Errata to: The Moon's Near Side Megabasin and Far Side Bulge

Charles J. Byrne

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C. J. Byrne, *The Moon's Near Side Megabasin and Far Side Bulge*, SpringerBriefs in Astronomy, DOI 10.1007/978-1-4614-6949-0

Underlined text is the corrected text. Hence, the sentences should read as given in "Text should read" column in the below tables.

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Errata

Page number	Location	Text should read	Remarks
8	Section 2.2, first paragraph	The term "basin" was introduced by lunar researchers including those from the United States Geologic Service (USGS).	
16	Section 3.1.1, first paragraph	A new method …digital elevation maps … Lunar Reconnaissance Orbiter (an example is shown in Fig. 1.2).	
54	Last paragraph	3,950 m	*Note*: The error occurs twice in this paragraph.
65	Third paragraph	My response … double the length and width of the area vetted for safety.	
70	Fig. 6.16 legend	…(higher lunar Moho, the lunar equivalent of Earth's Mohorovičić discontinuity) than is shown here.	
71	Section 6.4.1, next to last paragraph	…(typically 10–30 μm)…	
78	Section 7.3, second paragraph	…. Depth of the SPA crater…	
85	Top	In a vertical impact: … that follows the geoid, the material …	
90	Fig. 8.2		*Note*: Artwork color should agree with legend (see figure corrections below).
100	Fig. 9.1		*Note*: The order of maps should be corrected (see figure corrections below).
104	Section 9.5, third paragraph, near bottom	A simulation finds a median velocity of 8.6 km/s for this population …	
108	Second paragraph	…. largest LHB impactors left the E-belt …	
110	Last sentence	… the age of the Imbrium Basin is taken to be 3.85 Ga …	
115	Section 10.3, second paragraph	The model … offset of the center of gravity from the center of figure and compare …	

Typos and Clarity Corrections

Page number	Location	Text should read	Remarks
33	First paragraph	The full set …radial profiles of the set…	
49	First line	The Near Side Megabasin (NSM) is …of its apparent crater that covered…	
62	Section 6.2.6, last paragraph	There is an irony … impact or volcanism …	
66	Section 6.2.9, second paragraph	Vallis Procellarum	
69	Section 6.3.4	The GRAIL mission …lowest altitude of its mission…	
70	Section 6.3.4: last paragraph, last sentence	…it would be a constraint…	
71	Section 6.4.1, last paragraph, first sentence	An improved measuring instrument (Kennedy and de Laeter 1994) was used to analyze zircons from several samples from two widely separated Apollo landing sites. Precise ages were determined for several events that have been strong enough to reset the zircon clocks (Nemchin et al. 2008, 2009).	*Note*: The first sentence should be replaced with the given text.
74	Section 6.5, next to last paragraph	…Kaguya spectroscopy…	
75	First and second paragraphs		*Note*: "Identification of the SPA …southern part of its cavity" repeated twice. Duplicate should be deleted.
80	Section 7.3.3, fourth paragraph	The maps in …from Kaguya data, (Sasaki et al. 2011) that present a coherent ….	*Note*: Change period to comma after the word "data", and underlined word should be "present" not "presents".

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Page number	Location	Text should read	Remarks
83	Section 7.3.4, second paragraph	…one of S. T. Stewart's simulations are…	
83	Last line	… was ejected vertically collapsed into the crater.	
84	Fig. 7.10 legend	… 3-D simulation of an SPA impact …	
87	Section 7.6, end of first paragraph	So the SPA is probably younger than the NSM, which was …	*Note*: "(SPA)" after the term "NSM" should be deleted.
99	Section 9.3, second paragraph	…those elements that form gasses in the space environment.	
101	Second paragraph	… the interacting NSM and SPA is discussed in Chap. 7.	*Note*: The letter "s" should be deleted after the term "SPA".
103	Top	…for the Lunar Magma Ocean (LMO) to crystallize …	
103	Section 9.4.4, last sentence	… mineral patterns associated with their melt columns.	
112	Third paragraph	Identifying two additional megabasins, the NSM and the CM, to ….	*Note*: Underlined word spelling has been corrected, and comma has been inserted after "CM"
115	Third paragraph	Analysis of the ages … 3.8–3.9 Ga, implying the LHB, but …	*Note*: Comma should be added after the term "LHB".
116	Next to last sentence	… is associated with melt columns.	*Note*: End period should be added.

