2. The Great Moon Hoax

Say the words "Moon hoax" these days, and everyone thinks you are talking about the people who don't believe the Apollo astronauts ever went to the Moon. But back in 1835 there was the original Moon hoax that thousands of people fell for, despite the tall tale being complete fiction. A series of articles were published in the *New York Sun* newspaper reporting incredible new astronomical observations of the Moon supposedly made by astronomer Sir John Herschel during an observing run at the Cape of Good Hope with his powerful new telescope. Detailed descriptions of winged beings, plants, animals and a sapphire temple increased sales and subscriptions to the fledgling newspaper.

Here is a selection of the articles from the series:

GREAT ASTRONOMICAL DISCOVERIES
LATELY MADE
BY SIR JOHN HERSCHEL, L.L.D. F.R.S. & C.
at the Cape of Good Hope
[From Supplement to the Edinburgh Journal of Science]

Day 1

"It was about half past nine o'clock on the night of the tenth, the Moon having then advanced within 4 days of her mean liberation, that the astronomer adjusted his instruments for the inspection of her eastern limb. The whole immense power of his telescope was applied and to its focal image about one half of the power of his microscope. On removing the screen of the latter, the field of view was covered throughout its entire area with a beautifully distinct, and even vivid representation of basaltic rock. Its color was a greenish brown, and the width of the columns, as defined by their interstices on the canvass, was invariably 28 in. No fracture whatever appeared in the mass first presented, but in a few seconds a shelving pile appeared of five or six columns width, which showed

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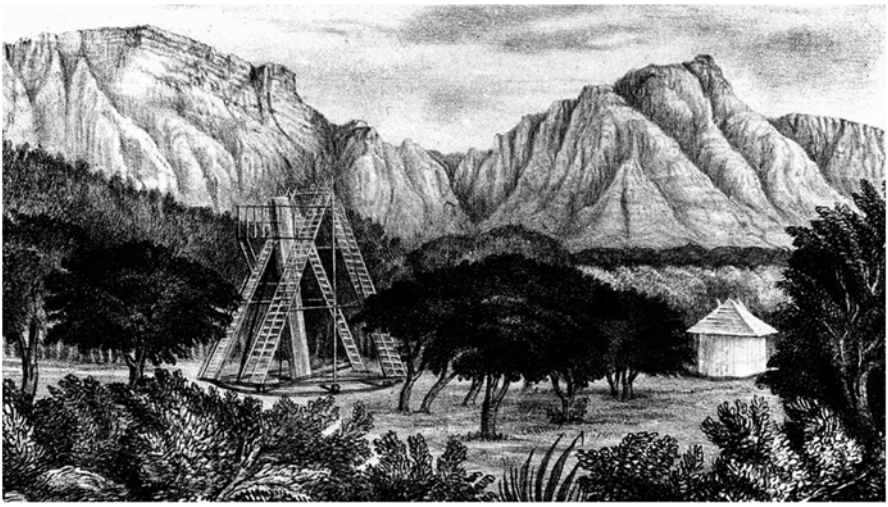

Fig. 2.1 John Herschel's 20-ft telescope at Feldhausen, South Africa, which he reportedly used to discover life on the Moon

their figure to be hexagonal, and their articulations similar to those of the basaltic formation at Staffa. This precipitous shelf was profusely covered with a dark red flower, "precisely similar," says Dr. Grant, "to the Papaver Rhoeas, or rose-poppy of our sublunary cornfields; and this was the first organic production of nature, in a foreign world, ever revealed to the eyes of men." (Fig. 2.1)

