

Obseq. $23^{\circ} 55'$
 as 129.
 in = 23
 take $23^{\circ} 44' = 50''$ from it.
 as $50'' = 23.55$

long. of spec in 1750	6. 20. 21
" " " " " "	6. — —
begin of stand. γ in 1750	20. 21
Precession for Paracora +	23. 20
" " " " " "	<hr/>
" " " " " "	43. 41

What at $50''$ a year gives
 3145 years from Paracora to 1750.

3145 - 1750 = 1395 years B.C. when Paracora
 lived. - 3145 + 59 = 3194 years from Paracora to
 1750 instead of 2970 as computed by Sir W. Jones
 3194 - 2970 = 224 years Sir W.'s error. -

In 2627 years before the commencement of A.D. 1690 the height of the
 Celestial by Snijper's tables will be $23^{\circ} 48. 54$ —

$\frac{1750}{1690} = \frac{2627}{6}$
 $\frac{6}{2687} = \text{before 1750.}$

21.°. 11. min	When Surya short of Lanka { Durron Isstra — four angles short of that or short of Lanka —————	5.°
		9.°
	Shabrobin Ocean	3.°
	when short of Lanka	
	at lower when short of Lanka — short of Sun.	7.°

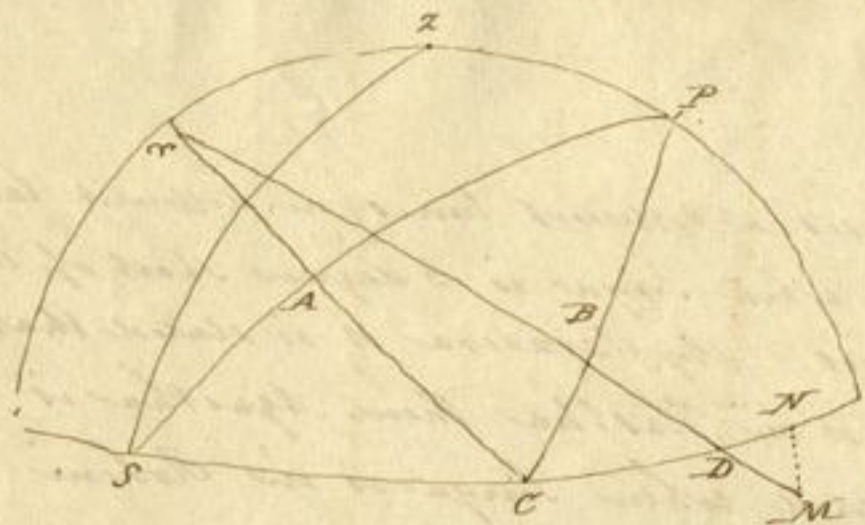
Lat. of Sun $24^{\circ} 53'$
 from Burrow.

Agastha rises at different times in different latitudes
 At Ouzim when Surya is 5 degrees short of Canya
 Agastha rises. By Parasara it is stated that "when
 " ^{Surya} Agastha is in Hastha then Agastha is seen by
 " mortals. and when Surya is in Rohini Agastha
 " sets or disappears. -

To explain this passage of Parasara enquiring
 must first be made at what time of the year
 Canopus rises now* at Ouzim. The data are

1 st The arc of vision which for Canopus may be taken at	10. "
2 nd The present long. of Canopus in 1750. —	3. 11. 30. 39
3 ^d The declination of α . —	52. 34. 4
4 th The right ascension	94. 36.
5. The ascensional difference	
6. The latitude of Ouzim (from Hunter)	23. 11 N.

(* To save the trouble of computing the Right ascension
 and Declination for the present time I have taken
 the data out of the tables for the year 1750.)



Given $PZ = ACS = 66^{\circ} 49'$ the Latitude of Capricorn
 $AS = 52^{\circ} 34.4'$ the declination
 of AC the ascensional difference

Tang. $ACS = 66^{\circ} 49'$	10.3632963
Tang. $AS = 52^{\circ} 34.4'$	10.1160662
Rad.	10. —
Sine $AC = 34^{\circ} 1'$	9.7477699

This added to the right ascension gives the point
 of the Equator C rising with Capricorn —
 $94^{\circ} 36' + 34.1 = 128^{\circ} 37' = \angle C$.

