

Occultatio *Martis* & quarundam Fixarum  
observata

G E D A N I,

Anno 1676, die 1. Sept. st.n. mane, Tubis inprimis

12. &amp; 20. pedum

à

Joh. Hevelio.

**D**IE 31 Augusti, aer omninò 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 obtectus est circa Montem Audum, incedens quasi per loca *Lunæ* Paludosa, per M. *Æt-nam*, infra Insulam Lesbicam, supra Paludem Acherusiam, supra M. *Coracem*, 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". exiisse 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. remotaro primum conspeximus. Quantum colligere datur stellula hæc *c* à *Lunâ* non omninò secta est, sed *Luna* eam solummodò quasi margine suo strinxit. Nihilominus spectaculum fuit admodum jucundum, cælo perquam sereno, non

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

Adhæc plures quidem stellulas incognitas circa Lunam conspexi- mus; verum cum illæ parùm ad hancce observationem faciant, eas typo nostro haud adscripsimus.

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

Occultatio Martis, & nonnullarum Fixarum

observata

G E D A N I,

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

à

Job. Hevelio.

Temp. secund. horol. oscil.	Fixarum Nomina.	Altitudi- nes.	Temp. ex altit. corr.	Animadvertenda.
Hor., "		° ' "	Hor., "	
1 1 25	Caudæ Cygni.	57 10 0	1 0 24	§ distabat ferè tanto interstitio à limbo D lucido, quanto M. Porphyrites in M. Aetna removetur.
1 9 45			1 8 45	
1 36 39			1 35 42	Mars à Lunâ omninò te- tus.
1 45 25	Caudæ Cygni.	51 17 0	1 44 7	Mars emicuit; finis nempe occultationis.
2 47 54			2 46 29	
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 cuspidem D infe- riorem observata est.
3 43 45			3 42 20	

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

**A**ugusti 21. ante meridiem pro correctione horologii has 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 <sub>1</sub>	8	14 03	+ 4 53
	10.15	.	26.	54	8	15 12	+ 4 57
	17.15	.	27.	54	8	22 09	+ 4 54

Deinde post Meridiem, celo serenissimo.

Hor. horol. Correçta.

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 rectus à cuspide boreo	3475=17.20
	18.38		23.33	4 <sup>1a</sup> . ♂ in recta per cuspides ducta apparuit.	
	20.36		25.31	4 <sup>1a</sup> . ♂ à limbo vel cuspide, Tubo breviori,	3912=32.10
	24.58		29.53	4 <sup>1a</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 emersio 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 alte 23° Tubo longiori diameter	5988=29.55
	39.00		43.55	Lunæ diameter breviori tubo	3645=29.58

41<sup>re</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.

**Mr. Edmund Hally's Observations, concerning the same Occultation 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 Circumference was Saturn, the Pleiades, Capella, and the following 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 $\text{\AA}$ tna 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 observations 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 Somerset-shire, concerning Rock-Plants and their growth.*

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

I lately perused the greatest part of the Philosophical Transactions; in which I received so great a satisfaction, that I resolved 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

