email: johan.iskandar@unpad.ac.id and B. S. Iskandar, Department of Anthropology, Faculty of Social and Political Science, Universitas Padjadjaran. Jl. Raya Bandung-Sumedang Km 21, Jatinangor, Sumedang 45363, West Java, Indonesia. email: budiawati.supangkat@unpad.ac.id
- Zidny, Robby. Indigenous Knowledge as a Socio-Cultural Context of Science to Promote Transformative Education for Sustainable Development: A Case Study on the Baduy Community (Indonesia), October 2018.

**Banjar**: The Banjar (Urang Banjar; Jawi: اورڠ بنجر), are an ethnic group native to South Kalimantan province, Indonesia, and are called the Bumiputera in the Malay peninsula and the Malaysian states of Perak and Sabah.

**Batak:** The Batak are an Austronesian ethnic group found in North Sumatra and Indonesia and includes the:

- Karo,
- Pakpak
- Simalungun
- Toba (note: there is an unrelated ethnic group called Toba in Argentina)
- Angola
- Mandailing

There is also a Batak people in Palawan in the Philippines, part of the Negrito ethnic group.

**Bhil:** The Bhil (Bheel, Adivasi) are indigenous to western India.

**Bikolano:** The Bikolano (Bikolanos, Mga Bikolon) are the fourth largest Filipino ethnolinguistic group and are indigenous to the Bicol Peninsula.

**Bugis**: The Bugis are one of three groups of the ethnolinguistic South Sulawesi (the others being Makassar and Toraja) in the southwestern province of Sulawesi, the third largest island of Indonesia.

**Carolinian:** These Micronesian peoples are the peoples of the Caroline Islands.

**Chuukese**: The Chuukese (Trukese) people are indigenous to the island of Chuuk and its surrounding islands and atolls in the Federated States of Micronesia.

**Filipino**: These are people native to the Philippines and involve more than 185 Austronesian ethnolinguistic groups.

Resources include:

- Santos, Krishna, Santos, Gian Paulo Abia, Bautista, Rose Ann Banag. *Development of Filipino Astronomical Terms Compendium*, April 2019.

Online resources include:

- Let's Talk Astronomy: Philippine Ethnoastronomy: https://www.youtube.com/watch?v=V9myK8fxWcg
- Clark, Jordan. Bathala's Daughters. https://www.aswangproject.com/bathalas-daughters-demigods-mayari-hanan-tala/
- Clark, Jordan. *Aswang Project: Seven Sky Maidens*: https://www.aswangproject.com/pleiades-seven-skymaidens-philippine-folklore/

**Hawaiian**: Much of the knowledge regarding Hawaiian star lore and navigation were lost until the Hawaiian Renaissance in the early 1970s. The Polynesian Voyaging Society (PVS), founded in 1973, created a traditional voyaging canoe called Hokele'a in 1975. Nainoa Thompson, President of PVS brought Mau Piailug, a Micronesian master navigator and wayfinder from Satawal, Micronesia to Hawaii between 2013 – 2017 to teach them navigation with the hope of reviving this lost knowledge of wayfinding. Thanks to Mau, they succeeded, and the star lines I've listed here are from that cooperative effort.

The Hawaiian Stellarium asterisms were created in 2017 by teachers Darren Kamalu and Christopher Blake, Students Jonah Apo, Nicholas Koanui, Brenden Aila and the Celestial Navigation class at Kamehameha Schools Kapalama, Honolulu, Hawai'i. Artwork by Kealoha Kaneakua.

Resources on Hawaiian sky lore include:

Publications:


- Bryan, E.H. & Crowe, Richard. *Stars Over Hawaii*, 2nd ed. 2002, Petroglyph Press.
- Lewis, D. *Voyaging Stars: Aspects of Polynesian and Micronesian Astronomy*, Philosophical Transactions of the Royal Society of London, Series A, Mathematical and Physical Sciences, Vol. 276, No. 1257, The Place of Astronomy in the Ancient World (May 2, 1974), pp.133-148.
- Finney, Ben. *Sailing in the Wake of the Ancestors*: Reviving Polynesian Voyaging. 2004, Bishop Museum Press.
- Finney, Ben. *Hokule'a: The Way to Tahiti*. 1976, Dodd Mead.
- Kyselka, Will & Ray Lanterman. *North Star to Southern Cross*. 1976, University of Hawaiʻi Press.
- Lewis, D. *We, the Navigators. The ancient Art of Landfinding in the Pacific*, 1994, University of Hawaii Press
- Makemson, Maud. *The Morning Star Rises: An Account of Polynesian Astronomy*. 1941, Yale University Press.
- Ruggles, Clive L. N. *Ancient Hawaiian Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2247.
- Ruggles, Clive L. N. *Archaeoastronomy in Polynesia*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2231.


Online:

- Hawaiian Voyaging Society classroom activities in many areas: http://archive.hokulea.com/hoonaauao/resources_curriculum_activities.html
- Hawaiian Wayfinding, PBS: https://www.pbs.org/wayfinders/polynesian8.html
- Johnson, Rubellite "Hawaiian Astronomy" (chapter from the History of Science… in Non-western Cultures): http://www.hawaiifreepress.com/Portals/0/Article%20Attachments/Astronomy%20in%20Hawai'i%20RKJ.pdf
- Kimura, K., et al. Hawaiian Culture Based Celestial Naming: https://113qx216in8z1kdeyi404hgf-wpengine.netdna-ssl.com/wp-content/uploads/2019/09/135_kimura.pdf
- Never Lost: Web Pages on Polynesian Navigation from the Exploratorium: http://annex.exploratorium.edu/neverlost/#/home
- Polynesian Navigation and Astronomy Curriculum (developed for the StarLab Portable Planetarium, but with useful background information for everyone): https://starlab.com/wp-content/uploads/2017/04/D.-26.-Polynesian-Astronomy-v616.pdf
- Polynesian Voyaging Society (PVS): http://www.hokulea.com/moananuiakea/
- Spotlight on Hawaii (A special issue of the ASP's Mercury magazine on the controversy about building the 30-meter telescope on Mauna Kea in Hawaii): https://astrosociety.org/news-publications/mercury-online/topics/special-coverage-spotlight-on-hawaii.html
- Steiger, Walter "Origins of Astronomy in Hawaii": https://www.ifa.hawaii.edu/users/steiger/introduction.html
- Wayfinders: A Pacific Odyssey: https://www.pbs.org/wayfinders/index.html
- Wayfinding and Navigation, University of Hawaii at Manoa: https://manoa.hawaii.edu/exploringourfluidearth/physical/navigation-and-transportation/wayfinding-and-navigation

Videos:

- *Polynesian Wayfinders* [10 min]: https://www.youtube.com/watch?v=_1ibG0Fj7oE
- *The Light at the Edge of the World: Polynesian Wayfarers* (a National Geographic video): https://www.youtube.com/watch?v=DWp5MiiVR1k

**Ibaloi**: The Ibaloi peoples are indigenous to Benguet Province of the northern Philippines.

**Ifugao**: The Ifugao people are indigenous to Ifugao province in the Philippines. The Mayawyaw Ifugao are a subgroup.

**Igorot**: The Igorot people are indigenous to the mountains of northern Luzon, Philippines.

**Ilokano**: The Ilokano people are the third largest Filipino ethnolinguistic group, mostly residing in the Ilocos region in the northwestern seaboard of Luzon, Philippines.

**Isnag:** The Isnag (Isneg, Apayao) people are indigenous to Apayao Province in the Philippines' Cordillera Administrative Region.

**Ivatan**: The Ivatan (Itbayaten) people are an Austronesian ethnolinguistic group indigenous to the Batanes and Babuyan islands of the northernmost Philippines.

**Javanese**: The Javanese people (Javanese: Ngoko: ꦮꦺꦴꦁꦗꦮ (Wóng Jåwå), Krama: ꦠꦶꦪꦁꦗꦮꦶ (Tiyang Jawi); Indonesian: Suku Jawa or Orang Jawa) are a Southeast Asian ethnic group native to the Indonesian island of Java.

Resources for Javanese sky lore include:

- *Cultural Production of Skylore in Indonesia*, Gene Ammareli, January 2015, Ohio University. https://www.researchgate.net/figure/Weluku-the-Plow-a-Javanese-asterism-in-the-constellation-Orion-Drawing-after-Raffles_fig3_278681246

**Kalinga:** The Kalinga people are indigenous to the Cordillera Mountain Range of the Northern Phillippines, mainly found in Kalinga Province.

**Kankanaey:** The Kankanaey (Kankana-ey) are indigenous to the Northern Philippines.

**Kanlurang**: The Kanlurang peoples are indigenous to the Samar province of the Philippines.

**Kapampangan**: The Kapampangan peoples are indigenous to the provinces of Pampanga, Bataan, and Tarlac, as well as Bulacan, Nueva Ecija, and Zambales in the Philippines.

**Kedahan**: The Kedahan (Orang Utara) are Malay people indigenous to Kedah, Penang and Perlis in Northern Malaysia and parts of Perak and in southern parts of Thailand and Myanmar.

**Kiribati**: These are people indigenous to the Republic of Kiribati, which consists of 32 atolls and one remote raised coral island (Banaba). Kiribati is the Gilbertese translation of Gilberts, a reference to the English name of the nation's main archipelago, the Gilbert Islands.

Resources include:

- Trussel, Stephen, Groves, Gordon W. A Combined Kiribati-English Dictionary: Based on the works of Hiram Bingham D.D. and Father Ernest Sabatier, MSC, University of Hawaii, 1978: https://www.trussel.com/kir/dic/dic_k.htm#TOP

**Lumad**: The Lumad are a group of Austronesian indigenous people in the southern Philippines, including these ethnic groups:

- Bagobo: Formerly nomadic, farming now through the Davao Gulf to Mount Apo.