Required next the correspondent point of the
 ecliptic D , rising with S and C . Just there is
 in the right angled triangle $\angle BC$, right angled
 at C , given $\angle C$ and the angle $\angle =$ obliquity of
 the ecliptic, to find $\angle B$, but $\angle C$ being more

than a quadrant take its complement to the next
 equinoctial point $(180 - 128.37 =) 51.23'$ and in the
 supplementary triangle $C \hat{=} B$ now be given $C \hat{=} =$
 $= 51.23'$ and the angle $\hat{=} = 23.28'$ to find $B \hat{=} =$

B	Cosine $\hat{=} = 23.28'$	9.9625076
C	Rad. —	10. —
	Tang. $C \hat{=} = 51.23'$	10.0975805
	Tang. $B \hat{=} = 59.46'$	10.1350729

This taken from a semicircle ($\angle B$) leaves $\angle B = 126.14'$
 the point of the ecliptic B or the longitude of that
 point of the Equator (C) which rises with Capricorn.
 Next for BD the remaining portion of the ecliptic
 to be found. There is given the angle C equal to
 the elevation of the pole 23.11 , the arc of declination
 BC may be discovered and likewise the angle BCD
 whence in the oblique triangle BDC the side
 BD may be found —

B	Rad.	10. —
C	Sine $C \hat{=} = 51.23'$	9.7920395
	Tang. $\hat{=} = 23.28'$	9.6376106
	Tang. $BC = 18.44'$	9.5304501



Rad	—	10. —
Sine	$\alpha = 23^{\circ} 28'$	9.6001101
Cosine	$C = 51^{\circ} 23'$	9.7952590
Cosine	$C B \beta$	9.3953771
	$\} 75^{\circ} 37'$	
	or $C B D$	

Rad	—	10. —
Cosine	$B C = 18^{\circ} 44'$	9.9763608
Tang	$C = 23^{\circ} 11'$	9.6317037
Cotang	$C B \beta = 67^{\circ} 49'$	9.6000625
		9.6102778
		7.42,

Whence $\beta B D$ is known $(75^{\circ} 37' - 67^{\circ} 49' =)$ $7^{\circ} 48'$

Cos $\beta B D = 7^{\circ} 42'$	9.9960663
Tang $B C = 18^{\circ} 44'$	9.5751356
Cosine $C B \beta = 67^{\circ} 55'$	9.5303661
Tang. $C B = 18^{\circ} 44'$	9.1055017
Tang. $B D = 7^{\circ} 20'$	9.1094354

$B D$ added to αB gives the long. of the point D coincident with the star at S and with the point of the equator C . $126.14 + 7.20 = 133.34$

Next to find the position of the ecliptic, $D M$ depressed 10° below the horizon with the Sun at M . There is given $M N = 10^{\circ}$ one side of the right angled triangle $D N M$

and the angle $M D N$ being equal to $C D B$ may be found.

Rad	—	10. —
Cosine	$B D = 7^{\circ} 20'$	9.9964330
Tang.	$\beta B D = 7^{\circ} 42'$	9.1309937
Cotang	$\beta D B = 82^{\circ} 22'$	9.1274267
	or $C D B$	



Sine	$N D M = C D B = 82^{\circ} 22'$	9.9461343
Sine	$M N = 10^{\circ}$	9.2396702
Rad	—	10. —
Sine	$D M = 10^{\circ} 5'$	9.2435359

Sum $\{ 126.14 + 7.20 + 10.5 = 143.35 \}$ the long. of the Sun when Capricorn rises heliacally at Ouzim in 1755 A.D.

(M. Benard Capricorn rises heliacally about the 19th August. The Venus was on the 3 B. horizon or 21 August.)

Next to find how Canopus rose at Buzem
at the time Parasura is supposed to have
lived - From that time to A.D. 1709 - 3073 years

*
*
*
3145 years

From that time to A.D. 1750 is - 3034
Precession 50" each year is 42. 8. 20

Long. of Canopus in 1750 3. 11. 30. 39
1. 42. 8. 20
Long. in Parasuras time 1. 29. 22. 19
Lat. 75. 57. 20 S

First find the Right Ascension - (78. -)
Declination (53. 15)



Rad.	10.	Rad.	10.
Sine long. 59. 22	9. 9347235	Cosine CAD 53. 57	9. 7707793
Cotang. lat. 75. 57	1. 4173265	Tang AC 82. 57	10. 9015540
Cotang BAC 77. 19	9. 3520500	Tang. R ^a Ascension 78. -	10. 6723933
BAC 77. 19 - 23. 28 = 53. 57 CAD			

Rad.	10.	Rad.	10.
Cosine long 59. 22	9. 7071201	Sine CAD 53. 57	9. 9071293
Cosine lat 75. 57	9. 3882101	Sine AC 82. 57	9. 9966096
Cosine AC 82. 57	9. 0953902	Sine Declination 53. 15	9. 9037389

Given PI = ACS = 66. 49 the Co Lat of Buzem
AS = 53. 15. the declination
RA = 78. - the R^a ascension

Find AC the ascensional difference etc. -

Tang. ACS = 66. 49	10. 3682963	Cosine Ω 23. 28	9. 9628076
Tang AS = 53. 15	10. 1268332	Rad.	10. -
Rad -	10. -	Tang. C Ω 67. -	10. 3721431
Sine AC - 35. -	9. 7585369	Tang B Ω 68. 43	10. 4096405
R ^a asc ⁿ 78. + 35. = 113. = $\angle C$		130. - 68. 43 = 111. 17 = $\angle B$	
100. - 113. = 67. = C Ω			