"The rapidity of the Moon's ascension, or rather of the Earth's diurnal rotation, being nearly equal to 500 yards in a second, would have effectually prevented the inspection, or even the discovery of objects so minute as these, but for the admirable mechanism which constantly regulates, under the guidance of the sextant, the required altitude of the lens. But its operation was found to be so consummately perfect, that the observers could detain the object upon the field of view for any period they might desire. The specimen of lunar vegetation, however, which they had already seen, had decided a question of too exciting an interest to induce them to retard its exit. It had demonstrated that the Moon has an atmosphere constituted similarly to our own, and capable of sustaining organized, and therefore, most probably animal life. The basaltic rocks continued to pass over the inclined canvass plane, through three successive diameters, when a verdant declivity of great beauty appeared, which occupied two more. This was

preceded by another mass of nearly the former height, at the base of which they were at length delighted to perceive that novelty, a lunar forest." "The trees," says Dr. Grant, "for a period of 10 min, were of one unvaried kind, and unlike any I have seen, except the largest kind of yews in the English churchyards, which they in some respects resemble. These were followed by a level green plain, which, as measured by the painted circle on our canvass of 49 ft, must have been more than half a mile in breadth; and then appeared as fine a forest of firs, unequivocal firs, as I have ever seen cherished in the bosom of my native mountains. Wearied with the long continuance of these, we greatly reduced the magnifying power of the microscope, without eclipsing either of the reflectors, and immediately perceived that we had been insensibly descending, as it were, a mountainous district of a highly diversified and romantic character, and that we were on the verge of a lake, or inland sea; but of what relative locality or extent, we were yet too greatly magnified to determine. On introducing the feeblest acromatic lens we possessed, we found that the water, whose boundary we had just discovered, answered in general outline to the Mare Nubium of Riccoli, by which we detected that, instead of commencing, as we supposed, on the eastern longitude of the planet, some delay in the elevation of the great lens had thrown us nearly upon the axis of her equator. However, as she was a free country, and we not, as yet, attached to any particular province, and moreover, since we could at any moment occupy our intended position, we again slid our magic lenses to survey the shores of the Mare Nubium. Why Riccoli so termed it, unless in ridicule of Cleomedes, I know not; for fairer shores never angels coasted on a tour of pleasure." A beach of brilliant white sand, girt with wild castellated rocks, apparently of green marble, varied at chasms, occurring every 200 or 300 ft, with grotesque blocks of chalk or gypsum, and feathered and festooned at the summit with the clustering foliage of unknown trees, moved along the bright wall of our apartment until we were speechless with admiration. The water, we obtained a view of it, was nearly as blue as that of the deep ocean, and broke in large white billows upon the strand. The action of very high tides was quite manifest upon the face of the cliffs for more than a 100 miles; yet diversified as the scenery was during this and a much greater distance, we perceived no trace

Fig. 2.2 Lunarians had glossy copper-colored hair, yellowish skin, and thin membrane wings that extended from their shoulders to their calves. Herschel could tell by their gestures that they were engaged in impassioned speech and were therefore rational and intelligent beings. Herschel's subsequent days of observations found that the man-bats where of different degrees of evolutionary advancement, with some being more evolved than others

of animal existence, notwithstanding we could command at will a perspective or a foreground view of the whole. Mr. Holmes, indeed, pronounced some white objects of a circular form, which we saw at some distance in the interior of a cavern, to be bona fide specimens of a large cornu ammonis; but to me they appeared merely large pebbles, which had been chafed and rolled there by the tides. Our chase of animal life was not yet to be rewarded (Fig. 2.2).

"Having continued this close inspection of nearly 2 h, during which we passed over a wide tract of country, chiefly of a rugged and apparent volcanic character; and having seen few additional varieties of vegetation, except some species of lichen, which grew everywhere in great abundance, Dr. Herschel proposed that we