- B'laan, Blaan or Bilaan ("opponent people") are indigenous to Southern Mindanao in the Philippines.
- Bukidnon ("mountain dweller") are indigenous to the province of Bukidnon in the Northern Mindanao region of the Philippines. The four main tribes are Maranaos, Maguindanao, Manobo, and Talaandig tribes that inhabit the easter, southern, and north central potions of the original province of Cotabato. The Magahats are also part of this group.
- Higaonon: inhabiting the provinces of Bukidnon, Agusan del Sur, Misamis Oriental, Camiguin, Rogongon, and Lanao del Norte.
- K'lagan or Kalagan: a subgroup of th Mandaya-Mansaka people speaking Kalagan and native to Davao del Sur, Compostela Valley, Davao del Norte (including Samal Island), Davao Oriental, and North Cotabato.
- Mamanwa: A Negrito tribe often grouped with the Lumad, they inhabit Leyte, Agusan del Norte, and Surigao provinces in Mindanao.
- Mandaya: Translates as "first people upstream", they occupy areas from Sarangani island into the Mindanao mainland.
- Mansaka: Also known as Mandaya. Translates as "first people to ascend mountains/upstream", they occupy Davao del Norte and Davao de Oro and some parts of Davao Oriental.
- Matisgsalug: Bukidnon groups I the Tigwa-Salug Valley.
- Sangil: Originally from the Sangihe and Talaud Islands (now part of Indonesia) and parts of Davao Occidental (especially the Sarangani Islands), Davao del Norte, Davao del Sur, Sultan Kudarat, Soth Cotabato, and North Cotabato.
- Subanon: The Subanon (Subanen) are settlers of the Zamboanga Peninsula.
- Tagabawa: Indigenous to Mindanao in the Mount Apo region.
- Talaandig: Indigenous to the foothills of Mount Kitanglad.
- Tasaday: Peoples of the mountainous rainforests of Mindanao.
- Teduray: The Teduray are a Filipino ethnic group that speaks the Tiruray language and are indigenous to the province of Bukidnon in the Philippines.
- Tboli: Indigenous to South Mindanao.
- Tigwahonon: Subgroup of Manobo in the Tigwa River basin.
- Umayamnon: Subgroup of Manobo in the Umayam River watershed and the headwaters of the Pulangi River.

**Maguindanao:** The Maguindanao (Maguindanaw) people are an Austroesian ethnic group. They are indigenous to Maguindanao del Norte, Maguindanao del Sur, the Zamboanga Peninsula, the Davao Region, and Soccsksargen.

**Malay**: Malays (Orang Melayu, Jaw i: أورڠ ملايو) are an Austronesian ethnic group native to the eastern Sumatra, Malay Peninsula and coastal Borneo, as well as the smaller islands that lie between these locations, including Malaysia, Indonesia (Sumatra, Bangka Belitung Islands, Borneo (Kalimantan) and Riau Islands, the southern part of Thailand (Pattani, Satun, Songkhla, Yala and Narathiwat), Singapore and Brunei Darussalam.

Resources on their sky lore include:

- Jaafar, Nurl Fatini and Khairuddin, Ahmad Hakimi. *Folk Astronomy of the Northern West Coast of Peninsula Malaysia*, Academy of Malay Studies, Universiti Malaya, Feb 2019.
- *A Shark in the Stars: Astronomy and Culture in the Torres Straight*: https://theconversation.com/a-shark-in-the-stars-astronomy-and-culture-in-the-torres-strait-15850

- Philippine Constellations blog: https://astralrtu.wixsite.com/astral/single-post/2018/04/10/philippine-constellations
- Pinoy Ethnoastronomy: How the Stars Guided our Ancestors: https://www.flipscience.ph/space/pinoy-ethnoastronomy/#:~:text=Even%20before%20the%20Spaniards%20came,are%20composed%20of%20bright%20stars. Cesar Ilao III Dec 18, 2020
- Stars Through the Eyes of Ancient Filipinos, Daniel de Guzman, January 2017: https://www.aswangproject.com/stars-eyes-ancient-filipinos/

**Māori**: The Māori are indigenous Aotearoa (New Zealand) and the Cook Islands. Their sky lore shares a lot of characteristics with other sky lore of the peoples of the Pacific.

The Stellarium asterisms were contributed by Stellarium user Dan Smale, d.smale(at)niwa.co.nz

Resources on Māori sky lore include:

Publications:

- Best, E. *The Astronomical Knowledge of the Māori*, 1955, Dominion Museum Monograph no.3 Wellington: Government Printer
- Best, E. *The Māori Division of Time*, 1959, Dominion Museum Monograph no4. Wellington: Government Printer
- Evans, J. *The Discovery of Aotearoa*, 1998, Reed
- Harris, P., Matamua, R., Smith, T., Kerr, H., & Waaka, T.*A Review of Māori Astronomy in Aotearoa-New Zealand*, 2013, Journal of Astronomical History and Heritage, 16(3), 325-336.
- Kingsley-Smith, C. *Astronomers in Puipuis: Māori Star Lore,* 1967, Southern Stars 22,5-10
- Leather, K., and Hall, Richard. *Tatai Arorangi: Māori Astronomy, Work of the Gods*, 2004, Viking sevenseas nz ltd, Paraparaumu, NZ, ISBN:085467105 6.
- Orchiston, Wayne, Orchiston, Darunee Lingling, Fuller, Bob. *A Study in Ethnoastronomy: Why the Māori Did Not See a Moa in the Sky*, RASNZ Annual Conference, Whangarei, NZ, June 2022.
- Orchiston, W. *Australian Aboriginal, Polynesian and Māori Astronomy*, 1996, Chapter in: 'Astronomy before the telescope' 318-328. Editor Chris Walker. BCA
- Orchiston, Wayne, Orchiston, Darunee Lingling. *It's Now or Never: Changing Cultures and the Investigation of Indigenous Astronomical Systems*, 2nd International Conference on Global Issues and Environment, Sep 2021.
- Orchiston, W. *Studying Māori Ethnoastronomy,* NARIT/UNESCO Ethnoastronomy Workshop, May 2017

Online:

- Maori Lunar Calendar: http://www.pixieplots.co.nz/Maori-Lunar-Calendar
- *Matariki: The Pleiades in Maori Culture*: https://www.sciencelearn.org.nz/resources/2322
- Society for Maori Astronomy Research and Traditions: https://www.maoriastronomy.co.nz/
- The Astronomical Knowledge of the Māori, Genuine and Empirical Star-Names http://nzetc.victoria.ac.nz/tm/scholarly/tei-BesAstro.html
- *The Canoe is the People: Indigenous Navigation in the Pacific*, http://www.canoeisthepeople.org/index.php
- *The Natural World of the Māori*, Orbell, M., 1996, David Bateman Ltd
- The Phoenix Astronomical Society: a very good website on Māori sky culture (Wairarapa, New Zealand): http://www.astronomynz.org/

**Maranao:** The Maranao (Maranaw, Meranao, Maranaw) are indigenous to the island of Mindanao.

**Meratus Dayak**: The Meratus Dayak people inhabit the Meratus Mountains of South Kalimantan, Indonesia.

**Meriam Mir**: A Papuan language group in the eastern islands of the Torres Strait.

**Moriori**: The Moriori are settlers of the Chatham Islands.

**Micronesian:** The Micronesian peoples are various closely related ethnic groups indigenous to Micronesia, a region of Oceania including the Carolinians (Northern Mariana Islands), Charmorros (Guam and Northern Mariana Islands), Chuukese, Mortlockese, Namonuito, Paafang, Puluwat and Pollapese (Chuuk), I-Kiribati (Kiribati), Kosraeans (Kosrae), Marshallese (Marshall Islands), Nauruans (Nauru), Palauans, Sonsorolese (Palau), Pohnpeians, Pingelapese, Ngatikese, Mwokilese (Pohnpei) and Yapese, Ulithian, Woleian, and Satwalese (Yap).

Resources include:

- Edwards, Alexandra. Micronesian Archaeoastronomy Expedition: Kosrae and Pohnpei, The Federated States of Micronesia, Explorers Club Flag Expedition Report (Flag # 71), 2017.
- Holton, Gary, Hachibmai, Calistus, Haleyalur, Ali, Lipka, Jerry, and Rubinstein, Donald. East is Not a 'Big Bird': *The Etymology of the Star Altair in the Carolinian Sidereal Compass*, Oceanic Linguistics, Vol. 54, No. 2, University of Hawaii Press, December 2015, pp. 579 – 588.

**Nias:** Nias (Pulau Nias) is an island of the western coast of Sumatra, and also the name of the archipelago of which this island is the center.

**Niue**: The people of Niue (Niuē) are the inhabitants of the island of Niue.

**Orang Asli**: Orang Asli ("first people") are the oldest inhabitants of the Malay Peninsula.

- **Mah Meri:** The Mah Meri people are an Orang Asli group indigenous to the western part of the Malaysian peninsula.
- **Sasak**: The Sakak are an Orang Asli group on the island of Lombok in Indonesia.
- **Semelai**: The Semelai are found in the Negeri Sembilan and Pahang states of Malaysia.
- **Temuan:** The Temuan people are indigenous to western parts of Peninsular Malaysia, in the states of Selangor, Pahang, Johor, Negeri Sembilan, and Malacca.

Resources include:

- Jaafar, Nurl Fatini and Khairuddin, Ahmad Hakimi. *Astronomical Knowledge and Practices of the Orang Asli of Malaysia*, Academy of Malay Studies, Universiti Malaya, 2014.

**Orang Seletar:** The Orang Seletar are indigenous to the coasts and islands of the Riau-Lingga Archipelago and the east coast of Sumatra.

**Pitkern:** These are the people of the Pitcairn Islands.

**Poluwatese**: The Poluwatese (Puluwat, Polowat) are indigenous to the island of Poluwat in the Federated States of Micronesia.

**Rapanui:** The Rapanui (Rapa Nui) are the Polynesian peoples indigenous to Easter Island. Resources include:

- Edwards, Edmundo, and Edwards, Alexandra. *Archaeoastronomy and Ethnoastronomy*, Flag #83 Expedition Report, February – May 2010.
- Edwards, Edmundo. *Archaeoastronomy of Easter Island,* in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 2261.

