Place-Names on the Moon: A Report

HAMIL KENNY

I. Growing Public Attention

Ever since 1957, when the International Geophysical Year began, the moon’s place-names have, to some degree, been in the news. Perhaps the first example of such publicity occurred in November 1958, when newspapers mentioned ALPHONSE, the moon crater where, so Soviet Dr. N. A. Kozjiev believed, volcanic action had lately taken place. This news, when it was discussed in December, 1958, by the Italian magazine Oppe, led to the mention not only of ALPHONSE (“Alfonso”), but of ARISTARCHUS (“Aristarco”), ARZACHEL, COPERNICUS (“Copernico”), KEPLER (“Kepler”), PLATO (“Platone”), POSIDONIUS (“Posidonio”), and Coda del pavone (Galileo’s Cauda Pavonis or Peacock’s Tail). Then in September, 1959, came press notices of three of the moon’s “seas”: MARE SERENITATIS (Sea of Serenity), MARE TRANQUILLITATIS (Sea of Tranquillity), and the MARE VAPORUM.


1 Public attention was attracted to the moon’s place-names in the times of Jules Verne (c. 1865), when Verne in chs. 12, 13, 17, and 18 of Around the Moon (English version by Mercier and King, 1947), using Beier and Medler’s Maps of the Moon (1929), has his moon voyagers mention and fictitiously describe thirty-one lunar features, including “Mount Helicon,” “Gulf of Iris,” “the Black Lake or Pluto,” “the annular mountains of Shortt,” and “the circle of Neander.”


(Sea of Vapors). For it was near these "seas," on September 13, that Lunik II struck the moon. Little more than two years later in 1962, a flash of light activated by a ruby laser also struck the moon, an event that led to public mention of the crater ALBATEGIUS. On January 13, 1962, in a discussion of ideal moon sites, the press noticed the LEIBNITZ MTs. ("Leibnitz mountain range"). The same year, a second Italian magazine, Incom, in a feature article on the moon, spoke of RAETICUS ("Reticum"), SCHICKARD, PHOCYLIDES ("Foucile"), ERATOSTHENES ("Eratostene"), PLATO ("Platone"), and the APENNINES ("Appennini lunari," "Appennini seleniti"). Scanty as they are, such instances suggest on the part of the public an increasing acquaintance with the moon's place-names.

II. Need for Lunar Place-Names

Astronomers need these place-names to enable them to refer to and discuss the moon's visible features. Eppa Loretta states: "If the craters or the seas had no names, the study of them would be practically impossible..." New lunar features are, of course, continually being identified. Moreover, the possibility that the moon may be visited makes it likely that our satellite, from the standpoint of its place-names, will soon cease to be merely "le cimetière des astronomes et la Panthéon des savants.

III. History of Lunar Place-Names

"Who's Who in the Moon" gives a history of lunar place-names, and contains explanatory and biographical notes on the names of all the formations adopted in 1935 by the I.A.U. For "I.A.U." and the like see Symbols and abbreviations preceding footnote 1 on p. 73. The Memoir points out that Langrenus of Brussels (Map, 1645) first gave names to the moon's features, and that the names on a Paris copy of his map come to more than 300. On the map (Selenographia, 1647) of Johann Hevelius of Danzig, whom Agnes Mary Clerke calls the founder of lunar topography, the named features number 250. Departing from the method of Hevelius, Riccioli of Bologna (Almagestum Novum, 1651) named lunar features not only for contemporary astronomers, but also for astronomers of the Middle Ages and antiquity. He lists about 236 features named for persons (e.g., ARISTOTELES), and about seventy-eight features, mainly geographical, which are named impersonally (e.g., PALUS HYPERBorea, *Terra Sapiens). Riccioli kept Kepler's idea of the moon's mari or "seas"; but he gave them names that describe the moon's supposed influences on the earth (e.g., MARE CRISIUM, MARE IMBRIUM, and MARE NUBIUM). Moreover, Riccioli had a system: he named the northern lunar features for the ancients (e.g., PLATO); the moderns he put below. Since -- as a Jesuit -- he believed in the Copernican theory, he gave to an important southern feature the name TYCHO, and relegated the names of the Copernicans to features situated in the OCULUS PROCHELARUM (Sea of Storms). As for later innovators, Johann Schröter (Selenographische Fragmente...2 v., 1791, 1802) first began the use of Greek and Roman letters to identify minor lunar formations.

