

## David (Bethlehem) star

P.A.Semi, 2014-02-12  
(Author's translation from Czech original)

Planet configuration of David Star happens time by time...

We list here the most bold occurrences in antiquity period, with the center on Earth or on Sun, sorted chronologically, and various events, that happened approximately in those times.

The most precise David star happened in the year 586 BC, when the Jews left to the Babylonian capture. Other bold ones have been for example when King David started rule, when building the Jerusalem temple, when the Kingdom of Judah was established after split of the united monarchy, by the end of Bar Kokhba revolt and others...

The biggest area below the curve, and also the best simultaneity of this star on Earth and on Sun, happened on the year 3 BC.

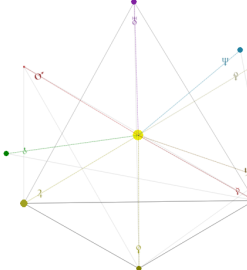
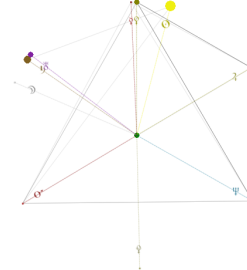
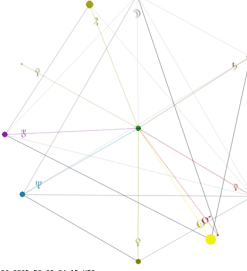
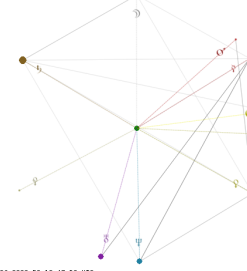
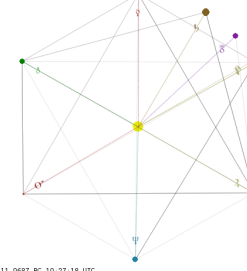
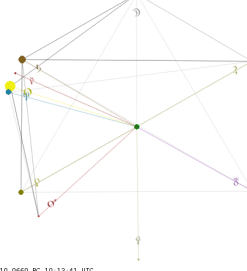
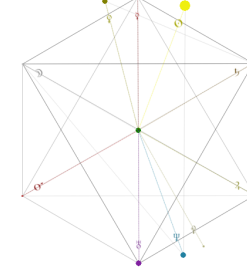
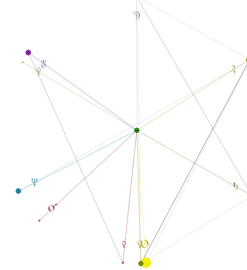
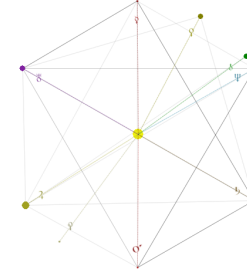
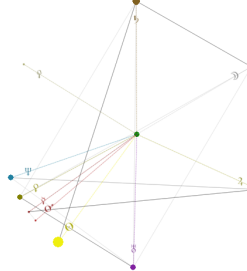
At the autumn 3 BC there was the only found occurrence of that star around Sun, in which there were included all the planets. Just before Christmas 3 BC there was the David star with out-standing Sun, Jupiter and Mercury, the sign, which could justly be considered by the μάγοι from the east as the sign of the birth of Godly and magic king of Israel. If the Bethlehem star was some visible phenomenon on the sky or on the ground above Bethlehem, they would have got no reason to go asking Herod in Jerusalem first. They came to ask there, because their "stars" told them generally in the symbolic level, and so they came to ask about the particular place, which was then read out from the manuscripts. Although this does not prove, that Jesus was really born on this date (although it is probable), it proves another very interesting thing - the existence of angels or other spiritual beings, that could reveal it onto them - because in this "star" there are included all the planets including Neptune and Pluto, which neither astrologers of those times nor of the following many centuries could not "see" by their technical means.