should take out all our lenses, give a rapid speed to the panorama, and search for some of the principal valleys known to astronomers, as the most likely method to reward our first night's observation with the discovery of animated beings. The lenses being removed, and the effulgence of our unutterably glorious reflectors left undiminished, we found in accordance with our calculations, that our field of view comprehended about 25 miles of the lunar surface, with the distinctness both of outline and detail which could be procured of a terrestrial object at a distance of two and a half miles; an optical phenomenon which you will find demonstrated in Note 5. This afforded us the best landscape views we had hitherto obtained, and although the accelerated motion was rather too great, we enjoyed them with rapture. Several of these famous valleys, which are bounded by lofty hills of so perfectly conical a form as to render them less like works of nature than or art, passed the canvass before we had time to check their flight; but presently a train of scenery met our eye, of features so entirely novel, that Dr. Herschel signalled for the lowest convenient gradation of movement. It was a lofty chain of obelisk-shaped, or very slender pyramids, standing in irregular groups, each composed of about thirty or forty spires, every one of which was perfectly square, and as accurately truncated as the finest specimens of Cornish crystal. They were of a faint lilac hue, and very resplendent. I now thought that we had assuredly fallen on productions of art; but Dr. Herschel shrewdly remarked, that if the Lunarians could build 30 or 40 miles of such monuments as these, we should ere now have discovered others of a less equivocal character. He pronounced them quartz formations, of probably wine-colored amethyst species, and promised us, from these and other proofs which he had obtained of the powerful action of laws of crystallization in this planet, a rich field of mineralogical study. On introducing a lens, his conjecture was fully confirmed; they were monstrous amethysts, of a diluted claret color, glowing in the light of the sun! They varied in height from 60 to 90 ft, though we saw several of a still more incredible altitude. They were observed in a succession of valleys divided by longitudinal lines of round-breasted hills, covered with verdure and nobly undulated; but what is most remarkable, the valleys which contained these stupendous crystals were invariably barren, and covered with stones of a ferruginous hue, which were probably

iron pyrites. We found that some of these curiosities were situated in a district elevated half a mile above the valley of the Mare Foecunditatis, of Mayer and Riccoli; the shores of which soon hove into view. But never was a name more appropriately bestowed, From "Dan to Bersheba" all was barren, barren—the sea-board was entirely composed of chalk and flint, and not a vestige of vegetation could be discovered with our strongest glasses. The whole breadth of the northern extremity of the sea, which was about 300 miles, having crossed our plane, we entered upon a wild mountainous region abounding with more extensive forests of larger trees than we had seen before—the species of which I have no good analogy to describe. In general contour they resembled our forest oak; but they were much more superb in foliage, having broad glossy leaves like that of the laurel, and tresses of yellow flowers which hung, in the open glades, from the branches to the ground. These mountains passed, we arrived at a region which filled us with utter astonishment. It was an oval valley, surrounded, except at narrow opening towards the south, by hills, red as the purest vermilion, and evidently crystallized; for wherever a precipitous chasm appeared—and these chasms were very frequent, and of immense depth—the perpendicular sections present conglomerated masses of polygon crystals, evenly fitted to each other, and arranged in deep strata, which grew darker in color as they descended to the foundations of the precipices. Innumerable cascades were bursting forth from the breasts of every one of these cliffs, and some so near their summits, and with such great force, as to form arches many yards in diameter. I never was so vividly reminded of Byron's simile, "the tale of the white horse in the Revolution." At the foot of this boundary of hills was a perfect zone of woods surrounding the whole valley, which was about 18 or 20 miles wide, at its greatest breadth, and about 30 in. length. Small collections of trees, of every imaginable kind, were scattered about the whole of the luxuriant area; and here our magnifiers blest our panting hopes with specimens of conscious existence. In the shade of the woods on the south-eastern side, we beheld continuous herds of brown quadrupeds, having all the external characteristics of the bison, but more diminutive than any species of the bos genus in our natural history. Its tail is like that of our bos grunniens; but in its semicircular horns, the hump on its shoulders, and the depth of its dewlap, and the length of its shaggy hair, it closely resembled the

species to which I first compared it. It had, however, one widely distinctive feature, which we afterwards found common to nearly every lunar quadruped we have discovered; namely, a remarkable fleshy appendage over the eyes, crossing the whole breadth of the forehead and united to the ears. We could most distinctly perceive this hairy veil, which was shaped like the upper front outline of a cap known to the ladies as Mary Queen of Scots' cap, lifted and lowered by means of the ears. It immediately occurred to the acute mind of Dr. Herschel, that this was a providential contrivance to protect the eyes of the animal from the extremes of light and darkness to which all the inhabitants of our side of the Moon are periodically subjected" (Fig. 2.3).