- Edwards, Edmundo, and Edwards, Alexandra. *Flag #83 Expedition Report*, Feb – Jun 2021, Revised 2016.
- Edwards, Edmundo, and Edwards, Alexandra, Barthelemy, Jean-Christian. *Consolidation of the Rapanui Astronomy Concept Inventory and Re-Appraisal of Applied Astronomic Observation at Papa Ui Hetu'u, Rapa Nui*, in Mediterranean Archaeology and Archaeometry, June 2018.


**Rarotonga:** Rarotonga is the largest of the Cook Islands and was first populated by peoples from Tahiti and Samoa, with the earliest evidence of occupation dating to around 1000 C.E.

**Raivavae:** The Raivavae are indigenous to an island of that name in the Austral Islands in French Polynesia.

**Rotuman**: The Rotuman (Rotuạm; Ro) are an ethnic group indigenous to Rotuma, an island group forming part of Fiji.

**Sama:** The Sama (Samah, A'a Sama), given the exonym Bajau (Badjao, Bajaw, Badjau, Badjaw, Bajo, Bayao, Sama Mapun (Jama Mapun), Sama Tawi-tawi, or sea gypsies) are indigenous to the islands of Tawi-Tawi in the Philippines. They are a seagoing people who live on small wooden vessels such as the perahu, djenging, lepa, or vinta. Resources include:


- Ambrosio, Dante. *'Mamahi: Stars of Tawi-Tawi,* Philippine Daily Inquirer, 26 Jan 2008.
- Masong, Rizchel M. *Star Catalogues and Star Maps in the Context of Philippine Ethnoastronomy,* De La Salle University, Manila, 2017.


**Samoan:** The Samoan (tagata Sāmoa) people are a Polynesian people indigenous to the islands of the Samoan Archipelago. Samoan skylore on Stellarium was contributed by Jake Fitisemanu (jjfitisemanu @ gmail.com) with consultation of Samoan cultural custodians and published historical sources. Programming support from Dan Smale. Translation support by Samoan researcher Lorenzo M. Jantoc (TAUTUA) lorenzojantoc@gmail.com

Resources include:


- Brown, George (1910). Melanesians and Polynesians: Their Life Histories Described and Compared. MacMillan and Co.
- Collocott, E.E.V. (1922). Tongan Astronomy and Calendar. Occasional Papers of the Bernice Pauahi Bishop Museum, 8(4).
- Efi, Tui Ātua Tupua Tamasese (2009). Tupualegase: The Eternal Riddle. in Su'esu'e Manogi: In Search of Fragrance. National University of Samoa.
- Efi, Tui Ātua Tupua Tamasese, personal communications
- Johnson, Rubelite and Mahealona, John (1975). Nā Inoa Hōkū. Topgallant Publishing. Kirch, Patrick and Green, Roger (2001). Hawaiki, Ancestral Polynesia. Cambridge University Press.
- Kramer, Augustin (1994). The Samoa Islands, Volume 1. University of Hawai'i Press.
- Kramer, Augustin (1995). The Samoa Islands, Volume 2. Polynesian Press.
- Lefale, Penehuro (2010). Ua Afa le Aso. Climate Change, 100:317-335.
- Leulua'iali'i, Lepanona, personal communications
- Lewis, David (1994). We the Navigators. University of Hawai'i Press.
- Makemson, Maud (1941). The Morning Star Rises. Yale University Press.
- Meleiseā, Leasiolagi Dr. Mālama, personal communications
- Noyes, Martha (2011). Polynesian Star Catalog, Revised. Self-published.

- Pratt, George (1893). A Grammar and Dictionary of the Samoan Language, 3rd Edition. London Missionary Society.
- Refiti, Leali‘ifano Dr. Albert, personal communications
- Seiuliali‘i, Seiuliali’i Pasikale, personal communications
- Simanu, Aumua (2002). O Si Manu a Ali‘i. University of Hawai‘i Press.
- Smith, S. Percy (1892). Futuna, or Horne Island and Its People. In The Journal of the Polynesian Society, 1(1):33-52.
- Stair, John B. (1898). The Names and Movements of the Heavenly Bodies, as Looked at from a Samoan Point of View. The Journal of the Polynesian Society, 7(1):48-49.
- Stair, John B. (1897). Old Samoa or Flotsam and Jetsam from the Pacific Ocean. Religious Tract Society.
- Turner, George (1884). Samoa a Hundred Years Ago and Long Before. MacMillan and Co.
- Tuvale, Te‘o (1918). An Account of Samoan History up to 1918. M.L. MSS. 39 Item C. Manuscript filmed by Public Library of New South Wales, July 1968.


**Satawalese:** The Satawalese people are indigenous to the island of Satawal in the Federated States of Micronesia.

**Semang**: The Semang people are indigenous to mountainous and isolated forest regions of Perak, Pahang, Kelantan, and Kedah in Malaysia.

**Suku Bali**: The Suku Bali (Balinese) are a Southeast Asian ethnic group native to the Indonesian island of Bali. Resources on Suku Bali sky lore include:

- Stars over Bali: https://indonesiaexpat.id/featured/stars-over-bali/

**Sundanese:** The Sundanese (Sunda) people are indigenous to the western region of Java island in Indonesia.

**Tagalog**: The Tagalog peoples make up about a quarter of the population of the Philippines. Tagalog is an Austronesian language.

**Tagbanwa**: The Tagbanwa people are indigenous to north and central Palawan in the Philippines.

**Tahitian**: The Tahitians are a Polynesian ethnic group indigenous to Tahiti and thirteen other Society Islands. Resources include:


- DROLLET, Alexandre, 1989 [1922]. "Rectifications à apporter à certains noms mal orthographiés en langue tahitienne", in BSEO Papeete, N°248, p.100-101.
- Edwards, Alexandra. *The Orientation of Sacred Sites on Raivavae, the Austral Islands, French Polynesia (with a Brief Study of marae on Huahine and Raiatea)- Explorer’s Club #83 Expedition Report*, in Technical Report, December 2015.
- ELLIS, William, 1972, A la recherche de la Polynésie d’autrefois, Paris, Publication de la Société des Océanistes N°25, 2 vol., 942 p.
- FORSTER, Johann, Reinhold, 1982. The Resolution Journal of Johann Reinholf Forster 1772-1775, 4 volumes, Edited by Michael E. Hoare, The Hakluyt Society, London. - 1996, [1778]. Observations made during a Voyage Round the World, Honolulu, UH, 446 p.
- GRAINDORGE, Maurice, 2015. Le Ciel de Tahiti et des Mers du Sud, Papeete, Haere Po.

- HENRY, Teuira, 1928. Ancient Tahiti, based on material recorded by J. M. Orsmond, bul. n°48 Honolulu, Bishop Museum. - 1968 (1951). Tahiti aux temps anciens, Paris, SO, n°1, Musée de l'Homme, 722 p., [Traduit par Bertrand Jaunez].
- LAGUESSE, Janine, 1945, "A propos des connaissances astronomiques des anciens Tahitiens", Papeete, in BSEO, N°75, pp. 141-154.
- PROKOP, Libor. Nomenclature alphanumérique des étoiles du ciel tahitien.
- SAURA Bruno, Huahine aux temps anciens, Cahiers du patrimoine n°8, 2005
- TERIIEROOITERAI, Claude, 2013. Mythes, astronomie, découpage du temps et navigation traditionnelle : l'héritage océanien contenu dans les mots de la langue tahitienne, thèse de doctorat en langues et cultures océaniennes.


**Tami:** This is an Austronesian language group of the Tami Islands and some villages at the tip of the Huon Peninsula in Papua New Guinea.

**Tawi-Tawi**: The Tawi-Tawi are a Sama people on the island of Palawan in the Philippines.

**Thai**: Resources include:


- Nitiyanant, Pisit. Drawing of Traditional Asterisms in Thailand, Astronomers Without Borders, 2015, http://archive.astronomerswithoutborders.org/member-reports/285-gam2015/gam-blog/2670-drawing-of-traditional-asterisms-in-thailand.html


**Titan**: The people of this Austronesian language group are indigenous to Manus in the Admiralty Islands, Papua New Guinea, and Cotabato in the Philippines.

**Tokelauan**: The Tokelauan people are indigenous to Tokelau, a Polynesian archipelago.

**Tongan**: The Ha'amonga 'o Maui structure is the navigational star lore of the Tongans. This Tongan system is centered on the IAU constellation Orion: The three stars of the belt of Orion were part of the wild duck toloa (see below). From this central point star lines radiated out to cardinal points that indicated the location of sunrise at the solstices, and to asterisms and stars that indicated directions.

Some stars have multiple names and may belong to multiple star paths, depending on the island it is associated to. Two things are noticeably absent: They have no name for Polaris, which is unusual because at certain times of the year it would have been visible. The other thing is that, unlike many other sky cultures, they don't recognize any part of the IAU constellation Scorpius.

The Anutan asterisms for Stellarium were contributed by Dan Smale: d.smale [at] niwa.co.nz

Resources on Tongan sky lore include:


- *Stars over Tonga*, Velt Kik, Ko E Ngaahi fetu'u 'o, 1990, 'Atenisi University, Nuku'alofa , Tonga Government printing department.
- *Tongan Astronomy*, T.H Fale, 1990, Polynesian Eyes foundation, Nuku'alofa, Tonga Choice printing.
- *Tongan Astronomy and Calendar*, E. E. V. Collocott, , 1992, Occasional Papers of the Bernice Pauahi Bishop Museum of Polynesian ethnology and Natural History, Vol.8, No. 4 Honolulu, Hawaii, Bishop Museum Press 1922, p. 157-173.
- *Polynesian Astronomer*, Tevita H. Fale: http://thfale.com/haamonga-origin-constellation/


**Tuvaluan:** The Tuvaluan people are inhabitants of the archipelago of Tuvalu.

**Vanuatu**: The Republic of Vanuatu is an island country in the south Pacific inhabited by Melanesian people. The asterisms I've listed are from the Netwar sky culture for Stellarium stems from research which is run among the people of Vanuatu by Dominik M. Ramík (Web: dominicweb.eu, e-mail: dominik.ramik@seznam.cz), who created the Netwar asterisms on Stellarium, and which includes the following cultures:

- Melsisi
- Baki
- Sesivi (Daakaka)
- Erromanga (Sie)
- Larevat (Malakula)
- Olal (North Ambryn)
- Nahwal (Tanna)
- Lolopuépué, Ambae
- Netwar (Lenakel)
- North Tanna, and
- Wala-Rano (Malakula)

Ramik interviewed elders from local communities on Tanna, who contributed with their ancestral knowledge to the Vanuatu Sky project: Jimmy Napip from Ikumhala, Lomai Tain from Ielkes, Sylvano Kapalu from Ipai, Iawilu Naumusapen from Lowkweria, Kasékasé from Imapul, Nausien from Lamlu, Pierrot Nako Yaru from Lowanatom, Joe Natuman from Lowkweria.