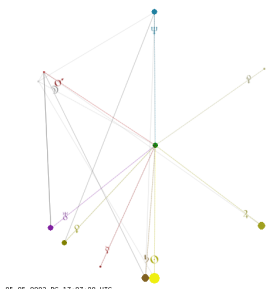
I absolutely do not think, that the mentioned events happened because of some planetary constellations, rather they have been probably set up in time on the occasion of these constellations. After all, the most important word of the Old Testament is ָוֵד - AD - the Witness (in the classical Hebrew edition this word is the only one printed in double size letters). Similarity with the Christian label A.D. is probably clearly random...

Planets, not used in the Star (marked as "standing out"), seem to specify its character.

On the following "maps" of planets, the central lines (in the color of the planet) are drawn always, and the grey lines between planets are only in the case, that there is an aspect (trine, sextile, opposition, conjunction, quadrature, quintile, biquintile or the golden angle) more precise than  $1^\circ$ , and a bold line if it is more precise than  $0.5^\circ$ .

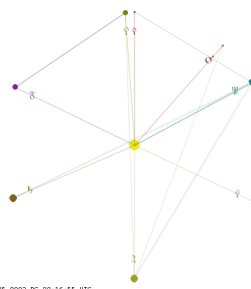
This text is intentionally rather brief and constricts to one aspect, which can be logically deduced and probably also proved, but it could be a key, which could open the door, so that the reason will not be in opposition to belief and spiritual insight, so that they can reciprocally support each other against unconcern...

 <p>15.04.1066 BC 23:38:59 UTC JD 1332171.48541</p>	<p>15.4.1066 BC</p> <p>Center - Sun Maximum - 821.5</p> <p>Standing out - Earth,Sat,Nep</p>	 <p>12.01.1006 BC 23:34:42 UTC JD 1353991.63360</p> <p>Center - Earth Maximum - 135.0 Ln-surface - 100.55</p> <p>Standing out - Sun,Moon, (Ven,Ura,)</p> <p>Start of the rule of king David.</p>
 <p>10.06.0935 BC 03:34:15 UTC JD 1380074.64880</p>	<p>10.6.0935</p> <p>Center - Earth Maximum - 452.87 Ln-surface - 29.73</p> <p>Standing out - <b>Sun,Jup</b>,Mars,Ura</p> <p>Possible start of construction of the Jerusalem temple, before the end of rule of the king Salomon ???</p>	 <p>26.06.0929 BC 19:47:59 UTC JD 1382283.32500</p> <p>Center - Earth Maximum - 323 Ln-surface - 36.45</p> <p>Standing out - <b>Sun,Jup</b>,Mars,Ura</p> <p>Establishment of the Kingdom of Judah after split of the united monarchy.</p>
 <p>11.11.0687 BC 10:27:18 UTC JD 1470810.93563</p>	<p>11.11.0687 BC</p> <p>Center - Sun Maximum - 1657.5</p> <p>Standing out - Sat,Ura(,Ven)</p> <p>King Manasseh starts to rule (he re-instituted pagan worship)</p>	 <p>16.10.0669 BC 10:13:41 UTC JD 1477359.92618</p> <p>Center - Earth Maximum - 1675.8 Ln-surface - 27.78</p> <p>Standing out - Sun,Nep,Mer,Mars</p> <p>Manasseh fights side by side with Assyria (Ashurbanipal)</p>
 <p>12.09.0586 BC 16:13:09 UTC JD 1507641.17580</p>	<p>12.9.0586 BC</p> <p>Center - Earth Maximum - <b>4501.4</b> Ln-surface - 40.39</p> <p>Standing out - Sun,Ven,Nep,Plu</p> <p>(absolutely most precise David star)</p> <p>Destruction of the first Temple, <u>Babylonian capture of the Jews</u></p>	 <p>20.05.0439 BC 01:52:52 UTC JD 1561217.57839</p> <p>Center - Earth Maximum - 214.7 Ln-surface - 97.25</p> <p>Standing out - Mer,Mars(,Ura,Sun)</p> <p>Finished construction of the Parthenon, located on Athens' Acropolis? Democritus discovers atoms...?</p>
 <p>01.04.0350 BC 19:34:10 UTC JD 1593676.31540</p>	<p>1.4.0350 BC</p> <p>Center - Sun Maximum - 755.09</p> <p>Standing out - Earth,Ven,Plu</p> <p>Aristoteles discovers sphericity of the Earth, Plato proposes the geocentric model...</p>	 <p>12.10.0032 BC 08:35:10 UTC JD 1710019.85776</p> <p>Center - Earth Maximum - 83.49 Ln-surface - 158.84</p> <p>Standing out - Sun,Mer,Mars,Nep</p> <p>???</p>



