Everyone may be joyous!

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*THE CRITIQUE of GARY THOMPSON

CONCERNING THE 5,500 BC DATING

of THE ASTROLABE*

(This concerns the criticism that Gary Thompson put in his WEB SITE http://members.westnet.com.au/gary-david-thompson/page9e.html)

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As told by Rumen K. Kolev, the 16th of Simanu, 2011 (19th of June).

In his WEB Page,

http://members.westnet.com.au/gary-david-thompson/page9e.html ,

Gary Thompson put up in the Internet space his criticism on my dating of the Astrolabe to 5,500 BC.

[My dating of the Astrolabe to 5,500 BC is based on my research of the path-positions of the stars in the Babylonian Astrolabe. The research is now in print at Max Planck Institute, Berlin and will appear in the volume of the MELAMMU VI symposium hopefully later in 2011. Many relevant materials in PDF, you can download from my own WEB: www.babylonianastrology.com .]

Here, I will deal shortly with his criticism.

First, I'd like to clear some misunderstandings.

Gary Thompson quotes me as having said:

"The first coordinate system going back to 5,500 BC [± 300 years] was an equatorial system consisting of 3 circles-paths each divided in 12 sections."

This is not true. It is not that simple !

I think, that the first coordinate system going back to 5,500 BC was probably not what we are accustomed to today, but rather something fitting in the life-style and mind-set of the ancients.

It must have been a coordinate system in space and time. The year as a time-period was divided in 4 and each section was further subdivided in 3, resulting in 12 months. The 12 months were tied to the equinoctia and solstitia. Each month was known by 3 constellations which rose heliacally during that month. These 3 constellation (for every month) rose from North, Center and South of the horizon and respectively they belonged to Enlil (North), Anu (Center) or Ea (South).

The calendar and the coordinate system of the ancient Mesopotamians were a system of images (of constellations in heliacal phases) correlated with (in) time and space. The purpose was to know where in the solar cycle they were at any given moment.

Then Thompson writes:

The core of Kolev's technique is simply to look for the common period when all the stars (or at least maximum numbers) are in their deemed path/way. …….

Kolev claims that circa 5,500 BCE is the date when the Path positions of the 36 month-stars in the Astrolabes are correct. ……

This is true.

But this is not 'my technique'. Many scholars in Babylonian Astronomy who analyzed the Astrolabe have done the same thing (Schaumberger, Pingree, van der Waerden). The difference is that these scholars have made computations only for the period 2,000 BC to 500 BC. I did computations for 10,000 BC to 10,000 AD.

Gary Thompson:

how the planets and circumpolar constellations are dealt with is unknown

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The 5 planets and the 3 circumpolar constellations that are in the Astrolabe, cannot stop our analysis of the remaining 28 constellations (as it did not stop also neither Schaumberger, nor Pingree, nor van der Waerden. They made their analysis and published their results. I do the same.)

Gary Thompson:

As has already been brought forward, how reliable are the identifications of the objects in the list with actual stars? And how sure can we be that it is actually the kind of list that we think it is? Also, any systematic deviation will lead to a (large) error in dating this way - for instance, for what latitude was it made?

The analysis in my study is made with star-identifications in four different models of the Astrolabe belonging to Pingree David, Schott Albert, van der Waerden and myself.

It is made also for 4 different latitudes, from Eridu to Nineveh. (The latitude has very negligible effect on the results)

The research is made for the period -12,000 to +12,000.

All results point to the same date 5,500 BC +-300.

The model is robust (statistically).

Gary Thompson (quoting someone else from an internet discussion forum):

- You always get a best match, however poor it actually is.

As a statement this is true.

However, the match that was found between the path-positions of the stars in the Astrolabe and their ACTUAL position in 5,500 BC (+-300) is extremely significant. This is discussed in detail in my forthcoming article in Melammu VI.

Gary Thompson :

The nature and widths of the Paths of Enlil, Anu, and Ea still continues to create some uncertainty.

My research was done on two different models of the 'paths'. The model of Pingree-Reiner (azimuthal) and the model of Schaumberger-Kopff (declinational).

No matter what model of the 'paths' we use, we will end up with the same result: 5,500 BC.

Gary Thompson (quoting someone else from an internet discussion forum):

If another model finds an equally good match dating to ca. 25,000 years earlier than your dates, can we insist that the prehistoric inhabitants of Babylonia had devised the Astrolabe in question?

We do not need another model, because the path-positions of the stars in the Babylonian Astrolabe will be CORRECT at all moments which are:

5,500 BC + X*25,000

simply because after (or before!) one full turn of the precession (~25,000 years) all stars of the Astrolabe will go to the (overall) same position. (the proper motion will be a factor only).

Let me reply to this so:

-If after 3,000 years (in 5,000 AD) someone finds a celestial MAP from our time, 2,000 AD and then correlates the actual stellar positions (computed for +-50,000 years) with the positions of the stars in this MAP, what would be his/her conclusion ?! Will they say that the MAP is from 2,000 AD or from 23,000 BC or from 48,000 BC ?! Or maybe from the future (27,000 AD) ?

Then at different places, Gary Thompson criticism is based on

1. doubts that the positions of the stars in the Astrolabe really meant their heliacal rising.
2. doubts that the path-positions of the stars in the Astrolabe (and in MUL.APIN) were astronomically derived.
3. The fact that (until now) there is no written evidence of the Astrolabe before 1300 BC and that the time-period of 4,000 years (from 5,500 BC to 1,300 BC) is too big for a successful transmission.

To all these I have one answer:

If anything from the above was true then we would not get such statistically pronounced results from our research on the path-positions of the stars in the Astrolabe (and MUL.APIN).

If anything from the above was true then we would get a CHAOTIC pattern.

If the Astrolabe was not an astronomical text, then its model would be a random model.

In a RANDOM model of the Astrolabe (with 27 stars and 3 paths), the MEAN of the number of stars in their CORRECT Astrolabe path would be around 9 for any time-period and would randomly go up or down moving between 4 and 13.

The results I get are different.

25 stars (from 27) are in their correct Astrolabe path in 5,600 BC to 5,300 BC.

24 stars (from these same 27 stars) are in their correct MUL.APIN path in 1,300 BC to 500 BC.

These results are as powerful as only Mathematics can be!

Anything and everything can be proven false,

except the eternal truths of Mathematics.

Yours in truth: Rumen K. Kolev, the 19th of June, 2011, Varna