Revised Figures

Figure 8.2 should be:

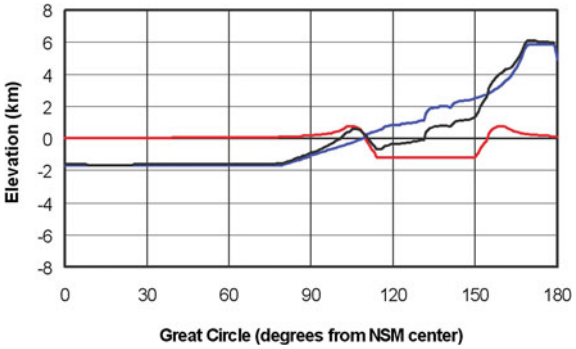

Fig. 8.2 The interaction between the current topography of the CM and the NSM is shown along a great *circle* that connects the centers of the two megabasins with the angle proceeding toward Moscoviense. The model of the CM is *red*, the NSM model is in *blue*, and the superposition of the two is in *black*. There are two ways to interpret this model, depending on whether the CM impact preceded or succeeded the NSM event

Figure 9.1 should be:

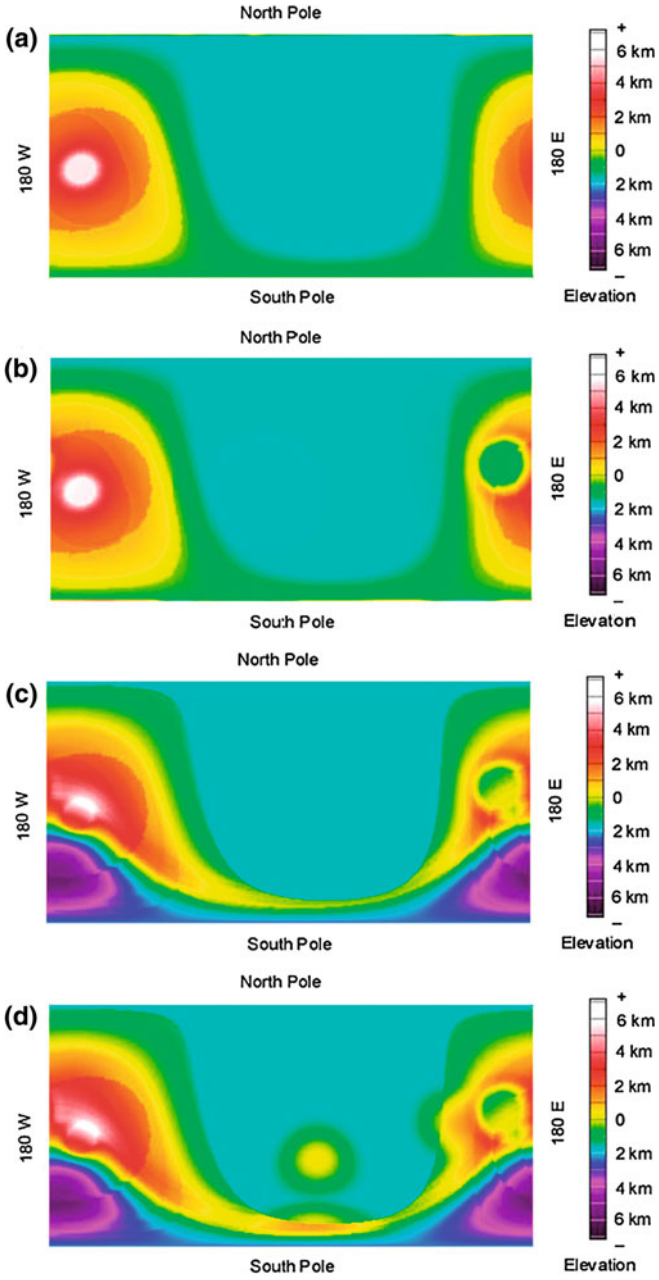

Fig. 9.1 The models of pre-Nectarisn age group 1, first NSM, then CM, then SPA and finally the four mounds. **a** Near side megabasin (*NSM*), **b** Chaplygin-Mandels'shtam Basin (*CM*), **c** South Pole-Aitken Basin (*SPA*), **d** Mounds