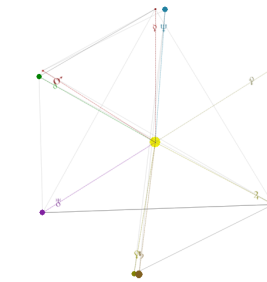
05.05.0003 BC 17.07.09 UTC  
**JD 1720452.21353**

5.5.0003 BC  
 Center - Earth  
 Maximum - 23.58  
 Ln-surface - **259.98**  
 Standing out -  
 Mer,Ven(,Mars,Sat)



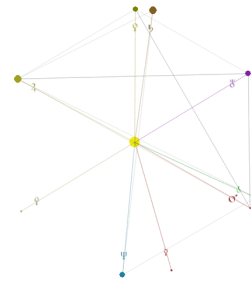
05.05.0003 BC 22.16.55 UTC  
**JD 1720452.42841**

5.5.0003 BC  
 Center - Sun  
 Maximum - 37.84  
 Standing out -  
 Mars(,Ven,Earth)



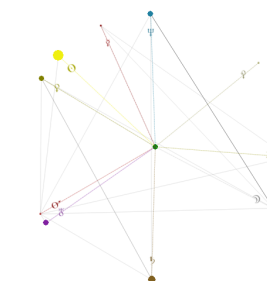
13.07.0003 BC 18.41.50 UTC  
**JD 1720521.27906**

13.7.0003 BC  
 Center - Sun  
 Maximum - 51.78  
 Standing out -  
 (Ven,Mars,Nep)  
The only one found, which  
 contains all the planets...



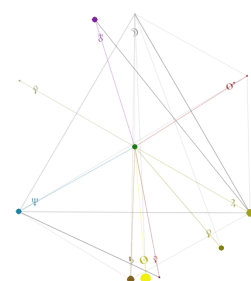
19.07.0003 BC 22.46.12 UTC  
**JD 1720527.44876**

19.7.0003 BC  
 Center - Sun  
 Maximum - 99.19  
 Standing out - Mer(,Sat,Ear)



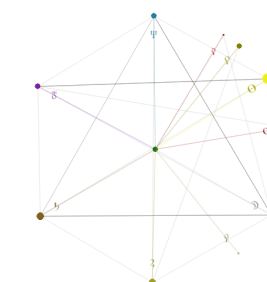
23.12.0003 BC 06.02.38 UTC  
**JD 1720683.71474**

**23.12.0003 BC**  
 Center - Earth  
 Maximum - 42.69  
 Ln-surface - **259.98**  
 Standing out -  
**Sun,Jup,Mer(,Ura)**  
 Bethlehem star,  
 probable date of birth of  
Jesus Christ...



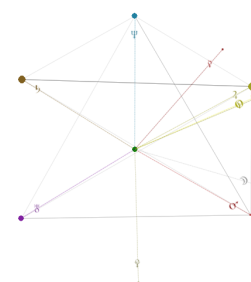
26.05.0058 05.26.40 UTC  
**JD 1742387.72686**

26.5.0058  
 Center - Earth  
 Maximum - 363.33  
 Ln-surface - 243.25  
 Standing out -  
 Ven,Ura(,Mer,Sun)  
 ???



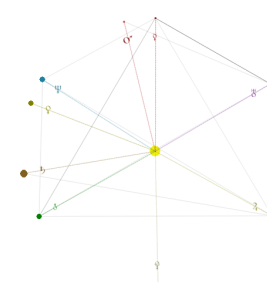
11.07.0136 13.00.22 UTC  
**JD 1770924.04193**

11.7.0136  
 Center - Earth  
 Maximum - 420.91  
 Ln-surface - 61.31  
 Standing out -  
 Mer,Ven,Mars,Plu  
 End of Bar Kokhba revolt  
 (Definitive) end of jews in  
 Israel, burning of texts,  
 slaying of sages.