References for Vanuatu sky lore include:

- Project Vanuatu Sky including Netwar data alongside other languages of Vanuatu. This is an excellent site: http://dominicweb.eu/en/vanuatu-sky/

**Visayan**: The Visayan (Mga Bisaya) are a Philippine ethnolinguistic group native to the whole Visayas, the southernmost islands of Luzon and parts of Mindanao.

**Woleaian**: The Woleaian people are indigenous to the island of Woleai and surrounding islands in the state of Yap of the Federated States of Micronesia.

## South America and Mesoamerica:

Some useful resources for South American sky lore include:

Publications:

- Berrera Atuesta, Carlos Eduardo. *Harmonic Cycles and Symmetric Time Structures in Mesoamerican Architecture,* in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 140
- Carlson, John B. *Transformations of the Mesoamerican Venus Turtle Carapace War Shield: A Study in Ethnoastronomy*, in Von del Chamberlain, John B. Carlson, M. Jane Young, Songs from the Sky (eds.), 2005
- Lebeuf, Arnold. *A Possible Native Site of Alignment in Baja California, Mexico*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 381.
- Trejo, Jesús Galindo. *The Calendrical Period of 13 Days as a Basis to Explain the Solar Orientation of Architectural Structures in Mesoamerica*, in Draxler, Sonja and Lippitsh, Max L.

[ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 131.

- Urton, Gary. *At the Crossroads of the Earth and the Sky: An Andean Cosmology*, University of Texas Press, 1981
- Urton, Gary. Cosmologies of the Milky Way: South American Views on the Unity of Earth and Sky, in Stellar Connections: Explorations in Cultural Astronomy, Smithsonian NMAI Symposium, 20 Oct 2012: https://www.youtube.com/watch?v=CGjuvxPhGn8
- Urton, Gary. *Ethnoastronomy*, Encyclopedia of Religion, ETHNOASTRONOMY, (2016) Vol.5, p.177

Online:

- Calendar in the Sky Lesson Plans: http://multiverse.ssl.berkeley.edu/Calendar-in-the-Sky/Lesson-Plans

The cultures that I've listed in this handbook include:

**Abipones:** The Abipones are indigenous to Argentina's Gran Chaco region and spoke one of the Guaicuruan languages. They ceased to exist as an independent ethnic group in the early 19th century.

**Amahuaca:** The Amahuaca or Amhuaca are indigenous to the southeastern Amazon Basin in Peru and Brazil.

**Andean**: The Northern Andean asterisms listed here are from the peoples of the Lundauco Valley in Imbabura, Ecuador. Resources on Andean sky lore include:

The Stellarium asterisms were developed from Ancestral Knowledge protected and compiled by the Clan Quinatoa, guardians of the millenary knowledge of the Lundauco Valley in Imbabura – Ecuador. The astral information is based on the study of Andrés Alejandro Ayala Quinatoa in "Millenary Astronomy, what my teachers and ancestors taught me"; Servio Jr. Paladines collaborates for the computer integration. The present illustrations are inspired by the pre-Hispanic designs of the Pasto nation investigated by Estelina Quinatoa for the book "Ancestral Representations and Colors of the Cosmos" (Ministry of Culture and Heritage of Ecuador).
Publications:

- Bauer, Brian & David Dearborn. *Astronomy and Empire in the Ancient Andes*. 1995, U. of Texas Press. Examines the role of astronomy among the Incas.
- Benfer Robert A. *A Condor Shaped Stone Pillar that Marked the Equinox 4,000 Years Ago at the Adean Site of Buena Vista*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 84.
- Ciancia, Guiseppe. *The celestial Slinger: Historic and Ethnographic Convergences in the Andean Night Sky*, L'Uomo, No. 1, pp. 7 30, 2018.
- Ghezzi, Iván and Ruggles, Clive L. N. *Chankillo*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 807.
- Malville, J. McKim, and Ziegler, Gary. *Llactapata and the Puzzle of the Two Coricanchas*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 81.

- Malville, J. McKim. *Pre-Inca Astronomy in Peru*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 795.
- Moyano, Ricardo. *Landscape, Mountain Worship and Astronomy in Socaire*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 921.
- Silvia, Motta, Gaspani, Adriano, Corrado, Gustavo, Benitez, Sixto, Matos, Jose Pino. *The "Intihuatana" of Saywite (Perú): An Archeoastronomical Investigation on the Role of Time Marker of the Gnomon*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 78.
- Urton, Gary. Andean Cosmos (2nd edition). 1 January 2022.
- Ziólkowski, Mariusz. *Observations of Comets and Eclipses in the Andes*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 913.


**Apinajé:** The Apinajé (Apinayé, Afotigé, Apinagé, Otogé, Oupinagee, Pinagé, Pinaré, Uhitische, Utinsche, Western Timbira) are indigenous to the state of Toncantins in Eastern Central Brazil.

**Aruanãs**:

The Aruanãs peoples are indigenous to the upper Araguaia River in Brazil.

**Asháninka**: The Asháninka or Asháninca are Indigenous to the rainforests of Peru and Brazil and a Campa linguistic group.

**Atacameño**: The Atacameño (Atacameña, Atacama) people are indigenous to the Atacama Desert and altiplano region of northern Chile and Argentina and southern Bolivia, mainly the Antofagasta Region.

Resources include:


- Moyano, Ricardo. *Sub-tropical Astronomy in the Southern Andes: The Ceque System in Socaire, Atacama, Northern Chile*, in Ruggles, Clive (ed), Oxford IX, International Symposium on Archaeoastronomy Proceedings, IAU Symposium No. 278, 2011.


**Ava Guarani**: The Ava Guarani (Chiraguano) people are indigenous to the foothills of southeastern Bolivia.

**Aymara:** The Aymara (Aimara) people are indigenous to the Andes and Altiplano regions of South America.

**Aztec**: The ancient Aztecs called themselves the Mexica. The sky lore of the ancient Aztecs was essential to them for their calendars and their sacred cycles, but much of this has been lost as a consequence of the Spanish conquest of the 16th century. Many of the pre-Hispanic codices were destroyed, and those that survived were on deer skin, amate paper, or cotton fabric. Thanks to the work of some Spanish priests and indigenous people, some codices were preserved and sent to Europe, but there many of them were destroyed due to careless storage or simple disregard for their value. So the remaining knowledge of their sky culture is unfortunately quite small, but what we know I have listed here.

The Stellarium team that created their Aztec asterisms included Javier Gómez Sandoval, Martha Patricia Rivera, Emilio Ramón Bolaños Guerra, Hector Vega, Rafael Rojas Segoviano, Juan Caballero, and Enrique Gómez Candelario (aldeaglobal@gmail.com).

Here are some useful resources:

Publications:

- Galindo Trejo, Jesús *Arqueoastronomía en la américa antigua*. México: Equipo Sirius, S.A. ISBN 84-86639-66-2.
- Iwaniszewski, Stanislaw. *Pecked Cross-Circles*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 737.
- Justeson, John. *Colonial Zapotec Calendars and Calendrical Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 759. Zapotec people in Mexico.
- Lebeuf, Arnold. Cave of the Astronomers at Xochicalco, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 749.
- Licea, Esperanza Carrasco, and Carramiñana Alonso, Alberto. *Metztli, La Luna*, Diario Síntesis, 28 May 1996
- Murray, William Breen. *Boca de Potrerillos*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 669.
- Spinden, Herbert J. *The Question of the Zodiac in America*, , American Anthropologist, New Series, Vol. 18, No. 1, (Jan – Mar 1916), pp. 53 – 80.
- Trejo, Jesús Galindo. Templo Mayor, Tenochtitlan – Calendar and Astronomy, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 743.

Online:

- Aztec Mythology: https://www.windows2universe.org/?page=/mythology/aztec_culture.html
- Diccionario náhuatl - español en línea en AULEX: https://aulex.org/nah-es/
- El Códice París http://www.famsi.org/spanish/mayawriting/codices/paris.html
- Los Códices de México: https://iconio.com/ABCD/F/INDEX.PDF
- Real cédula prohibiendo la historia general de las cosas de Nueva España de Fray Bernardino de Sahagún: http://www.traduccionliteraria.org/1611/esc/america/sahagun.htm
- The Birth of Venus (A traditional Aztec story, by Marcos Carías): http://unawe.org/resources/education/birth_of_venus_eng/

**Barasana:** Barasana (Barazana, Barasano, Panenua, Pareroa, or Taiwano) is an exonym applied to a Tucanoan group located in the eastern part of the Amazon Basin in Columbia and Brazil. Resources include:

- Hugh-Jones, Stephen. *The Pleiades and Scorpius in Barasana Cosmology*, in Annals of the New York Academy of Sciences, December 2006.

**Bororo:** The Bororo people are indigenous to the Mato Grosso and Goias states of Brazil and part of Bolivia.

Resources include:

- Belmonte, Juan Antonio, and Barba, Josep F. *Moxos' Lagoons*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 959.

**Bribri:** The Bribri are indigenous to coastal Costa Rica and northern Panama.

**Chilean:** Many of the asterisms listed here come from peoples indigenous to Chile, but some come from popular culture in modern Chile.

**Ch'ol:** The Ch'ol are indigenous to the northern Chiapas highlands in Mexico.

**Ch'orti':** The Ch'orti' (Chorti' Maya) are a Mayan people indigenous to southeastern Guatemala, northwestern Honduras, and northern El Salvador. They speak a survival of Classic Choltian, the language of the inscriptions in Copan.

