

Stargazing by Neville Carson

I first started sky watching in about 1994 to 1995 with the aid of the monthly maps found in the newspapers. They show visible constellations, the path of the sun across the sky, the position of the moon and any visible planets.

It takes six months to a year to get the general lay out of the visible stars and to get an idea of the movements of the moon, sun and planets.

At that time the skies were clear most nights which meant I was able to comprehend the layout of our galaxy. In particular I was able to use the belt of the zodiac as a reference point and see the path of the sun, moon and planets.

To find your way around the sky it's essential to have reference points. The most essential is the path of the sun, which varies from it's highest in late June to its lowest in late December, the times of the summer and winter solstices.

The first thing the builders of Stonehenge did was to establish the times of the solstices and the equinoxes, the mid points between the solstices in late March and September. The spring equinox has been used as a sky marker for thousands of years. It does move though, but very slowly, only about one degree every 72 years taking nearly 25,000 years to move around the entire zodiac. Hold your thumb up to the sky at arms length and that's about half a degree.

Given good visibility it takes a year to get the sunrise points at the solstices and equinoxes, four to be more certain. The moon is more erratic, taking 57 years to complete a cycle. To be really sure you need generations of observers to watch out for the most northerly and southerly rising points of the moon, which is what they did at Stonehenge for over 200 years. All they needed to do this was a circular mound with the centre well marked so they had a level horizon and half a dozen stones for the circle. Only once they had done this did they start building the actual monument.

The only thing our "civilisation" has done consistently for over 200 years is make money, lose it and wage war. It takes much longer to figure out the planets. It takes 12 years for Jupiter to make its way round the zodiac and 19 years for Saturn. Mars, Venus and Mercury take much less time being nearer and Uranus, Neptune and Pluto far, far longer being so much further away.

Astronomy is a big subject. I haven't even got out of the solar system yet, let alone the 15 billion light years in every direction!