Rad.	10.	Rad.	10.
Sine C Ω 67. -	9. 9640261	Sine Ω 23. 28	9. 6001101
Tang Ω 23. 28	9. 6376106	Cosine C Ω 67. -	9. 5918780
Tang BC 38. 34	9. 9016367	Cosine CB Ω } 81. 3	9. 1919961
		or CBD	

Rad.	10.	Cosine β BD 9. 34	9. 9939170
Cosine BC 38. 34	9. 7931419	Cosine CB β 71. 29	9. 5018538
Tang. C 23. 11	9. 6317037	Tang. CB 38. 34	9. 9016422
Cotang CB β 71. 29	9. 5248456	Tang BD 14. 24	9. 4095702
CBD - CB β		$\angle B + \angle D$	
01. 3 - 71. 29 = 9. 34 = β BD		111. 17 + 14. 24 = 125. 41 = $\angle D$	

For the arc of the Ecliptic depicted below
the horizon.

Dist	10.	Sine CDB 80.44	9.9942950
Cosine BD 14.24	9.9061369	Sine MN 10.	9.2396702
Long β BD 9.34	9.2267004	Dist.	10.
Long β DB	9.2128373	Sine DM 10.8	9.2453752
in CDB 80.44			9.2396702

$$\begin{aligned} \alpha B &= 111.17 \\ BD &= 14.24 \\ DM &= 10.8 \\ \alpha M &= 135.49 \end{aligned}$$

24. Points of the Hindu Ecliptic corresponding
with this Long.



Purusha	42.8
Angura	19.22
<hr/>	
Point of Equinox in Parasurama	22.36

Point of the
Hindu Ecliptic } 158.25

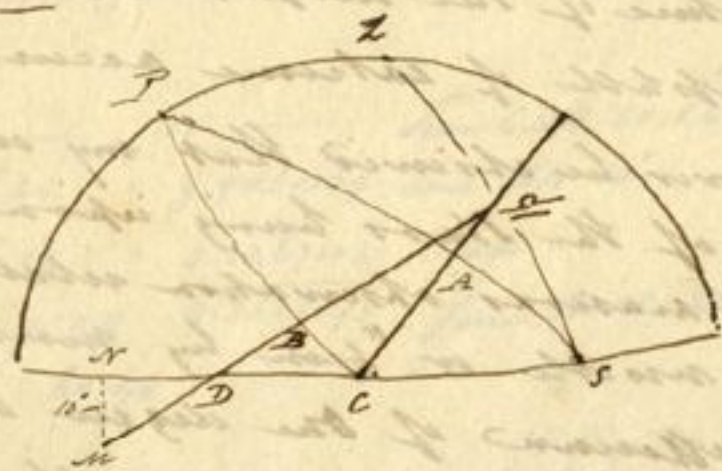
Uttarashadha is the 12th Nakshatra and
Kasta is the 13th —
13.20 x 12 = 160 —

$$\begin{aligned} 160 \\ 158.25 \\ \hline 1.75 \end{aligned}$$

Hence it appears that Canopus rose heliacally
at Ouzine 3073 years ago when the sun was within
1.35 of entering Kasta — what coincides with

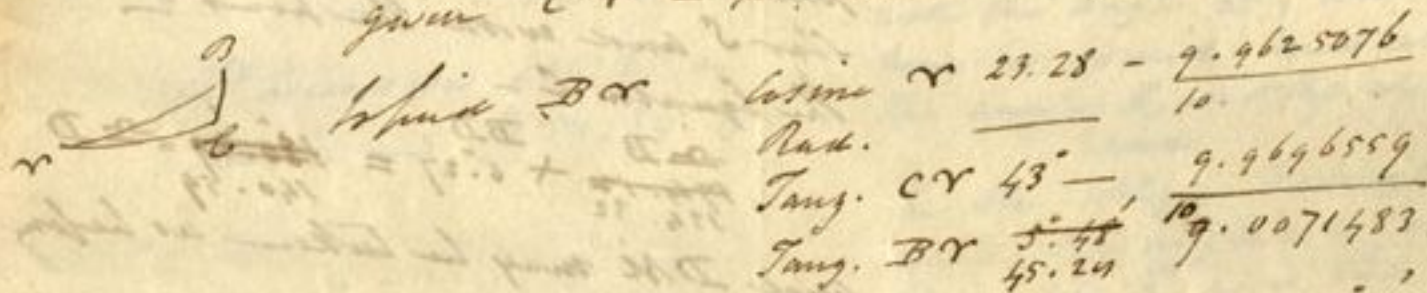
The Hindu account as nearly as can be expected
from the nature of the subject which certainly
is not susceptible of extreme accuracy. —
It may moreover be observed that my calculation is
in the time of the stars being upon the horizon
and that Parasurama's observation relates to the
stars being visible or "seen by mortals", and
that the difference of one degree or one day
may be no more than a reasonable allowance
to be made on that account.

