

CHAPTER XI.

FACT AND FANCY.

"Have you ever seen the Moon?" said a teacher ironically one day in class to one of his pupils.

"No, sir;" was the pert reply; "but I think I can safely say I've heard it spoken about."

Though saying what he considered a smart thing, the pupil was probably perfectly right. Like the immense majority of his fellow beings, he had looked at the Moon, heard her talked of, written poetry about her, but, in the strict sense of the term, he had probably never seen her--that is--scanned her, examined her, surveyed her, inspected her, reconnoitred her--even with an opera glass! Not one in a thousand, not one in ten thousand, has ever examined even the map of our only Satellite. To guard our beloved and intelligent reader against this reproach, we have prepared an excellent reduction of Beer and Maedler's Mappa, on which, for the better understanding of what is to follow, we hope he will occasionally cast a gracious eye.

When you look at any map of the Moon, you are struck first of all with one peculiarity. Contrary to the arrangement prevailing in Mars and on our Earth, the continents occupy principally the southern hemisphere of the lunar orb. Then these continents are far from presenting such sharp

and regular outlines as distinguish the Indian Peninsula, Africa, and South America. On the contrary, their coasts, angular, jagged, and deeply indented, abound in bays and peninsulas. They remind you of the coast of Norway, or of the islands in the Sound, where the land seems to be cut up into endless divisions. If navigation ever existed on the Moon's surface, it must have been of a singularly difficult and dangerous nature, and we can scarcely say which of the two should be more pitied--the sailors who had to steer through these dangerous and complicated passes, or the map-makers who had to designate them on their charts.

You will also remark that the southern pole of the Moon is much more continental than the northern. Around the latter, there exists only a slight fringe of lands separated from the other continents by vast "seas." This word "seas"--a term employed by the first lunar map constructors--is still retained to designate those vast depressions on the Moon's surface, once perhaps covered with water, though they are now only enormous plains. In the south, the continents cover nearly the whole hemisphere. It is therefore possible that the Selenites have planted their flag on at least one of their poles, whereas the Parrys and Franklins of England, the Kanes and the Wilkeses of America, the Dumont d'Urville and the Lamberts of France, have so far met with obstacles completely insurmountable, while in search of those unknown points of our terrestrial globe.

The islands--the next feature on the Moon's surface--are exceedingly numerous. Generally oblong or circular in shape and almost as regular in

outline as if drawn with a compass, they form vast archipelagoes like the famous group lying between Greece and Asia Minor, which mythology has made the scene of her earliest and most charming legends. As we gaze at them, the names of Naxos, Tenedos, Milo, and Carpathos rise up before our mind's eye, and we begin looking around for the Trojan fleet and Jason's Argo. This, at least, was Ardan's idea, and at first his eyes would see nothing on the map but a Grecian archipelago. But his companions, sound practical men, and therefore totally devoid of sentiment, were reminded by these rugged coasts of the beetling cliffs of New Brunswick and Nova Scotia; so that, where the Frenchman saw the tracks of ancient heroes, the Americans saw only commodious shipping points and favorable sites for trading posts--all, of course, in the purest interest of lunar commerce and industry.

To end our hasty sketch of the continental portion of the Moon, we must say a few words regarding her orthography or mountain systems. With a fair telescope you can distinguish very readily her mountain chains, her isolated mountains, her circuses or ring formations, and her rills, cracks and radiating streaks. The character of the whole lunar relief is comprised in these divisions. It is a surface prodigiously reticulated, upheaved and depressed, apparently without the slightest order or system. It is a vast Switzerland, an enormous Norway, where everything is the result of direct plutonic action. This surface, so rugged, craggy and wrinkled, seems to be the result of successive contractions of the crust, at an early period of the planet's existence. The examination of the lunar disc is therefore highly favorable for the study of the great geological phenomena of our own globe. As certain astronomers have

remarked, the Moon's surface, though older than the Earth's, has remained younger. That is, it has undergone less change. No water has broken through its rugged elevations, filled up its scowling cavities, and by incessant action tended continuously to the production of a general level. No atmosphere, by its disintegrating, decomposing influence has softened off the rugged features of the plutonic mountains. Volcanic action alone, unaffected by either aqueous or atmospheric forces, can here be seen in all its glory. In other words the Moon looks now as our Earth did endless ages ago, when "she was void and empty and when darkness sat upon the face of the deep;" eons of ages ago, long before the tides of the ocean and the winds of the atmosphere had begun to strew her rough surface with sand and clay, rock and coal, forest and meadow, gradually preparing it, according to the laws of our beneficent Creator, to be at last the pleasant though the temporary abode of Man!

Having wandered over vast continents, your eye is attracted by the "seas" of dimensions still vaster. Not only their shape, situation, and look, remind us of our own oceans, but, again like them, they occupy the greater part of the Moon's surface. The "seas," or, more correctly, plains, excited our travellers' curiosity to a very high degree, and they set themselves at once to examine their nature.

