

Occultatio *Martis* & quarundam Fixarum  
observata

G E D A N I,

Anno 1676, die 1. Sept. st.n. mane, Tubis in priinis

12. &amp; 20. pedum

à

Joh. Hevelio.

**D**IE 31 Augusti, aer omnino nubilosus, imò circa vesperam pluvius exstitit, sic ut vix spes aliqua superfuerit Conjunctionem hanc arctissimam *Lunæ* & *Martis* observandi; nihilominus tamen, cælo circa mediam noctem undique sereno, observatio hæc notabilis, *Lunâ* pene dimidiatâ existente, ex voto successit; ut non solum ingressum *Martis* sub *Lunam* exactissimè, sed etiam egressum ejus omnium optimè animadvertere nobis obtigerit; uti ex apposita observatione liquet. Initium accidit secundum horologium Oscillatorium, ex altitudinibus Fixarum correctum, horâ 1.35'.42", atque Finis horâ 2.46'.29". Mars verò obiectus est circa Montem Audum, incedens quasi per loca *Lunæ* Paludosa, per M. *Æt-nam*, infra Insulam Lesbicam, supra Paludem Acherusiam, supra M. *Goraæm*, per Paludem *Mæotidem*, & paulò supra Insulam *Alopeciam* & ipsum *Lunæ* centrum; sicque rursus ad Lacum majorem occidentalem exiens.

Si queras, unde viam itinerariam hanc ad eò accuratè mihi determinare licuerit, & quidem ad partem *Lunæ* obscuram, scias, eò evenisse, quod Tubis illis meis præcipuas Maculas Majores in parte *Lunæ* umbrosâ satis distinctè deprehendere potuerim; atque ita dilucidè conspexerim, *Martem* circa medium ferè Paludis *Mæotidis* emicuisse.

De cætero notandum occurrit, paulò post *Martis* egressum, aliam insuper stellulam fixam *b*, globo aliàs nondum adscriptam, vix ad 3' minut. prim. infra *Martem* versus Austrum, horâ nimirum 2.53'.35". exiluisse circa Paludes amaras; quam quidem *Lunam* subire haud animadverti: cum totus in eo fuerim, ut *Martis* momentum Occultationis præcisè determinarem; atque sic etiam alteram stellulam *c* *Lunam* appropinquare haud deprehendi, quam postea circa *Martis* exitum horâ scilicet 3.42'.20", ad cornu *Lunæ* inferius ad 4' ferè minut. remotam primùm conspeximus. Quantum colligere datur stellula hæc *c* à *Lunâ* non omnino recta est, sed *Luna* eam solummodò quasi margine suo strinxit. Nihilominus spectaculum fuit admodum jucundum, cælo perquam sereno, non

5 B 2

tantum

tantum Martem prorsus occultatum, nec non alteram stellulam itidem planè teetam, sed pariter alteram stellulam limbo Lune adeo arctè conjunctam vidisse; & quidem circa Lunam à Quadraturâ ultimâ recentem, ejusque partem obscuram rursùs exilientes.

Ahac plures quidem stellulas incognitas circa Lunam conspeximus; verum cum illæ parùm ad hancce observationem faciant, eas typo nostro haud adscripsimus.

Tabulæ Rudolphinæ quæ nonnunquam evidenter à cælo discrepant, hanc insignem Martis Occultationem satis præcise indicarunt. Siquidem initium Occultationis vix ad 5 minut. prim. diversam demonstrarunt, & in fine, & duratione non nisi ad 3' ferè minut. anticipando videlicet, aberrarunt.

## Occultatio Martis, &amp; nonnullarum Fixarum

observata

G E D A N I,

Anno 1676, die 1. Septemb. st.n. mane;

à

Job. Hevelio.

Temp. secund. horol. oscil. Hor., "	Fixarum Nomina.	Altitudi- nes. ° ' "	Temp. ex altit. corr. Hor., "	Animadvertenda.
1 1 25	Caudæ Cygni.	57 10 0	1 0 24	distabat ferè tanto interstitio à limbo D lucido, quanto M. Porphyrites in M. Atna removetur.
1 9 45			1 8 45	
1 36 39	Caudæ Cygni.	51 17 0	1 35 42	Mars à Lunâ omninò te-
1 45 25			1 44 7	ctus.
2 47 54			2 46 29	Mars emicuit; finis nempe occultationis.
2 55 0			2 53 35	Alia stellula fixa b sub Marte egreditur.
3 19 50	Scheat Pegasi.	45 3 0	3 18 19	Fixa c ad cuspitem D inferiore observata est.
3 43 45			3 42 20	

. Martis

Martis à Luna tecti Observationes, Grenovici habitæ, Augusti 21. 1676.  
à J. Flamstedio, in eorum gratiam qui differentiæ Meridianorum in-  
vestigandæ incumbunt ; Editori ab eodem communicatæ.