How Canopus set heliacally in Perseus
Time. —



Right ascension of Canopus — 78°
 $\frac{35}{43}$
 Oblique ascension — 100
 $100 - 43 = 137 = \angle C$

We have now $\angle C = 137^{\circ}$ and angle $\alpha = 28^{\circ}.28$ to
 find αB but $\angle C$ being more than a quadrant
 take its comp. to next equinoctial point $180 - 137 = 43^{\circ}$
 and in the supplement, triangle BAC now be,
 given $CV = 43^{\circ}$ and the angle $\alpha = 28^{\circ}.28$



Find BC cosine $\alpha 28.28 = \frac{9.9625076}{10}$
 Rad. —
 Tang. $CV 43^{\circ} = \frac{9.9696559}{10}$
 Tang. $BC \frac{5.48}{45.29} = \frac{10.0071483}{10}$

This value from a semicircle (αB) leaves $\alpha B = \frac{174.12}{134.32}$
 the point of the ecliptic B which corresponds with
 the point of the Equator C. which sets with Canopus
 next for BD — then is given the angle $C 28.11$
 the arc of Declination BC may be discovered and like-
 wise the angle $\angle CBD$ whence in the oblique
 triangle BDC the side BD may be found.

Rad. —	$\frac{10.}{9.8337853}$	Rad. —	$\frac{10.}{9.6011001}$
Sine $CV 43^{\circ}$ —	9.6376106	Sine $\alpha 28.28$	9.4641275
Tang $\alpha 28.28$	9.4713939	Cosine $CV 43^{\circ}$	9.4642456
Tang $BC 16.29$	9.4713939	Cosine $\angle CBD$	9.4642456

Rad	10.		
Sin	16:29	9.9417744	
Cosine BC	77.4	9.4442770	
Tang. C	23.11	9.6317037	
Cotang CB	67.4	9.6134781	

Cosine β BD	6.24	9.9472850
Cosine CB	67.4	9.5797772
Tang CB	16.29	9.4711407
Tang BD	6.27	9.0536329

Whence β BD is known
 $(77.4 - 67.4 = 6.24)$

BD added to α B gives the point D descending with the Star S and with the point α the Equator C -

$$\frac{\alpha B}{174.12} \times 6.27 = \frac{108.7}{140.59} = \alpha D$$

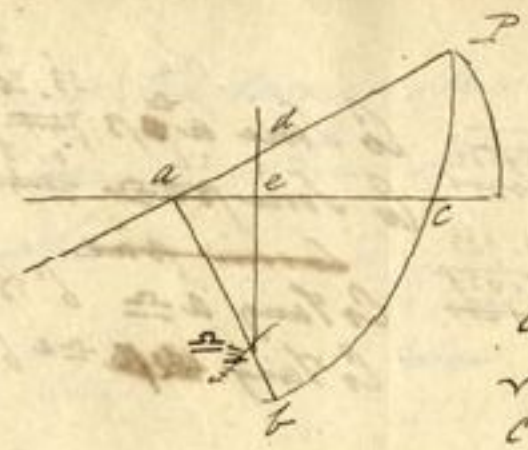
and DM may be taken as before

$$\frac{100}{100} \times \frac{39}{151.7} = \frac{25.7}{151.7} = \alpha M$$

This taken from a semicircle leaves the long. of M $100 - 151.7 = 28.53$ long. of the Sun when Canopus is heliacally

$$\frac{28.53}{22.36} = 51.39 \text{ long in Ptolemy's Ecliptic}$$

($13.20 \times 3 = 40.$) which corresponds with $11.39'$ of Rohini the 4th Prashatra



By flow D of the great bear rose in 1750. -

c - the Star
 α b - Right ascension
 cb - Declination
 α b - ascensional diff.
 In the \triangle angled triangle α b α , α b being known with the angle α , α d may be found - and also the angle α , and the side α d and

In the oblique triangle ade, the angle a = latitude the angle d and the side ad, de may be found and

$180^\circ - \alpha d + de =$ planet point of the ecliptic rising with the Star.

η in 1750 long. $5. 23. 24. 33''$
 Lat $54. 23. 45$
 N. ascension $204. 25. -$
 Dublin $50. 34. 11$


Tang Co Lat. 66.49	10.3602963
Tang. Co = Dublin. 50.34	10.0029253
Rad.	10
Sine ab. asc. diff. 31.23	9.7166290

$$\alpha b - \alpha \alpha = \alpha b$$

$$204.25 - 100 = 24.25$$

$$\alpha b. \frac{\alpha b.}{31.23 - 24.25} = \frac{\alpha \alpha}{6.50}$$

In the oblique triangle α ac, α a, α c and α ac (= co. lat being known α c may be found and $180^\circ (= \alpha \alpha) - \alpha c = \alpha e$, the point of the ecliptic required?



