

Sun or Moon? The Intercalary Rule on the Star Disc

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In an era where we have Organizers, GPS and radio controlled clocks it is difficult to imagine the difficulties encountered in early times to regulate their calendar. In those days the rhythms of the heavens were used to regulate time: the Sun provided the days and the years, the Moon provided the months and the weeks. Farmers need a solar calendar that shows the seasons. The narrow crescent evening Moon, known as the First Crescent, indicates the beginning of a new month just as the Islamic calendar still does today. But how does one reconcile the lunar year with the solar year, which is 11 days longer? In earlier times, this was done by introducing leap months.

We know of just such a rule from the Babylonian Cuneiform *mul-apin* text. If the First Crescent appears by the Seven Sisters star cluster, the Pleiades, during the spring month, in which the year begins, then this is a normal year. If, however, during this month the Moon does not appear in the Pleiades until the third day, it forms a wider crescent – a signal that a leap month must be added. It is exactly this phenomenon that is encrypted on the Star Disc. The width of the lunar crescent on the Star Disc corresponds to the Babylonian leap signal. On the first phase of the Star Disc are depicted the crescent, the golden circle, the seven point rosette and 25 additional golden points numbering 32 in total. The rosette is taken to represent the Pleiades. By interpreting the depiction as a record of an intercalary rule we're not only explaining the width of the lunar Crescent but also providing an explanation for the number 32 and the meaning of the golden circle. The lunar month is 29.5 days long. If a leap month has to be added, the Moon will not appear in the Pleiades in its First Crescent phase but two days later with a wider crescent. In this case, 32 days must elapse from the previous First Crescent Moon. The 32 points on the Disc can thus be interpreted as the 32 days that elapse between the previous First Crescent Moon and the Moon appearing by the Pleiades in the spring month. As a leap signal, these 32 days are just as equally valid as the width of the lunar crescent. The leap signal is therefore doubly encoded on the Star Disc:

- 1.) If a Moon Crescent having the thickness of the depicted crescent appears by the Pleiades in the Spring month, then this is a leap trigger.
- 2.) If 32 days elapse from the First Crescent of the previous month (before the spring month) until the Moon in the spring month, then this is a leap trigger.

But the number 32 also has another meaning, linking the solar and lunar calendars. In 32 solar years, 33 lunar years elapse. If we interpret the golden disc as the Sun, then the 32 points are related to the Sun and we deduce the 32 solar years. If we also count the golden disc, then we get a total of 33. This refers to the Moon, the only remaining object on the disc, and so we get 33 lunar years.

In Prof. Schlosser's current interpretations, that have been extended and not contradicted in this text, the golden disc is interpreted as the Full Moon. Here it is also interpreted as the Sun. Sun OR Moon? The answer is Sun AND Moon. This is elaborated on in a further text.

3600 years ago the Pleiades disappeared in the dusk 12 days before the onset of Spring. If, ideally, the First Crescent Moon appears by the Pleiades on the last day of their visibility, then the Full Moon and the start of Spring coincide. The Full Moon in the Spring Month then signals the start of Spring and with it, in many cultures, the start of the new year.

The Full Moon thus symbolizes the new solar year. Therefore the golden disc can be interpreted as the Full Moon in the Spring month AND as the Sun.

So here we have an astoundingly complex and nested design. On the one hand, the 32 **golden points** encode the leap signal of the 32 days to the Moon-Pleiades positioning. As well as symbolizing both the Full Moon by the Pleiades in Autumn (Schlosser's interpretation) and the Full Moon in the Spring month at the beginning of Spring, the **golden disc** also symbolizes the Sun in relation to the 32 golden points representing solar years, and the Sun in relation to the start of the solar year at the Spring Full Moon. Via its width, the **lunar crescent** near the Pleiades (the rosette) directly indicates the leap signal and, together with the 32 golden points and the golden disc, symbolizes the 33 lunar years, that correspond to the 32 solar ones. The rosette representing the Pleiades shows, as Schlosser explained, exact dates in Spring (with the Crescent Moon) and in Autumn (with the Full Moon). And on the other hand, it triggers, together with the wide lunar crescent, the leap signal in the lunar calendar.

This interpretation explains the number of golden points, the meaning of the golden disc, the width of the lunar crescent and why the lunar crescent is larger than the golden disc. If the Star Disc was used as a pictorial comparison of the width of the real Crescent Moon in the Spring month by the Pleiades, then the latter is the deciding object on the Disc and was made bigger than the golden disc.

In an era when no numerical intercalary rules were yet available, any celestial observations would have needed to reconcile the lunar and solar motions. The calendar was only regulated by these observations. In its time, this knowledge was very beneficial and can be considered as the Bronze Age hi-tech know-how. An obsession with such complexities need not astound us.

Whether this knowledge emerged locally or from as far a field as Mesopotamia, remains open. The clues on the encrypted world view and the rosette shape mentioned earlier however do not exclude a possible Mesopotamian origin and are in fact supported by this interpretation.