The next animal perceived would be classed on Earth as a monster. It was of a bluish lead color, about the size of a goat, with a head and beard like him, and a single horn, slightly inclined forward from the perpendicular. The female was destitute of horn and beard, but had a much longer tail. It was gregarious, and chiefly abounded on the acclivitous glades of the woods. In elegance of symmetry it rivalled the antelope, and like him it seemed an agile sprightly creature, running with great speed, and springing from the green turf with all the unaccountable antics of a young lamb or kitten. This beautiful creature afforded us the most exquisite amusement. The mimicry of its movements upon our white painted canvass was as faithful and luminous as that of animals within a few yards of the camera obscrua, when seen pictures upon its tympan. Frequently when attempting to put our fingers upon its beard, it would suddenly bound away into oblivion, as if conscious of our Earthly impertinence; but then others would appear, whom we could not prevent from nibbling the herbage, say or do what we would to them.

On examining the centre of this delightful valley, we found a large branching river, abounding with lovely islands, and waterbirds of numerous kinds. A species of grey pelican was the most numerous; but a black and white crane, with unreasonably long legs and bill, were also quite common. We watched their pisciverous experiments a long time, in hopes of catching sight of a lunar fish; but although we were not gratified in this respect, we could easily guess the purpose with which they plunged their long necks so deeply beneath the water. Near the upper extremity of one of these islands we obtained a glimpse of a strange amphibious creature, of a spherical form, which rolled with great velocity across

Fig. 2.3 A wide variety of extravagant flora and fauna occupied the Moon

the pebbly beach, and was lost sight of in the strong current which set off from this angle of the island. We were compelled, however, to leave this prolific valley unexplored, on account of clouds which were evidently accumulating in the lunar atmosphere, our

own being perfectly translucent. But this was itself an interesting discovery, for more distant observers had questioned or denied the existence of any humid atmosphere in this planet.

The Moon being now low on her descent, Dr. Herschel inferred that the increasing refrangibility of her rays would prevent any satisfactory protraction of our labors, and our minds being actually fatigued with the excitement of the high enjoyments we had partaken, we mutually agreed to call in the assistants at the lens, and reward their vigilant attention with congratulatory bumpers of the best "East Indian Particular." It was not, however, without regret that we left the splendid valley of the red mountains, which, in compliment to the arms of our royal patron, we denominated "the Valley of the Unicorn;" and it may be found in Blunt's map, about midway between the Mare Faecunditatis and the Mare Nectaris.

The nights of the eleventh and twelfth being cloudy, were unfavorable to observation; but on those of the thirteenth and fourteenth further animal discoveries were made of the most exciting interest to every human being. We give them in the graphic language of our accomplished correspondent (Fig. 2.4).

Fig. 2.4 Great Moon Hoax lithograph of "ruby amphitheater" for *The Sun*, August 28, 1835 (4th article of 6)

Day 2

"The astonishing and beautiful discoveries which we had made during our first night's observation, and the brilliant promise which they gave of the future, rendered every Moonlight hour too precious to reconcile us to the deprivation occasioned by those two cloudy evenings; and they were borne with strictly philosophical patience, notwithstanding that our attention was closely occupied in superintending the erection of additional props and braces to the 24 ft lens, which we found had somewhat vibrated in a high wind that arose on the morning of the eleventh. The night of the thirteenth (January) was one of pearly purity and loveliness. The Moon ascended the firmament in gorgeous splendor, and the stars, retiring around her, left her the unrivalled queen of the hemisphere. This being the last night but one, in the present month, during which we should have an opportunity of inspecting her western limb, on account of the libration in longitude which would thence immediately ensue, Dr. Herschel informed us that he should direct our resources to the parts numbered 2, 11, 26 and 20 in Blunt's map, and which are respectively known in the modern catalogue by the names of Endymion, Cleomedes, Langrenus, and Petavius. To the careful inspection of these, and the regions between them and the extreme western rim, he proposed to devote the whole of this highly favorable night. Taking then our 25 miles breadth of her surface upon the field of view, and reducing it to a slow movement, we soon found the first very singularly shaped object of our inquiry. It is a highly mountainous district, the loftier chains of which form three narrow ovals, two of which approach each other in slender points, and are united by one mass of hills of great length and elevation; thus presenting a figure similar to that of a long skein of thread, the bows of which have been gradually spread open from their connecting knot. The third oval looks also like a skein, and lies as if carelessly dropped from nature's hand in connection with the other; but that which might fancifully be supposed as having formed the second bow of this second skein is cut open, and lies in scattered threads of smaller hills which cover a great extent of level territory. The ground plan of these mountains is so remarkable that it has been accurately represented in almost every lineal map of the Moon that has been drawn; and in Blunt's,