IV. Present Status, Visible Side

Noting that today's lunar maps keep six of Hevelius' names (e.g., ALPS, APENNINES), and more than 200 of Riccioli's, "Who's..."
Who in the Moon" (p. 5) states that "an authoritative list" of the moon's named formations amounts to 672, of which 609 are personal names. The Memoir bases its figures on what it calls "our latest standard work," Mary A. Blagg and K. Müller's *Named Lunar Formations*, which lists the lunar names drawn up for Commission 17 and approved at a meeting of the I. A. U. in 1932, at Cambridge, Massachusetts. Gerard P. Kuiper describes the 1935 I. A. U. system as having 680 named formations and some 8000 additional features "with letters and symbols ... regionally attached to named features." This is, of course, the nomenclature of the two latest definitive lunar guides, one of which (*Photographic Lunar Atlas*) has been called "the first complete lunar atlas since 1910," and the other of which (*U. S. Air Force Lunar Charts and Mosaics [Charts of the Moon]*) began appearing in 1962 and, upon completion, will consist of eighty-four detailed maps.

The *Photographic Lunar Atlas* omits the alphabetical symbols of the 1935 I. A. U. system. Instead of printing lunar names on its photographs, it divides the moon into forty-four sections and provides index maps (sheets 1–11) and a reference list ("Pamphlet"). Table V, pp. 19–23) of the moon's number and named formations. On the eighty-four Air Force Lunar Charts and Mosaics (Charts of the Moon), being published, both the major names and the names of lettered formations are given. Here, as with Kuiper, the moon is divided into sections, and two "reference mosaic" and a lunar chart index are included. On the Air Force Charts not all of the I. A. U. 1935 standard lunar features are identified. "Eminences" are marked by Greek letters (see LAC 94, May, 1984); Rima is used for Rille. Following Blagg and Müller's system, the Charts utilize capital letters to designate the names of major craters (e.g., COPERNICUS). Smaller neighboring formations, when designated, have lettered names in lower-case letters, with the identifying letters usually single and capitalized (e.g., Copernicus A). In some instances adjacent formations are given two alphabetical letters, with the second letter not always capitalized (e.g., Copernicus BA; but Grimaldi Ga). In these lettered names each part has a meaning — Copernicus BA, for instance, denotes a crater (A) near another crater (B), the latter itself near the major crater COPERNICUS.

The *Photographic Lunar Atlas* (see Table III, "Pamphlet") makes the following seventy-one changes in the I. A. U. 1935 list: (1) there are forty-five changes in spelling and typography — ALTAI SCARP is changed from *ALTAI MTS*, because it is a scarp, not a mountain; (2) Cleft is replaced by Rille, because Cleft implies cleavage — *HYGINUS CLEFT becomes HYGINUS RILLE;* (3) thirteen names are deleted — ROCK MOUNTAINS, for instance, because they are on the moon's edge and are not "readily identifiable"; (4) DESLANDRES has been added — the only name that has lately been recognized by the I. A. U. and added to the 1935 list; (5) *HENRY (FRERES) has, for clarity, been replaced by HENRY, PAUL and HENRY, PROSPER;* (6) the boundaries of five named features have been changed — e.g., *WILKINS, a small 'bay,' is no longer included; and (7) five names are used that are not explicit on the I. A. U. map, but are identifiable from their respective original authorities — e.g., WOLFF (MT.), identifiable from Schröter. These changes have been adopted by the U. S. Air Force Charts, which were prepared with the advisory assistance of Dr. Kuiper and the staff of the *Photographic Lunar Atlas*. However, the Air

---

83 This is not invariable. The lettered formations near the crater WICHMANN (LETRONNE LAC 75) have, for example, single letters, uncapitalized: Wichmann a, Wichmann b, Wichmann c, and Wichmann d.

84 Air Force Charts COPERNICUS LAC 58, GRIMALDI LAC 74.

85 Henri Alexandre Delandres (1853–1948), French physicist and astrophysicist, noted for his contributions to spectroscopy and solar physics.
Force Charts (see LAC 58, COPERNICUS, July 1961) add to the I. A. U. list thirty-two new lettered formations, ranging from Copernicus A, J, and R, to Tobias Mayer M, N, T, and S.

