Re: Earth Deceleration theory likely a farce

Source: http://sci.tech−archive.net/Archive/sci.astro.amateur/2009−01/msg00619.html

- *From*: "Greg Neill" <gneillRE@xxxxxxxxxxxxxxx>
- *Date*: Sun, 18 Jan 2009 11:06:44 −0500

Moshiachyozif wrote:

> "Greg Neill" <gneillRE@xxxxxxxxxxxxxxxx> wrote in message
> news:4972c58b$0$23013$9a6e19ea@xxxxxxxxxxxxxxxxxxxxxxx
>
> > Moshiachyozif wrote:
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> > > "Greg Neill" <gneillRE@xxxxxxxxxxxxxxxx> wrote in
> > > message
> > > news:4972364d$0$23000$9a6e19ea@xxxxxxxxxxxxxxxxxxxxxxx
> > >
> > > > Moshiachyozif wrote:
> > >
> > > But I don't believe that their "hours" were uniform in length.
> > > Uniform hours was a concept that came in, I believe, only after
> > > the introduction of mechanical clocks in the middle ages.
> >
> > Well, your cultural bias is showing. The Egyptians as early as the
> > Amarna Period had a concept of the hour as determined by atomic clocks,
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> Atomic clocks in 1350 BC? Surely you jest.
>
> > and particularly in astronomy was this a consistent reference. The
> > Egyptian day began at midnight just as it does now and each period from
> > midnight to noon was divided into 12 hours each. Water clocks were used
> > to measure the "hours." So that's one reference.
> >
> > A second one is in this case a confirmation of how long the hour was.
> > First, the actual "language" used is "1−2/3 double hours" which calculates
> > out to 3 hours and 20 minutes if we presume 60 minutes per hour. But
> > the precise time of the ecilpse is provided by Ptolemy which states this
> > eclipse occurred "one hour before midnight." So we know from a separate
> > reference with 1−2/3 "double hours" actually occurred. So all we have to

> do is determine that length of time in relation to when "night" begins

which

> is a division of the night following sunset. That is, the 1−2/3 double hours
> are timed "after night" but not after sunset. The Babylonians rounded to 4 minutes. So sunset was at 7:09. I we introduce 32 minutes for the beginning of night then add 3:20 we get 11:01 for this eclipse. So it is pretty much confirmed that the "hour" in reference is 60 minutes, IN THIS CASE. So at this point we wouldn't presume the Babylonians were not capable of measuring the hour by various means, including water clocks,

and

> that that technique was not standard during this time since astronomers of Assyria, Babylon, Persia and Egypt were often sharing expertise in this regard. In fact, during the Seleucid Era most royals and many high

ranking

> officials were sent to Egyptian universities. Even Thales did a 7−year apprenticeship in astronomy in Egypt. So the concept of the 60−minute "hour" is at least as old as New Kingdom Egypt. Further, the Babylonians had references of minutes as well. So the hour definitely was 60 minutes. So, the hour was exactly the same and non varying: 60 minutes, especially

in

> practice for the astronomers.

The Babylonians used the motion of the constellations at night to track time, assigning about 30 degrees or two hours to each sign. The length of time spent in each constellation would vary throughout the nights of the year, although for Babylon, being relatively close to the equator, this would not pose great problems.

It was, I believe the Greeks that first proposed the use of equal length hours in order to support the mathematics of predictive calculations (as opposed to simple period multpliers). Hipparchus proposed dividing the day into 24 equal hours (called equinoctial hours, because days and nights are of equal length on the equinoxes). It wasn't until the introduction of mechanical clocks that equal length hours became commonplace for ordinary use.

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