**Chuj**: The Chuj (Chuh) are a Mayan people indigenous to Guatemala and Mexico.

**Desana:** The Desana are part of the Tukano language group and are indigenous to the equatorial rainforests of the northwestern Amazon.

**Guaraní:** The Guaraní, historically referred to by Europeans as Chiriguano, are indigenous to the Bolivian foothills of the eastern Andes and Argentina. They are linguistically and culturally related to the Tupí-Guaraní of the tropical rain forests of the Amazon basin.

Resources include:

- De Mello, Flávia Cristina. *Astronomy and Cosmology of the Guarani of Southern Brazil*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 975.
- Pereira, Gonzalo. *"Chiriguano" Astronomy – Venus and a Guarani New Year*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 967.

**Guipunave:** These are group of the Maipure peoples of the upper Orinoco River in Venezuela and Colombia who speak an Arawakan language.

**Guna:** The Guna (Kuna, Cuna) people are indigenous to Panama and Columbia.

**Haliti-Paresi:** These people speak Haliti-Paresi (Paresi or Paresi-Haliti) an Arawakan language. They are indigenous to the state of Mato Grosso in Brazil.

**Ho kod ke:** The Ho kod ke (historically referred to as the Trumai or Trumaí) are indigenous to the Xingu Indigenous Park in the Mato Grosso region of Brazil.

**Ikoots:** The Ikoots (Kunajts), also known by the exonym Huave or Huaves, are indigenous to the Isthmus of Tehuantepec in Mexico.

**Inca:** The Inca civilization in Ancient Peru extended between 1400 — 1533 C. E. and extended across Western South America from Quito in the north to Santiago in the south.

Resources on Inca asterisms include:

Publications:

- Balbi, José Nicholás, *Meaning and Coincidences: A Study into the Archeoastronomy of Inca Structures and their Ritual Significance*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 87.
- Benfer, Robert A. Jr. *Early Mounds in Peru that Resemble Mythical Animals Have Astronomical Orientations and Alignments*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 359.

- Brosseder, Claudia. Astrology in seventeenth-century Peru, Studies in History and Philosophy of Biological and Biomedical Sciences 41, 2010, pp. 146 – 157.
- Dearborn, David S. P. and Bauer, Brian S. *Inca Astronomy and Calendrics*, in Ruggles, Clive L. N. *Geoglyphs of the Peruvian Coast*, Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 821, pg. 831.
- Dearborn, David S. P. and Bauer, Brian S. *Island of the Sun: Elite and Non-Elite Observations of the June Solstice*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 893.
- Gullberg, Steven R. Archeoastronomy of the Inca Empire, OUCIS YouTube Channel: https://www.youtube.com/watch?v=uXh93_mpebs
- Gullberg, Steven R. *Astronomy of the Inca Empire*, 2020, Springer.
- Malville, J. McKim: The Astronomy of the Inca Royal Estates in the Sacred Valley (Peru): https://www.academia.edu/27481227/Astronomy_of_Inca_Royal_Estates_I_The_Sacred_Valley
- Malville, J. McKim. *Inca Royal Estates in the Sacred Valley*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 865.
- Malville, J. McKim. *Machu Picchu*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 879.
- Rojas Gamarra, Milton and Rojas Gamarra, Gabriela. Inkas Constellation, in in Rappenglück, Michael A. and Shaltout, Mossalam (Eds.), From Alexandria to Al-Iskandariya, SEAC conference, Egypt, 2009, pg. 174.
- Ziółkowski, Mariusz, Kośiuk, Jacek, and Victoria, Fernando Astete. *Astronomical Observations at Intimachay (Machu Picchu): A New Approach to an Old Problem*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 391.
- Ziólkowski, Mariusz. *Inca Calendar*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 839.
- Ziólkowski, Mariusz, Kościuk, Jacek, and Astete, Fernando. *Inca Moon: Some Evidence of Lunar Observations in Tahuantinsuyu*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 897.
- Zuidema, R. Tom. *Ceque System of Cuzco: A Yearly Calendar-Almanac in Space and Time*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 851.

Online:

- Gullberg, Steven R. 10 Inca Solar Horizon Events, Part 1, 20 March 2021, Bridges Between Cultures, NASE Virtual: https://www.youtube.com/watch?v=IfvfQtFGqaI
- Gullberg, Steven R. 10 Inca Solar Horizon Events, Part 2, 20 March 2021, Bridges Between Cultures, NASE Virtual: https://www.youtube.com/watch?v=-D4JhuuoDlc
- Inca Astronomy: Dark Constellations in the Sky: https://www.salkantaytrekking.com/blog/inca-astronomy-dark-constellations-in-the-sky/
- Inca Astronomy: How the Incas Saw the Stars: https://www.peruforless.com/blog/inca-astronomy/
- Looking at the Sky through the Eyes of the Inca : https://www.peruforless.com/blog/ancient-astronomy-looking-sky-eyes-inca/

- "Tales of Wandering Stars" (A tale from Inca Mythology, about the planets, by Germán Puerta Restrepo): http://unawe.org/resources/education/tales_of_the_wandering_star_eng/
- The Dark Constellations of the Incas: https://futurism.com/the-dark-constellations-of-the-incas

Video:

- *The Secrets of the Incas* (with William Sullivan, a sometimes controversial scholar who has devoted his career to understanding the Incase in terms of their astronomy and cosmology): https://www.youtube.com/watch?v=dbkSxDyPp6k

**Ixil:** The Ixil are a Mayan people indigenous to Guatemala.

**Jakaltek:** The Jakaltek (Jacalteca) are a Mayan people indigenous to the foothills of the Cuchumatán Mountains of northwestern Guatemala.

**Jicaque:** The Jicaque (Tolupan) people are indigenous to Honduras.

Resources include:

- Mejuto, J. and Rodas, E. *Tolupan Universe: A Mesoamerican Cosmovision*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 144. Honduras

**Kalapalo:** The Kalapalo people are indigenous to the Upper Xingu River region of the state of Mato Grosso in Brazil.

**Kalina:** The Kalina are a Carib speaking people of the Guianas.

**Kalinago:** The Kalinago (Island Caribs or simply Caribs) are indigenous to the Lesser Antilles in the Caribbean.

**Kaqchikel:** The Kaqchikel (Kachiquel, Cakchiquel, Kakchiquel, Caqchikel, Chachiquel) are a Mayan people indigenous to the midwestern highlands in Guatemala.

**Karajá**: The Karajá (Carajá, Iny) people are indigenous to central Brazil.

Resources include:

- De Freita Mourão, Ronaldo Rogério. *The Aspects of the Brazilian Archeoastronomical Culture*, in Rappenglück, Michael A. and Shaltout, Mossalam (Eds.), From Alexandria to Al-Iskandariya, SEAC conference, Egypt, 2009.

**K'iche':** The K'iche' (Spanish exonym Quiché) are a Mayan people indigenous to what is now Guatemala.

**Kobeua**: The Kobeua are indigenous to Colombia.

**Kogi:** The Kogi peoples (Cogui, Kágaba) are indigenous to the Sierra Nevada de Santa Marta mountains of northern Colombia.

**Lacandon:** The Lacandon (Lacandone, Lacandón) peoples are one of the Maya peoples and are indigenous to the Mexican state of Chiapas.

**Lokono**: The Lokono are an Arawak speaking peoples are indigenous to the Guianas on the Atlantic coast of northwestern Guyana, Suriname, and northwestern French Guiana. What I've listed here is only a fraction of their former stellar knowledge, which has been gradually lost through colonialism.

Resources on Lokono sky lore include:

Publications:


- Abbenhuis, M.F. *Arawakken in Suriname: Enquête-Materiaal Voor Een Volkenkundige Studie*, 1939, Paramaribo: Leo Victor.
- Ahlbrinck, Willem. *Encyclopaedie Der Karaïben*, 1931, Amsterdam: Koninklijke Akademie van Wetenschappen.
- Baarle, Peter van, Mauricius Alberto Sabajo, van der Stap Gerdy, Sabajo Andreas L., and Sabajo Lucia L. *Arhwaka lokonong djang: Arowakse taalkursus en woordenboek*, 1989, Haarlem, Amsterdam: Sociaal-culturele Vereniging Ikyoshie ; Instituut voor Algemene Taalwetenschap, Universiteit van Amsterdam.
- Bennett, John P. *Twenty-Eight Lessons in Loko (Arawak): A Teaching Guide*, 1995, Georgetown, Guyana: Walter Roth Museum of Anthropology.
- Brett, William Henry, *Legends and Myths of the Aboriginal Indians of British Guiana*, 1880, London: Williams Wells Gardner.
- Brett, William Henry. *The Indian Tribes of Guiana: Their Condition and Habits,* 1868, London: Bell and Daldy.
- Coll, Cornelius van. *Gegevens over Land En Volk van Suriname I - Suriname's Oorspronkelijke Bevolking*, 1903, Bijdragen Tot de Taal-, Land- En Volkenkunde / Journal of the Humanities and Social Sciences of Southeast Asia 55 (1): 453–529.
- Courtz, H. *A Carib Grammar and Dictionary*, 2008, Toronto, ON, Canada: Magoria Books.
- Dance, Charles D. *Chapters from a Guianese Log Book*, 1881, Georgetown, Guyana.
- Everard, Ferdinand. *Among the Indians of Guiana: Being Sketches Chiefly Anthropologic from the Interior of British Guiana*, 1883, London: K. Paul, Trench & Company.
- Goeje, Claudius Henricus. *De Inwijding Tot Medicijnman Bij de Arawakken (Guyana) in Tekst En Mythe*, 1942, "Bijdragen Tot de Taal-, Land- En Volkenkunde van Nederlandsch-Indië 101: 211–76.
- Goeje, Claudius Henricus. *Philosophy, Initiation and Myths of the Indians of Guiana and Adjacent Countries*, 1943, Archives Internationales d'ethnographie. 44.
- Goeje, Claudius Henricu. *The Arawak Language of Guiana*, 1928, Amsterdam: Uitgave van der Koninklijke Akademie von Wetenschappen te Amsterdam.
- Jara, Fabiola. *Skyscape of an Amazonian Diaspora: Arawak Astronomy in Historical Comparative Perspective*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 931.
- Laet, Joannes. *Novus Orbis, Seu Descriptionis Indiae Occidentalis Libri XVIII*, 1633, Leiden: Apud Elzevirios.
- Lima, Flávia Pedroza. *Astronomy in Brazilian Ethnohistory*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 945.
- Magaña, Edmundo, and Fabiola Jara, *The Carib Sky*, 1982, Journal de la Société des Américanistes 68 (1): 105–32.
- Navarette, Rodrigo Pérez, *Relación de Las Provicias y Naciones Que Los Indios Llamados Aruacas [Tienen] [...],*1964, in Relaciones Geográficas de Venezuela, edited by Antonio Arellano Moreno, 83–87. Caracas: Academia Nacional de la Historia.
- Penard, Frederik Paul, and Penard, Arthur Philip. *De Menschetende Aanbidders Der Zonneslang*, 1907, Paramaribo: H.B. Heyde.
- Roth, Walter Edmund. *An Inquiry into the Animism and Folk-Lore of the Guiana Indians*, 1915, Annual Report, Smithsonian Institution Bureau of American Ethnology 30. Washington: U.S. Government Printing Office.