**A**ugusti 21. ante meridiem pro correptione horologii hæc limbi Solaris  
altitudines acceperam :

Hora horologii.			Hor. supp.		Horol. error.		
h.	"	o	h.	"	"	"	
8.	04. 31	alt. limbi Solis infer.	26.	04	8	09 26	† 4 55
	5.42	.	26.	14	8	10 35	† 4 53
	7.58	.	26.	34	8	12 53	† 4 55
	9.10	.	26.	44 <sup>1</sup>	8	14 03	† 4 53
	10.15	.	26.	54 <sup>2</sup>	8	15 12	† 4 57
	17.15	.	27.	54	8	22 09	† 4 54

Deinde post Meridiem, celo serenissimo.

Hor. horol. Correpti.

h.	"	h.	"		
10.45.03	10.49.58.	Mars à limbo lucido Lunæ	-----	5125=	42.08
11.06.11	11.11.05.	eadem distantia	-----	3829=	31.29
20.00	24.55.	Iterum	-----	3007=	24.44
35.57	40.52.	Denuo	-----	1982=	16.18
57.31	12.02.26.	♂ Z. sive diff. alt. limb. Inf. ♂	-----	1912=	7.35
		jamque tubo ped. 16. ♂ à limbo	-----	1158=	5 47
12.05.00	12.09.55.	Planeta nudis oculis diutius conspici non potuit.			
9.44	14.39.	♂ lux cum lumine Lunæ confusa ♂ Z.	1185=	9.44	
10.03	14.58.	♂ penitus tectus à cuspide boreo	-----	3475=	17 20
18.38	23.33.	41 <sup>a</sup> . ♀ in recta per cuspides ducta apparuit.			
20 36	25.31.	41 <sup>a</sup> . ♀ à limbo vel cussi; Tubo breviori,	3912=	32.10	
24.58	29.53.	41 <sup>a</sup> . ♀ à cuspide iterum eodem tubo	-----	3935=	32.21
46.00	50.55.	Lunæ diameter longiori tubo,	-----	5971=	29.47
13.04.30	13.09.25.	Iterum eodem tubo	-----	5973=	29.48
10.56	10.51.	Martis emergio forsan 4" vel 5" citius.			
13.29	18.24.	♂ à cuspide boreo	-----	3675=	18.20
18.15	23.10.	eadem distantia	-----	4035=	20.08
22.00	26.55.	Lunæ altæ 23" Tubo longiori diameter	-----	5988=	29.55
39.00	43.55.	Lunæ diameter breviori tubo	-----	3645=	29.58

41<sup>a</sup>. ♀ secundum Tychonem locus nunc est ♀ 17. 58<sup>1</sup>/<sub>2</sub> latitudo  
1<sup>o</sup>. 20' Australis ; unde cum Lunæ tum Martis locus accuratè de-  
duci potest. See Fig. IV.

**Mr. Edmund Hally's Observations, concerning the same Occul-  
tation of Mars by the Moon, made at Oxford, Anno 1676.  
Aug. 21. P.M.**

Temp. Corr.

h.			
11.43.30	"	The center of Mars from the Nearest limb of the Moon, —————	719 $\frac{1}{2}$ = 12.40
11.49.2	"	Again, —————	571 = 10.3
11.54.58	"	Again, —————	409 = 7.12
12.3.25	"	The center of Mars from the North Cusp of $\text{D}$ ,	1118 = 19.41
12.10.28	"	The gibbous part of Mars touched the Moons limb.	
12.10.42	"	Mars was wholly covered, being distant from the Cusp, —————	963 = 17.14
12.40.00	"	At this time a Halo encompassed the Moon, in whose Cir- cumference was Saturn, the Pleiades, Capella, and the fol- lowing of the foot of Perseus.	
13.10.41	"	Mars did emerge, I suppose, his Center.	
13.12.45	"	Mars was distant from the Northern horn of $\text{D}$ ,	1018 = 17.55
13.31.10	"	Mars passed over a point noted in the Telescope.	
13.33.15	"	The Southern limb of $\text{Ætna}$ passed by the same point.	
13.34.00	"	The lucid limb passed over the same point.	
13.52.35	"	The Moons diam. observed, 1698 = 30'. 1". alt. $\text{D}$ 31°. circ.	
13.57.52	"	Mars from the Northern horn of the Moon,	2042 = 36.5
14.2.53	"	Mars from the Southern horn of the Moon.	2266 = 40.3

Having carefully considered the Moons Parallaxes in the observa-  
tions of this Occultation at *Dantzick* and *Greenwich*, I find from the  
*Immerſion* the difference of Meridians between *Greenwich* and *Oxford*  
4'. 57"; between *Greenwich* and *Dantzick* 1'. 14'. 50": By the *Emerſion*  
the first of those differences is found 4'. 59", the latter 1'. 14'. 41": which  
near agreement shews the Exactness of all the Observations.

*Two Letters written by Mr. John Beaumont Junior of Stony-  
Easton in Somersſet-ſhire, concerning Rock-Plants and their  
growth.*

SIR, *The First Letter of April 7. 1676.*

I lately perused the greatest part of the Philosophical Trans-  
actions; in which I received so great a satisfaction, that I re-  
solved to gratifie your generous Communications (if I may call  
it a gratuity) with some of the newest occurrents I have met  
with in Nature, which, if as kindly accepted, as freely sent you,  
I shall readily do the like for the future as far as my ability and  
observations will help me out.

What