08.09.0166 16.18.08 UTC  
**JD 1781940.17926**

8.9.0166  
 Center - Earth  
 Maximum - 328.69  
 Ln-surface - 247.93  
 Standing out -  
 Mer,Moon(,Ven,Sun)  
 ???  
 Roman envoy in China,  
 defeated Armenia and  
 Mesopotamia became  
 Roman colonies ???



08.01.0738 04.50.26 UTC  
**JD 1990619.70169**

8.1.0738  
 Center - Sun  
 Maximum - 371.90  
 Standing out - Ven,Mars,Sat  
 ???

## Mathematical definition

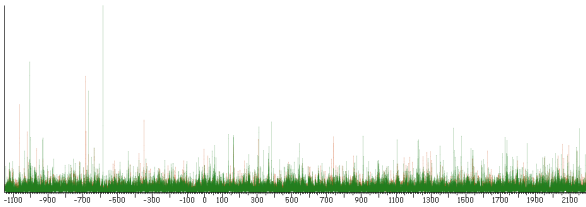
Mathematical function for searching the David stars in the planet configurations around the center C at time t is defined such, the when placing one planet to the apex of the star, the function returns inverse of the sum of squares of differences (in radians) of the nearest planet from the respective apex of the star. That combination (first apex) is selected, which gives the maximal value.

$$\text{Maximum} = = \frac{1}{\Delta \star_{Ct}} = \frac{1}{\sum_{(\nabla \uparrow]} \alpha^2}$$

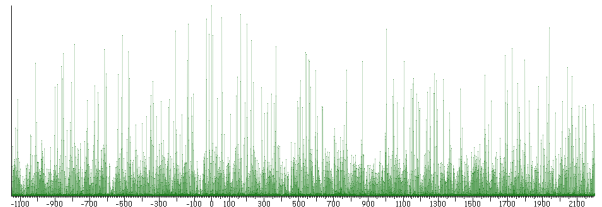
Ln-surface below the curve is defined as a sum of daily values of the natural logarithm of the square roots of the noon value of  $1/\Delta \star_{Ct}$  (inverted David star difference), or possibly the maximal value of that day, if there is a local maximum of the function in this day, during the period, when this logarithm is positive.

$$\text{LnSurface} = = \int_{\text{day} +} \ln \sqrt{\frac{1}{\Delta \star_{Ct}}}$$

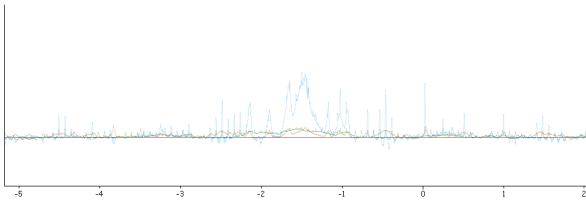
Owing to the displayed period, all dates are marked in the proleptic julian calendary (in the table near the end there is used the Gregorian calendary after the year 1582). For the case of uncertainty there is marked also the JD(Julian Day) value. If there is a contradiction of the JD and date, the JD value is more precise...



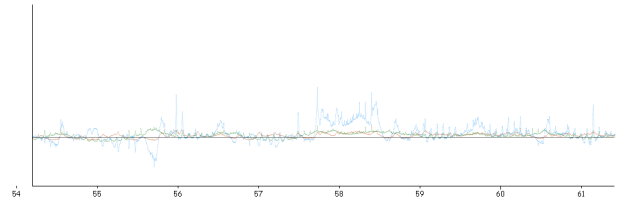
Function of the square root of the "value" of the David star in the recent history. Green color is for the center on Earth, orange for the center on Sun. On this image, the maximum values are visible.



