http://www.geology.19thcenturyscience.org/books/1858-Humboldt-Cosmos/README.htm

The *ash-gray* light with which a part of the Moon's disk shines when, some days before or after the new Moon, she presents only a narrow crescent, illuminated by the Sun, is *earth-light* in the Moon, "the reflection of a reflection." The less the Moon appears illuminated for the Earth, so much the more is the Earth luminous for the Moon. But our planet shines upon the Moon with an intensity $13\frac{1}{2}$ times greater than the Moon upon the Earth; and this light is sufficiently bright to become again perceptible to us by a *second* reflection. By means of the telescope, mountain-peaks are distinguished in the *ash-gray* light of the larger spots and isolated brightly-shining points, even when the disk is already more than half illuminated.* These phenomena become particularly striking between the tropics and upon the high mountain-plains of Quito and Mexico. Since the time of Lambert and Schröter, the opinion has become prevalent that the extremely variable intensity of the ash-gray light of the Moon depends upon the greater or less degree of reflection of the sunlight which falls upon the Earth, according as it is reflected from continuous continental masses, full of sandy deserts, grassy steppes, tropical forests, and barren rocky ground, or from large ocean surfaces. Lambert made the remarkable observation (14th of February, 1774) of a change of the ash-colored moonlight into an olive green color, bordering upon yellow. "The Moon, which then stood vertically over the Atlantic Ocean, received upon its night side the green terrestrial light, which is reflected toward her when the sky is clear by the forest districts of South America."†

The meteorological condition of our atmosphere modifies the intensity of the earth-light, which has to traverse the

* Mädler, *Astron.*, § 112.

† See Lambert, *Sur la Lumière Cendrée de la Lune*, in the *Mém. de l'Acad. de Berlin, année* 1773, p. 46: "La Terre, vue des planètes, pourra paraître d'une lumière verdâtre, à peu près comme Mars nous paraît d'une couleur rougeâtre." "The Earth, seen from the planets, may appear of a green color, much the same as Mars affords to us of a reddish color." We will not, however, on that account, conjecture with this acute man that the planet Mars may be covered with a red vegetation, such as the rose-red bushes of Bougainvillaea. (Humboldt, *Views of Nature*, p. 334.) "When in Central Europe the Moon, *shortly before the new Moon*, stands in the eastern heavens during the morning hour, she receives the earth-light principally from the large plateau surfaces of Asia and Africa. But *if, after the new Moon*, it stands during the evening in the west, it can only receive the reflection in less quantities from the narrower American continent, and principally from the wide ocean."—Wilhelm Beer and Mädler, *Der Mond nach seinen Cosmischen Verhältnissen*, § 106, p. 152.