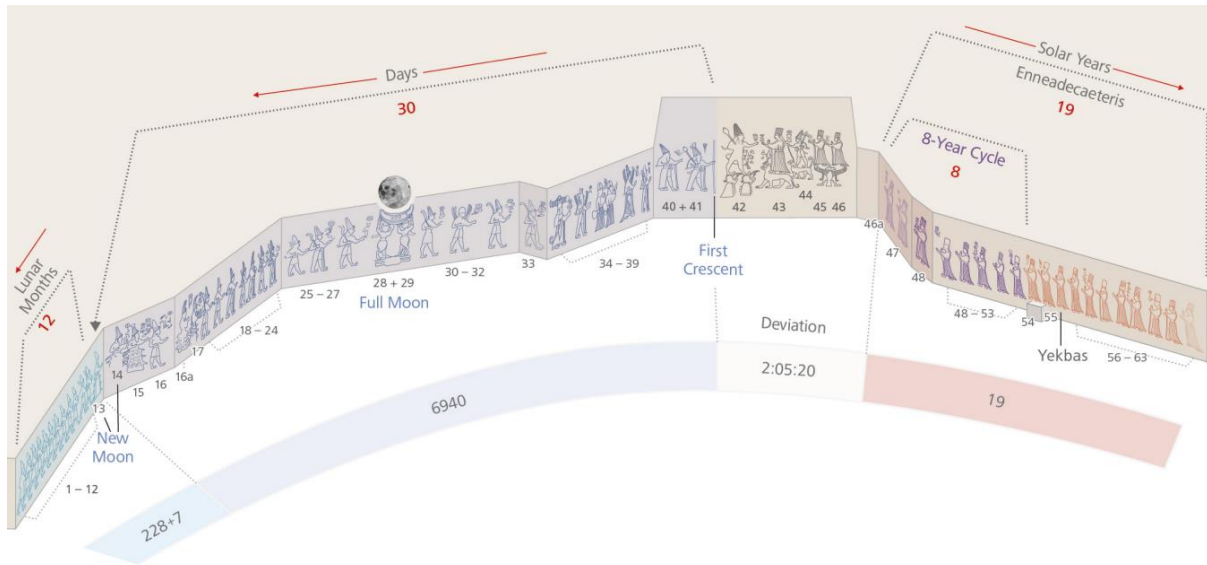
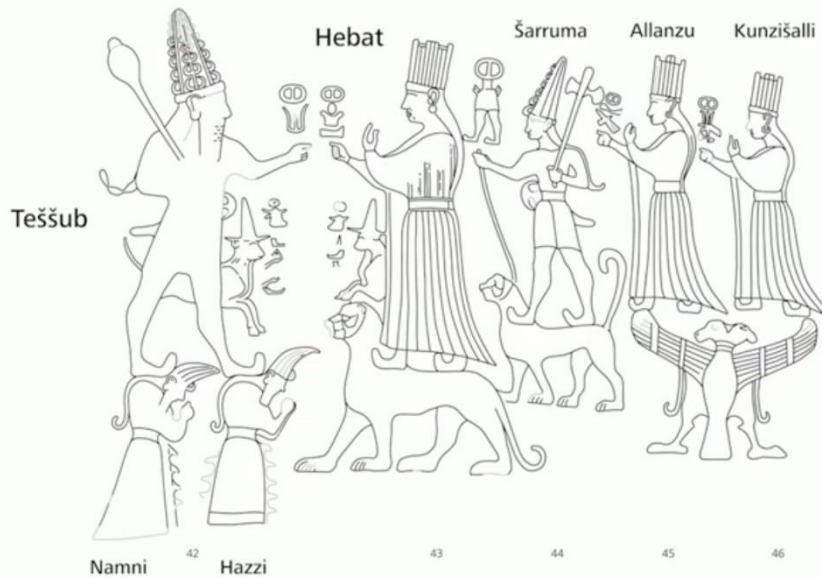


# The Metonic Cycle



The reliefs of Deities in Chamber A can be arranged in groups in accordance with astronomic principles marking out the solar and lunar calendars: 12 months; 30 days; "climactic group"; as well as a 19-year cycle (Enneadecaeteris), including an 8-year cycle (Octaeteris).

Yazılıkaya, Chamber A, Climactic Scene



The Metonic Cycle consists of nineteen times 12 lunar months plus 7 intercalary months (month insertions) to harmonise the inaccuracy, which equals 235 synodic months or 6,940 days. This cycle deviates by 2 hours 5 minutes and 20 seconds from nineteen solar years. It does not match the Solar year. This means that if 7 extra lunar months were added to 19 lunar years with 12 lunar months each, a certain celestial timetable, including the Sun, Moon and fixed stars repeats itself. The lunar phase of the first day of the 20th year was therefore almost exactly the same as it had been 19 years previously. That is a 3% margin of error and was corrected using other observational mechanisms in the sanctuary.