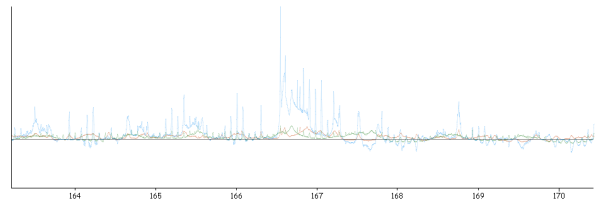
Integrated surface below the curve of the natural logarithm of the square roots, only for the Earth...



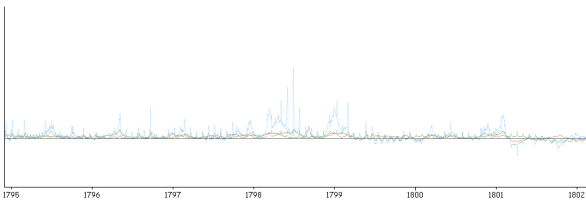
This chart and the following are showing the value of the natural logarithm of the square roots of the function of the David star on Earth (green), on Sun (orange) and their multiplication product (blue). On the year 3 BC (year -2) there was not only the biggest area below the curve for the center on Earth, but also (probably) the biggest area below the curve of their multiplication...



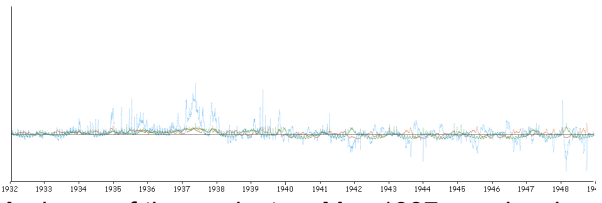
...



...



(One of examples of less distinct cases of the area below the curve, shown for comparison...)



Maximum of the product on May 1937, one local maximum of the Earthly value by the end of November 1941, one local maximum by the end of July 1945 on the Sun, one maximum on the Earth just after the end of February 1948, all of them not much bold...

**Table of occurrences of the most bold David stars, sorted by the area below the curve**  
(with a value >150, for the last 3000 years)