The astronomer who first gave names to those "seas" in all probability was a Frenchman. Hevelius, however, respected them, even Riccioli did not disturb them, and so they have come down to us. Ardan laughed heartily at the fancies which they called up, and said the whole thing

reminded him of one of those "maps of matrimony" that he had once seen or read of in the works of Scudéry or Cyrano de Bergerac.

"However," he added, "I must say that this map has much more reality in it than could be found in the sentimental maps of the 17th century. In fact, I have no difficulty whatever in calling it the Map of Life! very neatly divided into two parts, the east and the west, the masculine and the feminine. The women on the right, and the men on the left!"

At such observations, Ardan's companions only shrugged their shoulders. A map of the Moon in their eyes was a map of the Moon, no more, no less; their romantic friend might view it as he pleased. Nevertheless, their romantic friend was not altogether wrong. Judge a little for yourselves.

What is the first "sea" you find in the hemisphere on the left? The Mare Imbrium or the Rainy Sea, a fit emblem of our human life, beaten by many a pitiless storm. In a corresponding part of the southern hemisphere you see Mare Nubium, the Cloudy Sea, in which our poor human reason so often gets befogged. Close to this lies Mare Humorum, the Sea of Humors, where we sail about, the sport of each fitful breeze, "everything by starts and nothing long." Around all, embracing all, lies Oceanus Procellarum, the Ocean of Tempests, where, engaged in one continuous struggle with the gusty whirlwinds, excited by our own passions or those of others, so few of us escape shipwreck. And, when disgusted by the difficulties of life, its deceptions, its treacheries and all the other miseries "that flesh is heir to," where do we too often fly to avoid them? To the Sinus Iridium or the Sinus Roris,

that is Rainbow Gulf and Dewy Gulf whose glittering lights, alas! give forth no real illumination to guide our stumbling feet, whose sun-tipped pinnacles have less substance than a dream, whose enchanting waters all evaporate before we can lift a cup-full to our parched lips! Showers, storms, fogs, rainbows--is not the whole mortal life of man comprised in these four words?

Now turn to the hemisphere on the right, the women's side, and you also discover "seas," more numerous indeed, but of smaller dimensions and with gentler names, as more befitting the feminine temperament. First comes Mare Serenitatis, the Sea of Serenity, so expressive of the calm, tranquil soul of an innocent maiden. Near it is Lacus Somniorum, the Lake of Dreams, in which she loves to gaze at her gilded and rosy future. In the southern division is seen Mare Nectaris, the Sea of Nectar, over whose soft heaving billows she is gently wafted by Love's caressing winds, "Youth on the prow and Pleasure at the helm." Not far off is Mare Fecunditatis, the Sea of Fertility, in which she becomes the happy mother of rejoicing children. A little north is Mare Crisium, the Sea of Crises where her life and happiness are sometimes exposed to sudden, and unexpected dangers which fortunately, however, seldom end fatally. Far to the left, near the men's side, is Mare Vaporum, the Sea of Vapors, into which, though it is rather small, and full of sunken rocks, she sometimes allows herself to wander, moody, and pouting, and not exactly knowing where she wants to go or what she wants to do. Between the two last expands the great Mare Tranquillitatis, the Sea of Tranquillity, into whose quiet depths are at last absorbed all her simulated passions, all her futile aspirations, all her

unglutted desires, and whose unruffled waters are gliding on forever in noiseless current towards Lacus Mortis, the Lake of Death, whose misty shores

"In ruthless, vast, and gloomy woods are girt."

So at least Ardan mused as he stooped over Beer and Maedler's map. Did not these strange successive names somewhat justify his flights of fancy? Surely they had a wonderful variety of meaning. Was it by accident or by forethought deep that the two hemispheres of the Moon had been thus so strangely divided, yet, as man to woman, though divided still united, and thus forming even in the cold regions of space a perfect image of our terrestrial existence? Who can say that our romantic French friend was altogether wrong in thus explaining the astute fancies of the old astronomers?

His companions, however, it need hardly be said, never saw the "seas" in that light. They looked on them not with sentimental but with geographical eyes. They studied this new world and tried to get it by heart, working at it like a school boy at his lessons. They began by measuring its angles and diameters.

To their practical, common sense vision Mare Nubium, the Cloudy Sea, was an immense depression of the surface, sprinkled here and there with a few circular mountains. Covering a great portion of that part of the southern hemisphere which lies east of the centre, it occupied a space of about 270 thousand square miles, its central point lying in 15° south

latitude and 20° east longitude. Northeast from this lay Oceanus Procellarum, the Ocean of Tempests, the most extensive of all the plains on the lunar disc, embracing a surface of about half a million of square miles, its centre being in 10° north and 45° east. From its bosom those wonderful mountains Kepler and Aristarchus lifted their vast ramparts glittering with innumerable streaks radiating in all directions.

