

XXIII. *An Account of a remarkable Appearance in the Moon, April 22, 1751, by James Short, F. R. S.*

Read April 25. ^{1751.} **I**N Numb. 396 of the *Philosoph. Transf.* there is an account of an observation made on a particular and uncommon appearance of the lunar spot called *Plato* in the nomenclature of Riccioli's and Grimaldi's *Selenography*, and *Lacus niger major* in that of Hevelius. Signor Bianchini, to whom we owe this communication, says, that it was the 16 of August 1725, N. St. about an hour after sun-set, when he took his observation with a dioptric telescope, of the length of 150 Roman palms (about 110 English feet) made by the famous Campani, the air being very serene, and the moon (as he says, speaking of the same phenomenon in his book of Venus) a day past the first quarter: so that the said spot then lay in the common section of light and darkness. The mountainous oval margin, with which it is surrounded, was brightly illumin'd with the sun's rays; but the plain bottom look'd darkish as having not yet received his light. There was however extended along its area, from end to end, a track of reddish light, as though a beam had been admitted through some perforation in that side of the margin, which was then exposed to the sun. M. Bianchini proposes the solution of this matter in two different ways: first, by supposing an aperture in the margin, as just now mentioned: or, secondly, by conceiving the moon to have an atmosphere, and that thereby

thereby the rays passing near the summit of the margin might be so refracted, as to be thrown upon the plain area or bottom.

Having lately had an opportunity of observing something of the same nature myself, I take the liberty to lay it before the Society: as also to entreat their opinion about my conjecture concerning the cause thereof.

Monday, April 22, 1751, O. St. being at Marlborough-house along with Dr. Stephens and Mr. Harris, and having directed the great reflector to the moon, I perceived a single streak of light projected along the flat bottom of the spot *Plato*; and from what I was then able to recollect of Signor Bianchini's narrative, I could make no doubt but that it was of the same kind with that, which he saw, and which I had so often looked after in vain. By the position of the spot on the disk, and the shadow of the mountains on the west side of it, we should not have expected to have seen any light on the bottom. Soon after we discerned another streak of light extended along the bottom, parallel to the first, but somewhat lower, which in a very short time was evidently divided into two. I sought in vain for such a perforation, as that hinted at in the other account; but thro' the great magnifying power of this instrument, we were able to discover a gap or notch in the mountains to the westward, which abutted against the first streak or stream, and pursuing our object with great attention, we also perceiv'd a like gap in the direction of the lower streak: but tho' this streak was divided into two, we were not able at any rate to find out another notch, whereby

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to account satisfactorily for the whole appearance; which I should have looked upon as solved, could such an one have been discerned in a right situation. But here I beg to refer myself to the judgment of this Society; only shall observe, the two gaps we saw were directly interpos'd between the sun and their respective streaks.

J. Short.

XXIV. *A Catalogue of the Fifty Plants from Chelsea-Garden, presented to the Royal Society, by the worshipful Company of Apothecaries for the Year 1750, pursuant to the Direction of Sir Hans Sloane, Baronet, Med. Reg. & Soc. Reg. nuper Præses, by John Wilmer, M. D. clariss. Societat. Pharmaceut. Lond. Soc. Hort. Chelf. Præfect. et Prælect. Botanic.*

Read May 2. 1401.
1758.

- A** Butilon periplocæ acutiori folio, fructu stellato. Hort. Elt.
 1402 Allium faxatile acori radice flore purpureo Bocc. Mus.
 1403 Androsace vulgaris latifolia annua Tourn. 123.
 1404 Anemonospermus African. fol. & facie Taraxaci incanis Boerh.
 1405 After Tripolii flore C. B.
 1406 After cœruleus ferotinus frutescens Tradescant.