Ore of the Alps UNESCO Global Geopark, Austria

The Nebra Sky Disc – a Bronze Age calendar?

The Nebra Sky Disc, a forged bronze disc with gold plating has a diameter of 320 mm. In the summer of 1999, hobby archaeologists discovered and excavated this find from the Bronze Age near Nebra (Saxonia, Germany).

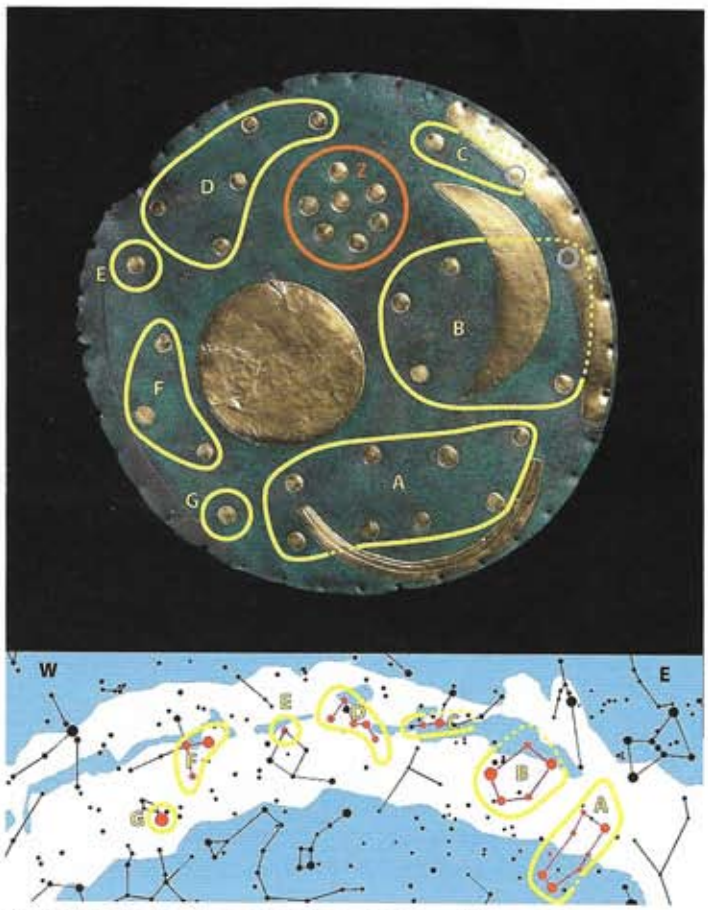
Chemical analyses by several experts have shown that the copper of the bronze disc (an alloy of copper and tin) originates from the prehistoric mines of today's Ore of the Alps UNESCO Global Geopark (Pernicka, E., Lutz, J., Stöllner, T. (2016): Bronze Age Copper produced at Mitterberg, Austria, and its Distribution. Archaeologica Austriaca, 100, 19-55, Vienna).

The first interpretation of the symbols on the disc was presented in 2003 in Halle an der Saale (Saxonia, Germany). This explained the disk as a kind of rural astronomical calendar. To-date experts, such as the Ore of the Alps amateur astronomer Erich Kutil, have constanly provided new interpretations. Kutil's astronomical interpretation is based on the assumption that the star formations incorporated on the disk are consistent with the constellations of the real starry sky.

The illustration shows Kutil's interpretation of the sky disk of Nebra in which the stars (small golden dots on the disk) are assigned to their corresponding constellations in the modern night sky. Are there similarities here - despite a slight change in the constellations over several thousand years?

The map of stars in the night sky shows the current arrangement, from east to west, of constellations in the Milky Way: Gemini (A), Auriga (B), Perseus (C), Cassiopeia (D), Cepheus (E), Cygnus (F) and Lyra (G). If you take a closer look at these constellations, you can also find them on the Nebra Sky Disk. The constellations are positioned along the Milky Way and the number of stars is correct. Two stars (white circles on the Nebra Disc) are considered to be represented by small protruberences on the gold plate in the constellations Auriga (B) and Perseus (C). The pattern and proportions of the inferred constellations on the disc correspond with the relative positions and proportions of these constellations in the map of the night sky. The angular position of the constellations and the order of the images corresponds almost exactly with the modern star map. The "star rosette" shown on the disc (Z) is interpreted as a symbol for the sky zenith, a point in the sky or on the imaginary celestial sphere directly above an observer.

The source of these conclusions can be found in Erich Kutil (2008) "Faszination Himmelsscheibe - Astronomische Deutung der Himmelsscheibe von Nebra" (Fascination Sky Disk - Astronomical Interpretation of the Sky Disk of Nebra). The visitor centre of the Ore of the Alps UNESCO Global Geopark was opened in 2015 with a special exhibition about the Nebra Sky Disk (Fig. 2). This astronomical interpretation is still a component of the permanent exhibition designed by Erich Kutil.



The grouping of stars on the Nebra Sky Disc with the star formations show a compelling similarity with the star constellations within the Milky Way. The inferred constellations in the Bronze Age sky and constellations within the Milky Way are indicated by letters. Grafics GeoGlobe

Guests visit the exhibition "Nebra Sky Disc" at the visitor centre of the Ore of the Alps UNESCO Global Geopark, 2015; Photo by Horst Ibetsberger

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