To the north, in the direction of Mare Frigoris, extends Mare Imbrium, the Sea of Rains, its central point in 35° north and 20° east. It is somewhat circular in shape, and it covers a space of about 300 thousand square miles. South of Oceanus Procellarum and separated from Mare Nubium by a goodly number of ring mountains, lies the little basin of Mare Humorum, the Sea of Humors, containing only about 66 thousand square miles, its central point having a latitude of 25° south and a longitude of 40° east.

On the shores of these great seas three "Gulfs" are easily found: Sinus Aestuum, the Gulf of the Tides, northeast of the centre; Sinus Iridium, the Gulf of the Rainbows, northeast of the Mare Imbrium; and Sinus Roris, the Dewy Gulf, a little further northeast. All seem to be small plains enclosed between chains of lofty mountains.

The western hemisphere, dedicated to the ladies, according to Ardan, and therefore naturally more capricious, was remarkable for "seas" of smaller dimensions, but much more numerous. These were principally: Mare Serenitatis, the Sea of Serenity, 25° north and 20° west,

comprising a surface of about 130 thousand square miles; Mare Crisium, the Sea of Crises, a round, well defined, dark depression towards the northwestern edge, 17° north 55° west, embracing a surface of 60 thousand square miles, a regular Caspian Sea in fact, only that the plateau in which it lies buried is surrounded by a girdle of much higher mountains. Then towards the equator, with a latitude of 5° north and a longitude of 25° west, appears Mare Tranquillitatis, the Sea of Tranquillity, occupying about 180 thousand square miles. This communicates on the south with Mare Nectaris, the Sea of Nectar, embracing an extent of about 42 thousand square miles, with a mean latitude of 15° south and a longitude of 35° west. Southwest from Mare Tranquillitatis, lies Mare Fecunditatis, the Sea of Fertility, the greatest in this hemisphere, as it occupies an extent of more than 300 thousand square miles, its latitude being 3° south and its longitude 50° west. Far away to the north, on the borders of the Mare Frigoris, or Icy Sea, is seen the small Mare Humboldtianum, or Humboldt Sea, with a surface of about 10 thousand square miles. Corresponding to this in the southern hemisphere lies the Mare Australe, or South Sea, whose surface, as it extends along the western rim, is rather difficult to calculate. Finally, right in the centre of the lunar disc, where the equator intersects the first meridian, can be seen Sinus Medii, the Central Gulf, the common property therefore of all the hemispheres, the northern and southern, as well as of the eastern and western.

Into these great divisions the surface of our satellite resolved itself before the eyes of Barbican and M'Nicholl. Adding up the various measurements, they found that the surface of her visible hemisphere was

about 7-1/2 millions of square miles, of which about the two thirds comprised the volcanoes, the mountain chains, the rings, the islands--in short, the land portion of the lunar surface; the other third comprised the "seas," the "lakes," the "marshes," the "bays" or "gulfs," and the other divisions usually assigned to water.

To all this deeply interesting information, though the fruit of observation the closest, aided and confirmed by calculation the profoundest, Ardan listened with the utmost indifference. In fact, even his French politeness could not suppress two or three decided yawns, which of course the mathematicians were too absorbed to notice.

In their enthusiasm they tried to make him understand that though the Moon is 13-1/2 times smaller than our Earth, she can show more than 50 thousand craters, which astronomers have already counted and designated by specific names.

"To conclude this portion of our investigation therefore," cried Barbican, clearing his throat, and occupying Aldan's right ear,--"the Moon's surface is a honey combed, perforated, punctured--"

"A fistulous, a rugose, salebrous,--" cut in the Captain, close on the left.

--"And highly cribriform superficies--" cried Barbican.

--"A sieve, a riddle, a colander--" shouted the Captain.

--"A skimming dish, a buckwheat cake, a lump of green cheese--" went on Barbican--.

--In fact, there is no knowing how far they would have proceeded with their designations, comparisons, and scientific expressions, had not Ardan, driven to extremities by Barbican's last profanity, suddenly jumped up, broken away from his companions, and clapped a forcible extinguisher on their eloquence by putting his hands on their lips and keeping them there awhile. Then striking a grand attitude, he looked towards the Moon and burst out in accents of thrilling indignation:

"Pardon, O beautiful Diana of the Ephesians! Pardon, O Phoebe, thou pearl-faced goddess of night beloved of Greece! O Isis, thou sympathetic queen of Nile-washed cities! O Astarte, thou favorite deity of the Syrian hills! O Artemis, thou symbolical daughter of Jupiter and Latona, that is of light and darkness! O brilliant sister of the radiant Apollo! enshrined in the enchanting strains of Virgil and Homer, which I only half learned at college, and therefore unfortunately forget just now! Otherwise what pleasure I should have had in hurling them at the heads of Barbican, M'Nicholl, and every other barbarous iconoclast of the nineteenth century!--"

Here he stopped short, for two reasons: first he was out of breath; secondly, he saw that the irrepressible scientists had been too busy making observations of their own to hear a single word of what he had uttered, and were probably totally unconscious that he had spoken at

all. In a few seconds his breath came back in full blast, but the idea of talking when only deaf men were listening was so disconcerting as to leave him actually unable to get off another syllable.