Center of period and integral of the values	Interval of dates (JD)	Interval of dates
JD 1720483= <b>259.981</b>	1720200 .. 1720766	cca 08/0003 BC .. 03/0001 BC
JD 1782063=247.934	1781769 .. 1782358	21.03.0166 20:02:31 .. 31.10.0167
JD 1742342=243.251	1742051 .. 1742634	23.06.0057 .. 27.01.0059
JD 1709652=242.166	1709360 .. 1709944	cca 12/0033 BC .. 07/0031 BC
JD 1795423=235.172	1795116 .. 1795731	05.10.0202 .. 11.06.0204
JD 1672309=234.604	1671829 .. 1672790	cca 03/0135 BC .. 11/0133 BC
JD 2428666=229.792	2428400 .. 2428933	19.08.1936 .. 03.02.1938
JD 2087838=228.344	2087532 .. 2088145	09.05.1003 .. 11.01.1005
JD 1645510=225.434	1645067 .. 1645953	cca 12/0209 BC .. 05/0206 BC
JD 1715832=221.631	1715564 .. 1716101	cca 12/0016 BC .. 06/0014 BC
JD 1533459=219.792	1533020 .. 1533898	cca 03/0515 BC .. 08/0513 BC
JD 1722810=219.521	1722503 .. 1723118	16.12.0003 .. 22.08.0005
JD 1803946=212.737	1803652 .. 1804240	17.02.0226 .. 28.09.0227
JD 1433322=207.043	1432815 .. 1433830	cca 11/0790 BC .. 08/0787 BC
JD 1856196=203.990	1855919 .. 1856474	25.03.0369 .. 01.10.0370
JD 2351494=201.188	2351195 .. 2351793	02.04.1725 .. 21.11.1726
JD 1495955=200.393	1495530 .. 1496380	cca 07/0618 BC .. 11/0616 BC
JD 1546615=196.839	1546176 .. 1547055	cca 03/0479 BC .. 08/0477 BC
JD 1918683=195.959	1918406 .. 1918961	23.04.0540 .. 30.10.0541
JD 1410198=194.288	1409773 .. 1410624	cca 10/0853 BC .. 01/0850 BC
JD 1919376=193.543	1919112 .. 1919640	30.03.0542 .. 09.09.0543
JD 2336723=191.785	2336411 .. 2337036	09.10.1684 .. 26.06.1686
JD 2377946=186.078	2377637 .. 2378255	24.08.1797 .. 04.05.1799
JD 1924860=185.964	1924582 .. 1925139	21.03.0557 .. 29.09.0558
JD 1669834=185.371	1669553 .. 1670115	cca 12/0142 BC .. 07/0140 BC
JD 2037250=184.396	2036913 .. 2037587	06.10.0864 .. 11.08.0866
JD 1925650=183.960	1925369 .. 1925931	17.05.0559 .. 29.11.0560
JD 2124555=183.835	2124229 .. 2124881	28.10.1103 .. 10.08.1105
JD 1351495=182.013	1351133 .. 1351858	cca 03/1013 BC .. 03/1011 BC
JD 1405465=177.023	1405196 .. 1405734	cca 03/0865 BC .. 09/0864 BC
JD 2467642=175.503	2467320 .. 2467964	11.03.2043 .. 14.12.2044
JD 2004410=172.451	2004159 .. 2004662	02.02.0775 .. 19.06.0776
JD 1938892=170.943	1938622 .. 1939163	30.08.0595 .. 20.02.0597
JD 2187666=167.282	2187374 .. 2187959	14.09.1276 .. 22.04.1278
JD 1499044=166.709	1498778 .. 1499311	cca 06/0609 BC .. 11/0608 BC
JD 1524702=166.183	1524409 .. 1524996	cca 08/0539 BC .. 03/0537 BC
JD 2293697=164.860	2293385 .. 2294009	12.12.1566 .. 27.08.1568
JD 2476356=163.811	2476004 .. 2476708	19.12.2066 .. 22.11.2068
JD 2424057=163.101	2423764 .. 2424350	10.12.1923 .. 18.07.1925
JD 1775210=162.382	1774916 .. 1775504	16.06.0147 .. 24.01.0149
JD 2144007=161.177	2143753 .. 2144261	11.04.1157 .. 01.09.1158
JD 1548178=160.735	1547913 .. 1548444	cca 12/0475 BC .. 05/0473 BC
JD 1408539=159.795	1408285 .. 1408793	cca 09/0857 BC .. 01/0855 BC
JD 2206440=159.370	2206193 .. 2206688	24.03.1328 .. 01.08.1329
JD 2102734=158.987	2102471 .. 2102997	02.04.1044 .. 10.09.1045
JD 1710318=158.837	1710057 .. 1710579	cca 11/0031 BC .. 04/0029 BC
JD 1906845=157.591	1906538 .. 1907152	26.10.0507 .. 01.07.0509
JD 2192376=157.543	2192070 .. 2192683	24.07.1289 .. 29.03.1291
JD 1597248=156.354	1596985 .. 1597511	cca 04/0340 BC .. 10/0339 BC
JD 1781369=156.320	1781092 .. 1781647	13.05.0164 .. 19.11.0165
JD 1808606=154.716	1808279 .. 1808933	19.10.0238 .. 03.08.0240
JD 1427338=154.618	1427041 .. 1427635	cca 01/0805 BC .. 08/0804 BC
JD 2362393=153.968	2362125 .. 2362661	06.03.1755 .. 23.08.1756
JD 2143252=152.931	2142960 .. 2143545	09.02.1155 .. 15.09.1156
JD 1397548=152.707	1397284 .. 1397812	cca 07/0887 BC .. 01/0885 BC
JD 1475580=150.876	1475303 .. 1475857	cca 03/0673 BC .. 09/0672 BC

## References

For finding the positions of planets, the JPL ephemerides DE422 are used.

Events for the dates are adopted from english wikipedia, possible difference probably should not exceed the uncertainty in dating that event...

Remark: yes, it is a kind of prank, but I think it has got it's place here... The equations are somehow nice even Symbolically...