 And $\frac{10}{9.9987662}$

 Cosine $a = 6.54$ $\frac{10.3682963}{9.9987662}$

 Tang. $a = \text{colat. } 56.49$ $\frac{10.3650625}{9.9987662}$

 Cotang $a = \text{opp } 23.20$ $\frac{10.3650625}{9.9987662}$

~~$a \cos a + a \sin a = \text{opp}$~~





 $\frac{10}{9.9987662}$

 $\frac{10}{9.9987662}$

 $\frac{10}{9.9987662}$



173.36
 20.21
 $\frac{153.15}{173.36}$ Long. Hindu
 146.40
 $\frac{146.40}{6.35}$ of the 12. Naachatan

$13.20 \times 11 = 146.40$
 7.35 of the 12. Naachatan
Utra Phalguni
 Magha is the 10. —

112 23.20
 Co. Sine $a = \text{opp } 7.77$ $\frac{9.9629449}{10.9124499}$
 Co. Sine $b = \text{opp } 7.77$ $\frac{9.9629449}{10.9124499}$
~~Co. Sine $c = \text{opp } 7.77$~~
 Co Tang $a = 6.58$ $\frac{20.9129487}{10.9500038}$
 Co Tang $b = 6.24$ $\frac{20.9129487}{10.9500038}$

$100 - 6.24 = 173.36$ } The point
 By the globe $174. -$ } of the
 Ecliptic using
 with η —

$\frac{173.36}{19.21} = \frac{154.15}{\text{long. in the Hindu Ecliptic}}$

$13.20 \times 11 = 146.40$
 7.35 of the 12. Naachatan

Utra Phalguni

Magha is the 10. —

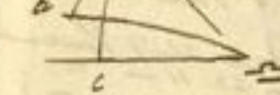
Q. How long the same star rose at Ouzema
 at the time when it is said Judashten
 flourished.

A. D. Cal. η
 $1750 = 4051$

how long it is since
 it was discovered by the
 when Judashten flourished
 2526 to the solar year expired.
 Solar began in the 3179 of the
 Cal. η .
 $3179 - 2526 = 653$ Cal. η . when
 Judashten flourished.
 $4051 - 653 = 4190$ years from
 that period to 1750.

Decurion $8.23.4$ for 10 years
 $10 : 8.23.4 :: 4198 : 58.39.17.13$
 Long. of η in 1750 = $\frac{173.24.33}{114.45.16}$
 Long. in 653 = $54.23.45$ N
 Lat.

Required the Right ascension and Declination



 $\frac{100}{100 - 114.45.16} = \frac{6.35.27}{65.16.44}$

 And $\frac{10}{9.9971260}$
 Cosine $a = 6.35.27$ $\frac{9.7651911}{9.7623179}$
 Cosine Lat $54.23.45$
 Cosine Hyp. 54.39
 And Cosine 70.32
 Cosine 70.32 $\frac{9.5227011}{10.1491392}$
 Tang 54.39 $\frac{10.6719203}{9.6719203}$
 Tang. Declin. 25.10
 $205.10 - \frac{100}{205.10}$



 $\frac{10}{9.9743559}$
 Sine 70.32 $\frac{9.9743559}{9.8859307}$
 Sine Hyp. 54.39
 Sine Declin. 50.9

Decl. ——— 10. ———
 sine $\approx a$ 65.14.44 9.9541543
 Cotang lat 54.23.45 9.4544704
 Cotang $\approx ab$ 56.58 9.8130247
 56.58 + 24 = 80.58

Decl. $\approx a$ 65.14.44 10. ———
 Cosine 80.58 9.6221357
 Cosine lat 54.23.45 9.7651911
 Cosine Hyp. 75.53 9.3873262

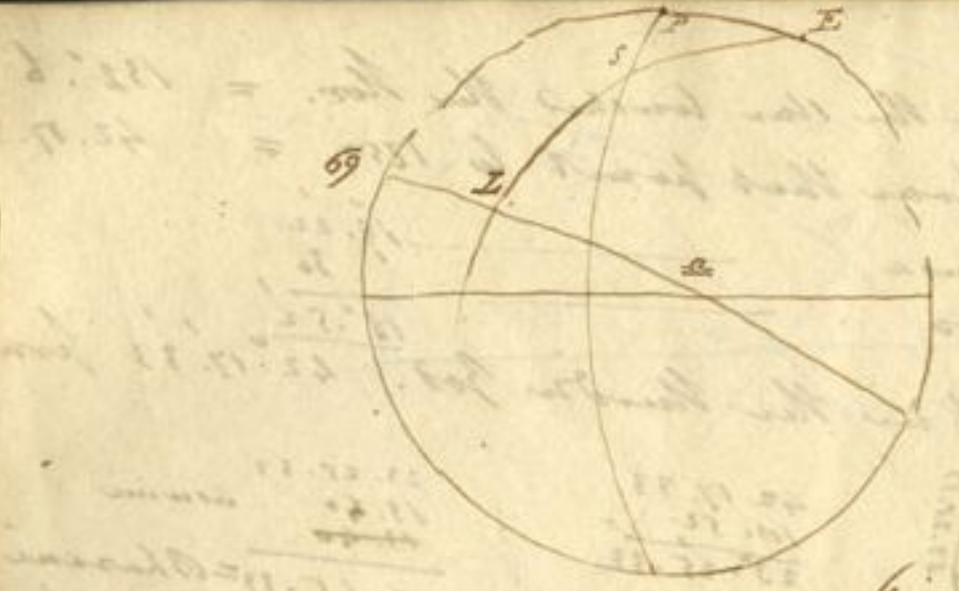
Decl. ——— 10. ———
 Cosine 80.58 9.2066557
 Tang — 75.53 10.5289857
 Tang. Alt. (31.36) 9.7890512
 170 - 31.36 = 148.24 Alt. assumed