- Roth, Walter Edmund. *An Introductory Study of the Arts, Crafts, and Customs of the Guiana Indians*, 1924, Washington, DC: U.S. Government Printing Office.
- Schumann, Christian Ludwig. *Arawakish-Deutsches Wörterbuch,* 1882, in Grammaires Et Vocabulaires Roucouyenne, Arrouague, Piapoco Et D'autres Langues De La Région Des Guyanes, Par J. Crevaux, P . Sagot, L. Adam..., edited by Jules Nicolas Crevaux, Paul Antoine Sagot, and Lucien Adam, 7–165. Paris: Maisonneuve.

Online:

- State-of-the-Art in the Development of the Lokono Language, Rybka, Konrad, 2015, Language Documentation and Conservation 9: 110–13.
- Contact-Induced Phenomena in Lokono (Arawakan), Rybka, Konrad, 2017, in Boundaries and Bridges, edited by Kofi Yakpo and Pieter C. Muysken. Berlin, Boston: De Gruyter, pp 257-281.
- Arawak manuscripts, American Philosophical Society, manuscript number: Mss.498.3.Sch8. Page 562 in the original manuscript, which corresponds to page 576 in the digitalized document. The image was reduced in size, cropped, and reproduced here with the kind permission of the American Philosophical Society.


**Mam:** The Mam are indigenous to the western highlands of Guatemala and southwestern Mexico. In pre-Columbian times the Mam were part of the Maya civilization, their capital being at Zachuleu.

**Manche Ch'ol:** The Manche Ch'ol (Manche Chol) are a Maya people indigenous to the extreme south of the Petén Department of Guatemala around Lake Izabal and southern Belize. They speak the Cholan language.

**Mapuche**:

The Mapuche are indigenous to south central Chile and southwestern Argentina, including parts of Patagonia and part of the Mapudungung language group. Resources include:


- Menares, Gabriel P. *Acercamiento a un Estillo de Astronomía Mapuche: Las diferentes formas de observar los Astros*, 4 April 2008

Online:

- Calbucura, Jorge. *Melipal: The Southern Cross*, European Southern Observatory: https://www.eso.org/public/teles-instr/paranal-observatory/vlt/vlt-names/melipal/
- Catricheo, Yasmin. *Mapuche Cosmovision of the Universe*, 2 August 2022, https://www.youtube.com/watch?v=yZhuBDxJ1Vo


**Mayan**: Like the Aztecs, the Mayans used the sky as a calendar and had developed an extensive sky culture, but much of this was lost as a result of the Spanish conquest of the 16th century. Many pre-Hispanic codices recorded on skins, cloth, or papers were either destroyed by the conquerors or, if collected, were later neglected. For example, the Paris Codex (Codex Peresianus or Codex Pérez), one of three pre-Columbian Maya books dating to between 900 – 1521 C.E, was long forgotten until the priest Leon Rosny found it in 1859 in a chimney corner of the National Library of Paris: It had suffered substantial damage, and much was lost, but it did describe some Mayan asterisms.

The Mayan asterisms for Stellarium were contributed by Eduardo Rodas-Quito and Javier Mejuto of the Archaeoastronomy and Cultural Astronomy Department at Space Sciences Faculty, Universidad Nacional Autonoma de Honduras.

Resources on Mayan sky lore include:

Publications:

- Aveni, Anthony. *Between the Lines: The Mystery of the Giant Ground Drawings of Ancient Nasca, Peru*. 2000, U. of Texas Press.
- Aveni, Anthony *"Emissaries to the Stars: The Astronomers of Ancient Maya"* in Mercury (the magazine of the Astronomical Society of the Pacific), Jan/Feb. 1995, p. 15.
- Aveni, Anthony. *The End of Time: The Maya Mystery of 2012*. 2009, University Press of Colorado.
- Aveni, Anthony. *Skywatchers*. 2001, U. of Texas Press.
- Aylesworth, Grant R. E-*Group Arrangements*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 783.
- Aylesworth, Grant R. *Layout of Ancient Maya Cities*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 769.
- Barnhart, Edwin "*Reconstructing the Heavens: Archaeoastronomy and the Ancient Maya World"* in Mercury, Jan/Feb. 2004, p. 20.
- Freidel, D., Schele, L., Parker, J. *Maya Cosmos: Three Thousand Years on The Shaman's Path*, (1993) New York: William Morrow and Company Inc.
- Furbee, N. Louanna. *Ethnography in Support of Archaeoastronomy: The Meaning of Tojolab' al Maya Mountain Alignments*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 277.
- Hohmann, Hasso. *Calendar House at Copan? Orientation of Structures in the Sepulturas Region*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 139Iwaniszewski, Stanislaw. *Astronomy at Teotihuacan*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 729.
- Iwaniszewski, Stanislaw. *Counting Lunar Phase Cycles in Mesoamerica*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 709.
- Iwaniszewski, Stanislaw. *Lunar Cycles Among the Classic Maya – From Lunar Symbolism to the Lunar Series,* in Rappenglück, Michael A. and Shaltout, Mossalam (Eds.), From Alexandria to Al-Iskandariya, SEAC conference, Egypt, 2009
- Iwaniszewski, Stanislaw. *The Length of the Year in Maya Calendar and Astronomy*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 287.
- Iwaniszewski, Stanislaw. *The Use of the Palenque Ratio in the Lunar Series as a Means to Preserve the Legitimacy of the Ruling Dynasty of the Palenque Kingdom*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 133. Kurtz, P. *"An Astronomer Reads Archeology's Message*" in Astronomy, Oct. 2002, p. 48. Profile of Anthony Aveni, with a focus on his work on Mayan structures.
- Klokočník, Jaroslav, and Kostelecký. Palenque: Astronomical-Solar Orientation of Pakal's Tomb, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX. Pg. 305.

- Milbrath, Susan. *Astronomical Deities in Ancient Mesoamerica*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 683.
- Milbrath, Susan *Star Gods of the Maya: Astronomy in Art, Folklore, and Calendars*, University of Texas Press, 1999.
- Sokol, Joshua. *The Stargazers*, Science.org, 2022 June 6.
- Šprajc, Ivan. *Astronomical Correlates of Architecture and Landscape in Mesoamerica*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 715.
- Šprajc, Ivan, and Sánchez Nava, Pedro Francisco. *Equinoxes in Mesoamerican Architectural Alignments: Prehispanic Reality or Modern Myth?* in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 319.
- Šprajc, Ivan. *Governor's Palace at Uxmal*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 773. Tedlock, B. *Maya Astronomy: What We Know and How We Know It*, 1999, Archaeoastronomy, The Journal of Astronomy in Culture , XIV(1), pp.: 39-58.
- Šprajc, Ivan. *Solar Alignments and Observational Techniques in Mesoamerica*, in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 135.
- Vail, Gabrielle. *Astronomy in the Dresden Codex*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 695.
- Van Stone, Mark. *Science and Prophecy of the Ancient Maya*. See: http://markvanstone.com/books/
- Zito, Richard R. *Possible Mesoamerican Naked-Eye Observation of Sunspots- III: Evidence from the Hauberg Stela*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 339.
- Zito, Richard R. *Possible Mesoamerican Naked-Eye Observation of Sunspots – IV: Evidence from Tikal Stella 31*, in Šprajc, Ivan, and Pehani, Peter, eds. Ancient Cosmologies and Modern Prophets, Proceedings of the 20th Conference of the European Society for Astronomy in Culture, 2013, Slovene Anthropological Society, Ljubljana, Anthropological Notebooks, 2013, Year XIX, pg. 347.

