Last December I was lucky enough to visit the temples, tombs and pyramids of ancient Egypt. When I discovered that our tour guide Egyptologist Dr Wael had based his PhD thesis on the famous Dendera Zodiac, I felt as though I’d hit the jackpot!

The Dendera Zodiac is over 2000 years old and is a bas-relief carving on the ceiling of the Temple of Hathor about 60 km north of Luxor. This representation of the zodiac in circular form is unique in Egyptian art. The heavens are shown as a disc held up by four women representing the four seasons or pillars of the sky with images of the falcon-headed god Horus sandwiched in between.

Inside the circle are the twelve familiar zodiac constellations (Aries, Taurus, etc) along with other major constellations such as Orion. Some have a uniquely Egyptian twist – Aquarius for example is depicted as Hapi, god of the Nile holding two vases gushing water. After the death of Alexander the Great in 323 BC, the throne of Egypt passed to Ptolemy, whose Greek dynasty ruled Egypt for 300 years. The Dendera Zodiac, carved during this period, thus appears to combine Babylonian, Greek and Egyptian cosmology.

Egyptologists have been able to accurately date the Dendera Zodiac to 50 BC as it shows the positions of the stars and planets as they appeared at that time. They
believe the zodiac was designed as a time clock to mark the precession of the equinoxes from the Age of Pisces back to the Age of Taurus in 4700 BC. As our knowledge of Egyptian history grows, it seems that Egyptian priests tracked the movement of stars back to the Old Kingdom and even as far back as the Age of Gemini, circa 6900 BC.

The various axes on the zodiac diagram show the movement of solstices and equinoxes through the constellations from the foundation of Egypt (Age of Taurus) to the time the Dendera Temple was built (Age of Aries) and beyond. Sirius, the brightest star in the sky and harbinger of the annual flooding of the Nile, appears twice - once on the true North-South axis, between the horns of Hathor the cow goddess, and once on the Axis of the Temple, as the falcon-headed god Horus - demonstrating its apparent movement over the centuries.

John Lamb Lash, an expert on sidereal mythology, identified another axis on the Dendera Zodiac, leading from the four rams’ heads near the constellation of Pisces the Fishes, across the pole to the star Spica in the constellation of Virgo the Maiden. He believes this indicates the position of the spring equinox today. At exactly 90 degrees to this axis, another line can be drawn through the tip of the arrow of Sagittarius, which points to Galactic Centre, where the solstice alignment will occur in December 2012.