Decl. ——— 10. ———
 sine 80.58 9.9445790
 sine Hyp. 75.53 9.9060069
 sine Declin. 73. — 9.9805867

90 - 73 = 17. Dist. from
 the pole, and the lat of
 Argemina being 23.11 the star
 would not descend below
 the horizon of Argemina

Its declin. in 1750 was
 50.34.11 the complement
 being 39.25.49 & the lat
 of Argemina ^{23.11} the star did then
 ascend (39.25.49 - 23.11 =)
 16.14.49 below the horizon

Argemina next the period when the star
 would touch the horizon of Argemina or
 when its declination ~~recess~~ was 66.44



SE = 35.37
 SP = 23.11
 PE = 23.30 oblique

82.17
 half 41.8.30
 SP 23.11
 Diff. 17.47.30

Long. in 1750 174.23.33
 Long. when it
 touched the Hor. } 132.6
 of Argemina 42.17.33

which at 56 years past
 the interval = 3045 years
 between A.D. 1750 and the period when
 the star only touched the Hor. of Argemina

Given
 PE = 23.30 = oblique
 SP = Comp. Declin = 23.11
 SE = Comp. Lat = 35.37
 Whence SPI = 69 I and
 r 9 + 69 I = long. reqd.

sine SE 9.7651911 0.2343089
 sine PE 9.5977827 0.4022173
 sine 41.8. ——— 9.0101020
 sine 17.47. ——— 9.4043951
 19.9400141

cosine 21.3 9.9700071
 21.3 9.9700071
 42.6
 r 9 = 90
 132.6 Long. reqd.

The long. when the star touched the Hor. = $132^{\circ}.6$
 Precursion from that point to 1750 = $42.17.33$

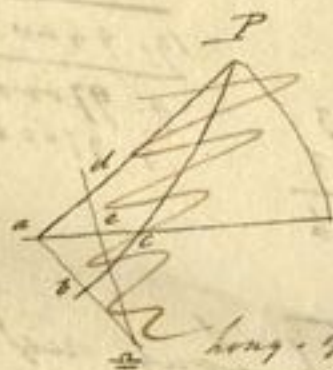
Uridu Aynansa $\frac{19.22}{30}$
 Ded from 1750 $\frac{18^{\circ}.52}{19.22}$
 Count back in the Uridu 3rd. $42.17.33$ from 1750.



$42.17.33$
 10.52
 $\frac{23.25.33}{10.52}$

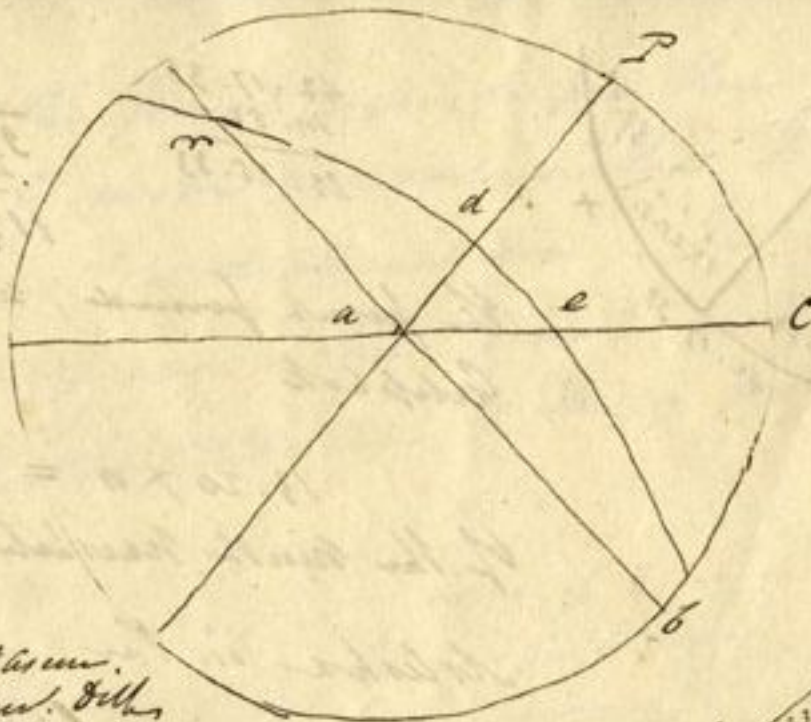
$23.25.33$
 13.40
 $\frac{10.52}{13.40} = \text{Bharani}$
 long of the stars
 Uridu