Online:

- Activity from NOVA to figure out your birthday in the Maya calendar (if you were born 1980 or after): http://www.pbs.org/wgbh/nova/teachers/activities/pdf/2804_maya.pdf
- Bonampak, Viviendo el tiempo maya: https://maya.nmai.si.edu/es/gallery/bonampak
- Calendar in the Sky (connects Maya knowledge to modern astronomy; produced by the education group at the Berkeley Space Sciences Lab): http://multiverse.ssl.berkeley.edu/CalendarInTheSky
- *El mito del diluvio en las ceremonias de entronización de los gobernantes mayas. Agentes responsables de la decapitación del saurio y nuevas fundaciones*, Garcia Barrios, A., 2015,

Estudios de cultura maya, 45(45), pp. 9-48: https://www.sciencedirect.com/science/article/pii/S0185257415300010

- Hawkins, Isabel, and Ávila Vera, Maria. *Indigenous Perspectives on Earth, Water, and Sky*, Indigenous Education Institute Speaker Series, August 1, 2022 https://www.youtube.com/watch?v=-ElS_RUQdgs&t=2s

- IAU Portal to the Heritage of Astronomy: https://www3.astronomicalheritage.net/index.php/show-theme?idtheme=8
- Maya Exploration Center (Dr. Edwin Barnhart): http://www.mayaexploration.org/
- Špoták, Jakub: *The Paris Codex: Complex Analysis of an Ancient Maya Manuscript* (Dissertation) by https://www.academia.edu/25028815/The_Paris_Codex_Complex_Analysis_of_an_Ancient_Maya_Manuscript_Dissertation_?auto=download
- The Maya Astronomy Page (Dawn Jenkins): http://www.michielb.nl/maya/astronom.html
- Traditions of the Sun: Explore the World's Ancient Observatories (includes tours of Maya sites and traditions): http://www.traditionsofthesun.org/

Video:

- Aveni, Anthony. *"The End of Time"* at Marlboro College; delivered 9/13/2010; 1 hr 2 min): http://www.youtube.com/watch?v=exQGTvZ5aKw
- *Maya Astronomy and Mathematics* (from NASA Connect, with Sten Odenwald) [8 min]: http://www.youtube.com/watch?v=5W9zFwBQb6c
- *Where Did it Come From on Mayan Astronomy*, History Channel: https://www.youtube.com/watch?v=-r7VATSg0ag
- *"Why We Will Still Be Here on Dec. 21 [2012]"* (a panel on the predictions of Doomsday 2012, with information on the Maya calendar by E.C. Krupp; recorded in 2012 at the SETI Institute): http://www.youtube.com/watch?v=WA5FC0in6U8
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**Moche:** The Moche civilization existed between 100 – 700 C.E. in northern Peru.

**Mocoví:** The Mocoví (Moqoit) or inhabit the southern area of the Chaco region of Argentina who are part of the Guaycurú linguistic group. Resources include:

- López, Alejandro Martín. *Signs, Not Phenomena: Moqoit Cosmo-politics and Alternative Experiences of the Sky*, in Advancing Cultural Astronomy, Studies in Honor of Clive Ruggles, Boutsikas, Efrosyni, McCluskey, Stephen C. and Steele, John (eds), Springer, April 2021.
- Mudrik, Armando. *A Eucalyptus in the Moon: Folk Astronomy among European Colonists in Northern Santa Fe Province, Argentina*, in Oxford IX, International Symposium on Archaeoastronomy Proceedings, Ruggles, Clive L. N. (ed.), IAU Symposium No. 278, 2011.
- Mudkrik, Armando. *Ethnoastronomy in the Multicultural Context of the Agricultural Colonies in Northern Santa Fe Province, Argentina*, Springer, 2014.

**Mopan:** The Mopan are a sub=ethnic group of the Maya indigenous to Belize and Guatamala.

**Muisca**: The Muisca (Chibcha) people are indigenous to the Altiplano Cundiboyacense in Columbia.

**Múra:** The Múras are indigenous to the central and eastern parts of Amazonas, Brazil, along the Amazon River from the Madeira to the Purus.

**Nahuas:** The Nahuas are indigenous to Mexico, El Salvador, Guatemala, Honduras, and Nicaragua. The Mexica (Aztecs) were of Nahua ethnicity, and the Toltecs are thought by some to be as well. They speak variants of the Nahuatl languages

**Nambikwara**: The Nambikwara (Nambikuara) peoples are indigenous to the Amazon, Guaporé, and Juruena Rivers of Brazil.

**Nawat:** The Nawat (Pipil, Nahuat, Nicarao) is a Nahuan people indigenous to the area of El Salvador.

**Palikur:** The Palikur people are indigenous to the riverine areas of the state of Amapá in Brazil and in French Guiana, especiall in the south-eastern border region on the north bank of the Oyapock River. Resources include:

- Green, Lesley, and Green David. *The Rain Stars, the World's River, the Horizon, and the Sun's Path: Astronomy Along the Rio Urucauá, Amapá, Brazil*, in Tipití: Journal of the Society for the Anthropology of Lowland South America, Volume 8, Issue 2, Article 3, 2010.

**Pemón**: The Pemón (Pemon) peoples are indigenous to the southeast of Venezuela, the Roraima State of Brazil, and Guyana. This language group has several dialects, including Arecuna (Arekuna), Camaraacoto, Ingariko, Taulipang, and Taurepan. Groups in this language include the Pemón, Akawaio, and Patamono peoples.

**Poqomam**: The Poqomam (Pokomam) are a Mayan people indigenous to Guatemala and El Salvador. They are closely related to the Poqomchi'.

**Poqomchi'**: The Poqomchi' (Pokomchi) are a Mayan people indigenous to Guatemala. They are closely related to the Poqomam.

**Q'eqchi:** The Q'eqchi' (Kekchi) are a Maya people of Guatemala and Belize, who speak the Q'eqchi' language.

**Quechua:** The Quechua people are the descendants of the Incas, and are indigenous to Peru and parts of Ecuador, Bolivia, Chile, Columbia, and Argentina. Resources include:

- Urton, Gary. Orientation in Quechua and Incaic Astronomy, Ethnology, Vol. 17, No. 2, April 1978, pp. 157 – 167. http://www.jstor.org/stable/3773141
- Urton, Gary. *Celestial Crosses: The Cruciform in Quechua Astronomy*, Journal of Latin American Lore 6:1, pp. 87 – 110, 1980.

**Sápara:** The Sápara (Zápara, Záparo) people are indigenous to the Amazon rainforest along the border of Ecuador and Peru.

**Secoya:** The Secoya (Angotero, Encabellado, Huajoya, Piojé, Sikopai) people are indigenous to the Ecuadorian and Peruvian Amazon.

**Selk'nam:** The Selk'nam (Onawo, Ona) are indigenous to the Patagonian region of southern Argentina and Chile, including the Tierra del Fuego islands.

Resources include:

- Benitez, Sixto R. Giménez. *Selk'nam Astronomy*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 1005.

**Seri:** The Seri (Comcaac) people are indigenous to the Mexican state of Sonora.

Resources include:

- Blanco, Arturo Morales, Aguilar Zeleny, Alejandro, Saucedo Morales, Julio, Perez-Enriques, Raul, and trejo, Jesus Galindo. *Identification of Seris' Constellations from Memory and Experience,* in Draxler, Sonja and Lippitsh, Max L. [ed.], *In Harmony and Symmetry: Celestial Regularities Shaping Human Culture*, Aug. 27 – Sep. 1, 2018, 26th Annual Meeting of the European Society for Astronomy in Culture, Graz, Austria, Online Edition, pg. 205. Seri

**Shipibo-Conibo:** The Shipibo-Conibo are indigenous to the region of the Ucayali River in the Amazon rainforest of Peru. Originally these were two groups which eventually merged through intermarriage and communal ritual.

**Siona**: The Siona (Sioni, Pioje, Pioche-Sioni) are indigenous to the Ecuadorian Amazon and Putumayo Department in Columbia.

**Taíno:** The Taíno people are in the Arawak language group and are indigenous to what is now Cuba, Hispaniola, Jamaica, Puerto Rico, the Bahamas, and the northern Lesser Antilles.

**Tapirapé:** The Tapirapé are indigenous to the Amazon rainforest of Brazil.

**Tepehuán:** The Tepehuán peoples are indigenous to northwestern, western, and north central Mexico

**Ticuna:** The Ticuna are indigenous to the Solimoes River region of Brazil, Columbia, and Peru.

Resources include:

- Faulhaber, Priscila. *Ticuna Astronomy, Mythology and Cosmovision*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 953.

**Timbira:** The Timbira are a group of Timbira speaking Jê peoples native to Northern and Northeastern Brazil.

**Toba:** The Toba (Qom) people are indigenous to Argentina. Note: There is an unrelated Batak group in Indonesia called the Toba.

Resources include:

- Flaquer, Breezy Ocaña. *Taino Astronomy*, San Diego State University, NASE, Dominican Republic, 2020.
- Gómez, Cecilia Paula. *The Sky Among the Toba of Western Formosa (Gran Chaco, Argentina),* in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015 pg. 981.
- Gómez, Cecilia Paula. *The Youth and Old Age of Dapi'chi (the Pleiades): Frosts, Air Carnations, and Warriors*, Oxford IX, International Symposium on Archaeoastronomy Procedings, Ruggles, Clive L. N., ed., No. 278, 2011.
- López, Alejandro Martín. *Astronomy in the Chaco Region, Argentina*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 987.
- López, Alejandro Martín. *Signs, Not Phenomena: Moqoit Cosmo-politics and Alternative Experiences of the Sky*, in Advancing Cultural Astronomy, Studies in Honor of Clive Ruggles, Boutsikas, Efrosyni, McCluskey, Stephen C. and Steele, John (eds), Springer, April 2021.
- Mudrik, Armando. *Ethnoastronomy in the Multicultural Context of the Agricultural Colonies in Northern Santa Fe Province, Argentina*, in Ruggles, Clive L.N., ed.: *Handbook of Archaeoastronomy and Ethnoastronomy,* Springer Reference, 2015, pg. 997.

**Tojolabal:** The Tojolabal are a Mayan people of the Mexican state of Chiapas.

**Totonac:** The Totonac are indigenous to the states of Veracruz, Puebla, and Hidalgo in Mexico.

**Tukano**: The Tukano or Tukana are the indigenous tribes in the northwestern region of Brazil, near Columbia and Venezuela. The asterisms that I've listed are from a group on the banks of the Rio Rio Tiquié within the Rio Negro Bay area in the Amazonas State, Brazil. Resources on Tukano sky lore include:

- Cardoso, Walmir Thomazi. *Constellations and Natural Cycles within Tukano's People*, IHPST Thirteenth Biennial International Conference, Rio de Janeiro, July 22 – 25, 2015.
- Cardoso, Walmir Thomazi. *Constellations and Time Keeping used by Indigenous Communities in the Northwestern Amazonia Region*, Pontifícia Universidade Católica de São Paulo, 2016.

The Stellarium asterisms were developed from a survey conducted between 2005 - 2007 that resulted in a doctoral/PhD thesis (Cardoso, 2007). This relied on Ethnomathematics sources (D'ambrosio, 2002), in practical sky observation activities and on classical sources about constellations observed in Brazil's Amazon region. This resulted in a sky map of Tukano, Dessano and Tuyuka sky lore, focusing on the Tukano. Walmir Thomazi Cardoso gathered this information in a survey that is part of his PhD. Thesis of Ethnomathematics (walmir.astronomia@gmail.com). Artwork was done by Antonio Gumercindo Taques dos Santos (Ticão) and Youssif Ganthous Filho (youssif@gmail.com).