V. Present Status, Hidden Side

Probable theliveliest single event ever to attract public attention to the moon's place-names was the photographic achievement of Russia's Lunik III in October 1959.14 Decked out with brand new place-names, Lunik's snapshots of the moon's hidden side soon appeared in American newspapers. The Washington Star15 gave these names as MOSCOW SEA, ASTRONAUTS BAY, TZIOLKOVSKY HILL, LOMONSOV HILL, JOLIOT-CURIE CRATER, SOVIETSKY MOUNTAIN RANGE, and DREAM SEA. The New York Times, three weeks after the feat,16 told of a photograph with eight spots named by the Soviet Sciences Academy, including a spot called "Moscow Sea." And on March 19, 1960, the New York Times described the new nomenclature as celebrating T. A. Edison and eleven others, including four Russians. The map of the moon's hidden side in Compton's Encyclopedia17 seems, among those in reference books, to have the fullest number of the Russian names: EDISON CRATER, GIORDANO BRUNO CRATER, HERTZ CRATER, JOLIOT-CURIE CRATER, KURCHATOV CRATER, LOMONSOV CRATER, MENDELEEV CRATER, 22

---

17 Richard B. Rodman, translator of An Atlas of the Moon's Far Side, informs me that the man honored by this name is Heinrich Rudolph Hertz (1857-94), who studied electromagnetic transmission and developed Faraday's electromagnetic theory of light.
18 French nuclear scientist, Frederic and Irene Joluit-Curie discovered artificial radioactivity in 1934.
19 Igor Vasilevich Kurchatov (1903-60), Russian physicist.
20 Mikhail Lomonosov, believed in Russia to have developed the first working model of a helicopter.
21 Dmitri Ivanovich Mendeleeff (1834-1907), Russian chemist notable for his researches on the Periodic Law.
Upon studying the moon’s place-names the layman is struck by the fact that many of them are misnomers (SINUS IRIDUM, PAVUS SOMNI, LACUS MORTIS, MARE NUBIUM, OCEANUS PROCELLARUM). He notes that the crater names, most of them personal, do not always do justice to their namesakes — NEWTON, on the moon’s limb, is almost invisible, whereas ARISTARCHUS is the moon’s brightest crater. The layman notices, besides, that some of the crater names (ATLAS, HERCULES, HELICON, even PLATO) have little practical lunar connection. He may feel, indeed, that historical lunar nomenclature is neither very scientific nor very appropriate.

Astronomers themselves have now and then shown dissatisfaction with the moon’s place-names. *MARE ASTRONOMORUM* (Langrenus) has become MARE FRIGORIS, both of them misnomers. *PHILIP IV* has become OCEANUS PROCELLARUM; and *PONTUS EUXINUS* (Hevelius) has become the MARIA TRANQUILLITAS and SERENITAS. Dr. Kuiper’s recent amendments to the I. A. U. nomenclature amount to about seventy-six. In 1955, Commission 16, of the I. A. U., decided to withhold official recognition of all new lunar place-names — until, at least, the completion of “the proposed photographic map of the Moon.”

A fault of the present system, Dr. Kuiper suggests, is that there are continual proposals to add the names of contemporary scientists to the crater names. In May, 1955, for example, it was urged that a crater near NEWTON be named for Albert Einstein. However, says Dr. Kuiper: “The current ‘historical’ system... has acquired some value because many careful observations have been described in its terms.”

By commemorating scientists, and by conforming to the fiction of the moon’s oceans by such names as SEA OF MOSCOW and BAY OF ASTRONAUTS, the Russians have followed the traditional pattern of the I. A. U. 1935 system. Dr. Kuiper (“Pamphlet,” p. 7) states, however, that “in the face of modern requirements” the I. A. U. will soon probably wish to “re-examine the entire problem of lunar nomenclature . . .” It seems to the present writer that the real worth of the traditional system will get its fullest test when the moon is actually visited, a date that has been estimated to be perhaps 1980.

University of Maryland

---

44 AP, *Wash. Star* (datelined Philadelphia), Dec. 20, 1959. A later item in this paper (“Moon Map-Guide for a Lunar Landing,” Sun, April 21, 1953) states that the area to be visited will probably be OCEANUS PROCELLARUM (Ocean of Storms), where there are the three easily recognized craters, KEPLER, ENCKE, and KUNOWSKY.

ADDENDUM

Meanwhile, as this article goes to press, a new wave of lunar enthusiasm has arisen. I refer you to interest in the successful United States space vehicle, Ranger VII, which took close-range photographs and struck the moon’s surface on July 31, 1954. On this occasion the lunar-place-name most mentioned was MARE NUBIUM, the name of the zone where Ranger VII landed.

H. K.