Qy. In the lat. of Uridu what point of the
 Ecliptic (c) rose when it touched the
 Horizon (c) its Declination then being $66^{\circ}.49$
 Right ascension $169^{\circ}.31$
 Long. 132.6
 Lat. $54.23.45$
 Lat. of Uridu (N) 23.11



In this case the ascen. Diff. is 90°
~~unaccounted for~~

long. of y in 1750 $174.29.53$
 add Aynansa 20.21
 Long. in the point Ecliptic $154.02.33$
 Deduct precursion when it touched the Horizon $42.17.33$
 Long. Uridu when it touched the Hor. 111.45
 $13.20 \times 8 = \text{Drachmas} = 106.40$
 5.5
 5.47



$rb = 169.31$ Ascen.
 $ab = 90$ Ascen. Diff.
 $ra = 79.31$ $94 - rc$

Rad. $\times 23.30$ 9.9623979
 Rad. $10.$
 Tang. $ra 79.31$ 10.7327387
 Tang. $ra 80.21$ 10.7693409

Rad. $10.$
 Line $ra 79.31$ 9.9926095
 Tang. $\times 23.30$ 9.6303019
 Tang. $ad 23.9$ 9.6309914

Rad. $10.$
 Line $\times 23.30$ 9.6006497
 Cosine $ra 79.31$ 9.2599509
 Cosine $ra 85.10$ 8.8666506
 $100 - 05.10 = 94.50$

Rad. $10.$
 Cosine $ad 23.9$ 9.9635417
 Tang $a - 23.11$ 9.6317037
 Cotang $acd 79.27$ 9.9269793
 68.30 9.5952454

$94.50 - 79.27 = acb = 15.23$
 $68.30 = 26.20$
 Cosine $acb 15.23$ 9.9526188
 26.20 9.9041544
 Cosine $acd 68.30$ 9.5640754
 Tang $ac 23.9$ 9.6310032
 Tang $bc 9.52$ 9.2420549
 $= de 9.42$ 9.1950866
 9.2325618

$ra + de = rc$
 $80.21 + 9.42 = 89.63$ Long.
 of the point of the Ecliptic
 which rose when the star
 touched the Horizon



42.17.33
10.52
23.25.33

90
23.25.33

113.28.33 Long. L

The point found, in the Hindu
Celestic

$$13.20 \times 0 = 106.40$$

Of the ninth Navahata 6.11.33

Aslesha is the 9th Navahata

Maybe in which the star is a
said to have been, is the 10th
or 10th Navahata.

According to the Vishnu Puran, the late King
 began when the seven Rishis were in the
 Navahata Maybe (the 10th). This was at the
 close of Judra's reign. ~~at~~ Judra then
 ascended to heaven with Crihana leaving
 the charge administration to Prascheta.

By next the period requisite for the
 point e to move forward in the Hindu
 Celestic $13.20 =$ Navahata. The Hindu
 account represents the period just 100
 years in Judra's time. This is just 8 minutes
 to year

Long. of 9 — 132.6
Increase for 100 years — 1.23.20
Long. — 133.29.20
Lat. — 54.23.45

100
133.29.20
46.30.40

Decl. — 10. —
Sine $46.30.40$ 9.865622
Co. Tang. Lat. $54.23.45$ 7.7651911
Co Tang. $67.18'$ 9.6257531
Tang. 62.33 9.7154326
Sine 70.58 9.9468588
Cosine 23.30 9.9750890
Sine 85.33 9.9750890
Sine 66.22 9.9611564
Sine Declin. 65.58 9.9611564
Height Ascen. 66.52 169.57
Declination 65.58 66.8 N

Decl. — 10. —
Cosine 70.58 25.33 9.8295007
Tang. 66.22 9.9611564
Tang. 10.53 10.8 9.2321901
Decl. $100 - 10 = 90$ 169.57 9.9468588
Sine 70.58 85.33 9.9750890
Sine 66.22 9.9611564
Sine Declin. 65.58 66.8 9.9611564
Height Ascen. 66.52 169.57
Declination 65.58 66.8 N

66.49
66.50
40
51

Tang. Colus. bupine 66.49 10.3602963
 Tang. Declin. 16.0 10.3507372
 Rad. 10
 Line Ascen. Diff 75.27 9.9858462
 73.49 9.9324409

At Ascen 169.52
 Ascen. Diff 79.27
 Oblique Ascen. 094.25
 = αa 96.3
 100 - 96.3 = 3.7 = αa



Cosine α 23.30 9.9623974
 Rad 10
 Tang αa 44.25 11.1121666
 85.35 10.9747490
 Tang αd 36.17 11.1499688
 34.27 11.0123512