**Tupi:** The Tupi were once one of the most numerous indigenous people of Brazil prior to colonization but were almost completely annihilated by Portuguese colonists. Remnants are confined to indigenous territories today.

Resources include:

- De Freita Mourão, Ronaldo Rogério. *The Aspects of the Brazilian Archeoastronomical Culture*, in Rappenglück, Michael A. and Shaltout, Mossalam (Eds.), From Alexandria to Al-Iskandariya, SEAC conference, Egypt, 2009.

**Tupi Guarani**: Tupi Guarani is a family of languages of the indigenous people of Brazil and neighbouring South American countries. The information listed here is from the book Histoire de la Mission de Pères Capucins en l'Isle de Maragnan et terres circonvoisins, published in Paris, 1614. This book reports that the Tupi people identified some thirty asterisms in their sky culture, but unfortunately the author of the book only details seven of them.

Paulo Marcelo Pontes: created the Tupi Guarani asterisms on Stellarium.

Here are some resources:

- Afonso, Germano Bruno. *The Brazilian Indigenous Constellations*, (this is published in Portuguese): http://www.telescopiosnaescola.pro.br/indigenas.pdf
- Lima, Flavia Pedroza, and De M. Figueirôa, Silvia Fernanda. *Indigenous Astronomical Traditions as Related by the First Ethnologists in Brazil,* Achaeologia Baltica 10, July 2007.

**Tupinambá:** The Tupinambá people are indigenous to the east coast of Brazil.

**Tzeltal**: The Tzeltal are Mayan people of Mexico, primarily found in the highlands of Chiapas.

**Tzotzil:** The Tzotzil are a Mayan people indigenous to the Chiapas highlands in southern Mexico.

**Tz'utujil:** The Tz'utujil are a Mayan people indigenous to Guatemala.

**Uanana:** The Uanana people are indigenous to Brazil.

**Volga Community:** This is a German community in the Chaco region of Argentina who moved from the Volga in Russia in the late 19th century.

**Waorani:** The Waorani peoples are indigenous to the Amazon regions of Ecuador.

**Wichi:** The Wichi (Mataco) people are indigenous to the area of the headwaters of the Bermejo River and the Pilcomayo River in Argentina and Bolivia belong to the Mataco-Maká language family along with the Chorote, Maká, and Nivaclé people. Resources include:

- Mariani, Mauro, Gómez, Cecilia Paula, and Benitez, Sixto Gimémez. A Look at the Sky of the Wichi, Ensaio Bibliográfico, Revista Anthropológicas, Ano 21, 28 (1), 279 – 293, 2017.

**Xerénte**: The Xerénte (Sherenté, Serente, Xerentes, and Xerénte) are indigenous to Tocantis in Brazil.

**Yucatec**: The Yucatec peoples are indigenous to the Yucatan peninsula and speak the closest living language to the original Mayan language.

**Zaparoan**: Zaparoan (Sáparoan, Záparo, Záparoan, Zaparoano, Zaparoana) people are an endangered language family of Peru and Ecuador with fewer than 100 speakers who have been decimated by imported diseases and warfare. There were 39 Zaparoan speaking tribes at the beginning of the 20$^{th}$ century.

## Appendix 1: ASTRONOMICAL CATALOGUES MENTIONED IN THIS LIST:

**Alessi Catalogue:** Bruno Sampaio Alessi's catalogue of telescopic asterisms and open star clusters.

**Barnard Catalogue** (B): Edward Emerson Barnard created a catalogue of dark nebulae in 1919. He was assisted by his niece, Mary Ross Calvert.

**BBW**: Bok, Bester, and Wade catalogue of southern H alpha emissions.

**BRAN**: Brand, Blitz, and Wouterloot catalogue of small nebulae. NOTE: used to also be called BBW, changed by Simbad to avoid confusion.

**Caldwell Catalogue (C )**: Created by English amateur astronomer and science educator Sir Patrick Alfred Caldwell-Moore (1923 – 2012). It is a list of 109 star clusters, nebulae, and galaxies.

**Cederblad Catalogue (Ced)**: This catalogue of bright diffuse galactic nebulae was created by Swedish astronomer Sven Cederblad in 1936.

**Collinder Catalogue (Col or Cr):** A catalogue of open clusters created by astronomer Per Collinder (1890 – 1974) in 1931.

**Dolidze-Dzimselejsvili Catalogue of Open Clusters (Do Dz):** Started in 1966 by Russian astronomer Madona V. Dolidze at the Abastumani Astrophysical Observatory in Georgia. Dolidze catalogued 57 open star clusters. Later astronomer G. N. Dzimselejsvili teamed up with Dolidze and added 11 additional clusters. In recent years only 11 of these clusters have been found to be actual open clusters.

**DWB**: Dickel, Wendker, Bieritz. This is a catalogue of optically visible HII regions in the Cygnus X region.

**Elosser Catalogue:** This is a catalogue of asterisms created by American astronomer David Elosser.

**Ennis Catalogue**: This is a list of asterisms discovered by Canadian astronomer Charles Ennis.

**ESO**: European Southern Observatory Catalogue, ESO/Uppsala catalogue.

**Ferrero Catalogue**: This is a catalogue of asterisms created by French astronomer Laurent Ferrero.

**French Catalogue**: Created by American astronomer Sue French, author of *Deep-Sky Wonders: A Tour of the Universe with Sky and Telescope's Sue French*, Sky and Telescope Magazine.

**FRS**: This is the globular cluster list put together by Dirk Froebrich, Aleks Scholz and C. J. Raftery using the 2MASS infrared telescope in 2006.

**Gaia**: These catalogues were created from the results of the Gaia space telescope.

**GM:** Gyulbudaghian-Maghakian (planetary nebulae)

**Gum**: The Gum catalogue is a list of 84 emission nebulae in the southern sky created by Australian astronomer Colin Stanley Gum at the Mount Stromlo Observatory in 1955.

**Harrington Catalogue**: This is a list created by well-known New York astronomer and author Phil Harrington.

**Heckathorn Fesen Gull (HFG):** Published in 1983.

**Henry Draper Catalogue (HD):** Published between 1918 and 1924. Includes 225,300 stars.

**Hipparcos Catalogue (HIP):** This contains 118,218 stars and was published in August 1996.

**Kemble Catalogue**: Created by Father Lucien Kemble (1922 – 1999), who joined the RASC as an unattached member in 1971, becoming a member of the Calgary Centre in 1981 and was awarded the Chilton Prize in 1989.

**LBN Catalogue**: Lynd's Catalogue of Bright Nebulae was created in the 1960s by Beverly Lynds.

**LDN Catalogue**: Lynd's Catalogue of Dark Nebula was created in the 1960s by Beverly Lynds.

**Leiter Catalogue**: This catalogue was created by German astronomer Frank Leiter.

**Levy Catalogue**: This is a list of astronomical objects documented by well-known comet-chaser and long-time member of the RASC, David H. Levy, in his CN-3 observing program, which started in December 1965.

**Mandel Wilson Catalogue of Unexplored Nebulae (MW):**

**Markov** Catalogue: A list of asterisms created by Paul Markov of Toronto Centre RASC.

**Melotte Catalogue (Mel):** Star cluster catalogue created in 1915 by British astronomer Philibert Jacques Melotte (1880 – 1961).

**Messier Catalogue (M)**: List created by French astronomer and comet chaser Charles Messier (1730 – 1817).

**Nagler Catalogue:** List created by American astronomer and optics expert David Nagler.

**New General Catalogue (NGC) and Index Catalogues (IC):** Started as William Herschel's Catalogue of Nebulae and Clusters of Stars (CN), later revised by his son John, and finally transformed into the New General Catalogue by John Louis Emil Dreyer in 1888. Dreyer added two expansions called the Index Catalogues, the first in 1895, and the second in 1908. The NGC and IC catalogues have been revised many times to the present day.

**Outters Catalogue (Ou)**: This is the catalogue of Nicolas Outters.

**Patchick Catalogue**: A list created by astronomer Dana Patchick, a member of the Deep Sky Hunter team that conducted the Digital Sky Survey (DSS) in 2005.

**Perek Kohoutek (PK):** The Perek-Kohoutek catalogue of galactic planetary nebulae.

**PGC:** Principal Galaxies Catalogue.

**PNG (or PN):** Strasbourg-ESO Catalogue of Galactic Planetary Nebulae.

**RCW**: The Rodgers, Campbell, and Whiteoak catalogue (1960) records Hα emission regions in the Milky Way and contains 182 objects.

**Renou Catalogue:** This is a list created by French amateur astronomer and author Alexandre Renou, who writes for the French journal Astronomie Magazine.

**Sandqvist Catalogue:** This dark nebula catalogue was created by astronomer Aage Sandqvist between 1976 and 1977.

**Sharpless Catalogue (SH):** The Sharpless catalogue is a list of 313 HII regions (emission nebulae) first published in 1953 (142 objects) and later in 1959. It includes some planetary nebulae and supernova remnants.

**SL:** Sandqvist Lindroos dark nebulae catalogue.

**Stratton Catalogue**: Created by Troy Stratton, Observing Program Coordinator of The Astronomical League

**Smithsonian Astrophysical Observatory Star Catalogue (SAO)**: Created in 1966 and contains 258,997 stars.

**Supernova Remnants (SNR):** Dave Green's Galactic supernova remnant catalogue was last updated in 2024 and contains 310 supernova remnants.

**TPK Catalogue**: A list of asterisms created by Teutsch, Patchick and Kronberger.

**TYC Catalogue**: Tycho Catalogue.

**UGC**: Ups ala General Catalogue (galaxies).

**VdB:** Van den Bergh catalogue of reflection nebulae

**VdB-H:** Van den Bergh-Herbst open star clusters

**VdB-Ha:** Van den Bergh-Hagen open star clusters

**VV**: Vorontsov Vel'yaminov Interacting Galaxies.