## הַיוֹם בַּאֲשֶׁר קוֹמַם יֵשׁוּטַ

## הַמָּשִׁיַח מִן־הַמֵּתִּים



The Resurrection Day Of Messiah Yeshua<br>When It Happened<br>According To The Original Texts

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vantage point it appears to rise in the sky by $6.4^{\circ}$. The scripture thus reads:

Then was still the sun, and the moon stood up until the nation avenged themselves of their enemies" (Josh. 10:13).

Two different verbs are used in this text, one for the sun, and another for the moon. The sun was "silenced," or "stilled" (ידּם), and the moon "stood up" (עָמַדך). It also says the sun "stood in the middle
 "in the middle of the heavens," whereas of the moon it simply says, "it standeth." The sun did not move from the meridian. The moon stood up $6.4^{\circ}$ degrees in altitude.

Figure 81: The moon standeth; the sun stands


It is a necessary consequence that if the sun is standing still on the meridian line that the moon stands up (עָמָדך) in altitude. This is because only the motion of the sun relative to the earth stopped. All other celestial motions continued. From a heliocentric point of view the earth's rotation stopped with the sun over Gibeon. However, the moon continued in its celestial motion, which in this case was mostly up and hardly a noticeable change in azimuth.

Now how did they know that the time the sun stopped was a perfect day? Because with a simple sextant, the moon's rise could be measured to $6.5^{\circ} \pm 30^{\prime}$. Modern sextants are capable of measuring $1^{\prime}$ arc minute $\left(1 / 60^{\circ}\right)$. A simple 14 inch sextant would gradate a half degree every $1 / 8$ inch. Outfitted with a string and plumb weight, an Israelite astronomer could determine that the moon rose $6.5^{\circ} \pm 15^{\prime}$. The sidereal period of the moon was known to be 27.3 days by watching the moon return to the same star in 27.3 days. This means
that the moon must average $360^{\circ} / 27.3=13.19^{\circ} /$ day, or in 12 hours $13.19^{\circ} / 2=6.6^{\circ}$. Thus a $6.5^{\circ} \pm 30^{\prime}$ measurement of the moon would show that the sun had stopped for twelve hours.

Figure 82: Simple Sextant


To interpret Joshua's long day we say the sun stood at zenith over Gibeon for twelve hours. In celestial mechanics point of view is relative. One can choose any observation point and come up with a system of mathematics to describe motion from that point of view. In fact, most planetarium software simulates everything with the earth as a stationary point. It is easier to compute Kepler's equations from the solar point of view, but the fact that a coordinate transformation can be performed shows that it is just a matter of pure mathematics to change the point of view. It is thus equally correct to say the sun stood over Gibeon as to say that the earth stopped rotating for twelve hours (with respect to the sun). It all depends where one is fixing their observation point.

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