Rad 10
 Cosine ad 27.27 23.23 9.9623974
 Tang a 23.11 9.4654336
 Co Tang ad d 49.52 9.9259960
 19.51 9.9262148

ada - ads Side
 47.35 - 49.51 = 37.44
 Cosine Side 38.22 9.9901030
 37.44 9.9943464
 Cosine ad e 38.14 9.9904672
 37.35 9.9954953
 Tang. ad 29.27 18.2610823
 23.123 18.1262270
 Tang. de 1.59 8.2318814
 1.19 8.3627405

Rad 10
 Line αa 85.35 9.9975743
 Tang. 23.30 9.6303019
 Tang ad 23.27 9.6390394
 23.23 9.6358762

Rad 10
 Line 23.30 9.6006997
 Cosine αa 85.35 9.9975743
 83.57 9.9920254
 Cosine αda 88.14 9.9872415
 87.35 9.98255251



Long. Hindu = 117.4.13

αa = αa
 100 - 85.35 = 14.65
 100 - 84.27 = 15.73
 $\alpha a + \alpha e$ = αe
 14.65 + 11.17 = 25.82
 14.65 + 11.17 = 25.82
 of the point of the
 Ecliptic rising with
 the star, which in the
 first 100 years has moved $\frac{1}{2}$
 onward $\frac{1}{2}$ and arrived at
 10.24.15 of Alesha or near the
 12.4.13 beginning of Megha

Q. What was the motion of the point α in
 the next 100 years.

Rad 10
 Line 45.6.10 9.9502417
 Co Tang. Lat 54.27.45 9.8548704
 Co Tang. 63.6.0 9.7051121
 23.30. obliq. 86.36

Long. 173.29.20
 Increase for 100 years 1.23.20
 134.53.40
 Long. 54.23.45
 Lat. 54.23.45

Rad 10
 Cosine 45.6.10 9.9997257
 Cosine Lat 54.27.45 9.7651911
 Cosine Hyp. 64.38 9.6139169
 * 65.24

Tang. Colus. bupine 66.49 10.3602963
 Tang. Declin. 64.25 10
 Rad 10
 Line Ascen. Diff - 63.26 9.9515839

At Ascen 173.16
 Ascen. Diff - 63.26
 Oblique Ascen. 109.50 = αa
 100 - 109.50 = 70.10 = αa

Rad 10
 Cosine 86.36 10.7737014
 Tang. 64.38 10.3241097
 Tang. Oblique αa 88.27 11.5502432
 6.44 0.47 9.0972111
 100 - 6.44 = 173.16

Cosine α 23.30 9.9623974
 Rad 10
 Tang αa 70.10 10.4428706
 Tang αd 68.10 10.4204800

Rad 10
 Line 86.36 9.9992349
 Line 64.38 65.44 9.9594609
 Line Declin. 64.25 9.9552038
 65.31 9.9590595

Rad 10
 Line αa 70.10 9.9734435
 Tang. 23.30 9.6383019
 Tang. ad 22.15 9.6117454

At Ascen 173.16
 Declin. 64.25 65.31

Rad 10
 Line 23.30 9.6006997
 Cosine αa 70.10 9.5305850
 Cosine αda 82.13 9.1312647

Rad 10
 Cosine ad 22.15 9.9863957
 Tang a 23.11 9.6317017
 Co Tang ad d 49.36 9.9850991
 68.23 9.9850991
 ada ads Side
 02.13 - 49.36 = 34.17
 13.50

Cosmic Date $22.34.13.50$ 79254646 93072171 $1000 - 65.40 = 111.20$
 Cosmic date 22.13 111170049 9.1117014
 Tang ad 22.15 7.8112409 9.1112409 $\times 2 + 20 = \times 6$
 Tang de 3.46 18.7435473 18.7435473 $111.20 + 3.46 = 115.6$ The
 $3.16'$ 8.3120027 8.7563302 $3.16 = 114.36$
 Long. of the point e rising
 with M at the end of
 the second century

115.6
 96.42
 18.24

114.36
 $20.18.53$

Tang de $22.2.13$
 $122 - 1.09.50$
 $20.34.53$

$135.14.53$ Long. in the India Caliphate

$13.20 \times 10 = 133.20$
 $2.54.53$
 $135.14.53$

The point e has
 at the end of
 this long more
 through Melpha

Motion of e, in the
 Hindu Caliphate $18^\circ -$
 to Washara $12.4.13$ $6.11.33$ of Washara
 $1.15.57$ $7.8.27$
 to Mughra 13.20 13.20 Mughra
 $3.24.53$ $20.28.57$
 $18.0.50$ $2.34.53$
 25.27 to be

and was advanced
 $2.54.53$ into the 21th
Washara. It was
 motion in this time =
 $18^\circ 24'$ and it follows

that the India Caliphate lived when the point e
 had the motion which is recorded to be, and
 the observation was made at a near
 began the point in Washara must have been
 in the second century from the year when the star
 the Washara (3045 from 21750) or in the 21st of the
 century before Christ.