which is the best, it agrees exactly with my description. Within the grasp, as it were, of the broken bow of hills last mentioned, stands an oval-shaped mountain, enclosing a valley of an immense area, and having on its western ridge a volcano in a state of terrific eruption. To the north-east of this, across the broken, or what Mr. Holmes called 'the vagabond mountains,' are three other detached oblong formations, the largest and last of which is marked F in the catalogue, and fancifully denominated the Mare Mortuum, or more commonly the 'Lake of Death.' Induced by a curiosity to divine the reason of so sombre a title, rather than by any more philosophical motive, we here first applied our hydro-oxygen magnifiers to the focal image of the great lens. Our 25 miles portion of this great mountain circus had comprehended the whole of this area, and of course the two conical hills which rise in it about 5 miles from each other; but although this breadth of view had heretofore generally presented its objects as if seen within a terrestrial distance of two and a half miles, we were, in this instance, unable to discern these central hills with any such degree of distinctness. There did not appear to be any mist or smoke around them, as in the case of the volcano which we had left in the south-west, and yet they were completely indistinct upon the canvass. On sliding in the gas-light lens the mystery was immediately solved. They were old craters of extinct volcanoes, from which still issued a heated though transparent exhalation, that kept them in an apparently oscillatory or trembling motion, most unfavorable to examination. The craters of both these hills, as nearly as we could judge under this obstruction, were about 15 fathoms deep, devoid of any appearance of fire, and of nearly a yellowish while color throughout. The diameter of each was about nine diameters of our painted circle, or nearly 450 ft; and the width of the rim surrounding them about 1000 ft; yet notwithstanding their narrow mouths, these two chimneys of the subterranean deep had evidently filled with lava and ashes with which it was encumbered, and even added to the height, if not indeed caused the existence of the oval chain of mountains which surrounded it. These mountains, as subsequently measured from the level of some large lakes around them, averaged the height of 2800 ft; and Dr. Herschel conjectured from this and the vast extent of their abutments, which ran for many miles into the country around them, that these volcanoes must have bee in full activity

for a million years. Lieut. Drummond, however, rather supposed that the whole area of this oval valley was but the exhausted crater of one vast volcano, which in expiring had left only these two imbecile representatives of its power. I believe Dr. Herschel himself afterwards adopted this probable theory, which is indeed confirmed by the universal geography of the planet. There is scarcely a 100 miles of her surface, not excepting her largest seas and lakes, in which circular or oval mountainous ridges may not be easily found; and many, very many of these having numerous enclosed hills in full volcanic eruption, which are now much lower than the surrounding circles, it admits of no doubt that each of these great mountains is the remains of one vast mountain which has burnt itself out, and left only these wide formations of its ancient grandeur. A direct proof of this is afforded in a tremendous volcano, now in its prime, which I shall hereafter notice. What gave the name 'The Lake of Death' to the annular mountain I have just described, was, I suppose, the dark appearance of the valley which it encloses, and which, to a more distinct view than we obtained, certainly exhibits the general aspect of the waters on this planet. The surrounding country is fertile to excess: between this circle and No. 2 (Endymion), which we proposed first to examine, we counted not less than 12 luxuriant forests, divided by open plains, which waved in an ocean of vendure, and were probably prairies like those of North America. In three of these we discovered numerous herds of quadrupeds similar to our friends the bisons in the Valley of the Unicorn, but of much larger size; and scarcely a piece of woodland occurred in our panorama which did not dazzle our visions with flocks of white or red birds upon the wing (Fig. 2.5).

"At length we carefully explored the Endymion. We found each of the three ovals volcanic and sterile within; but, without, most rich, throughout the level regions around them, in every imaginable production of a bounteous soil. Dr. Herschel has classified not less than 38 species of forest trees, and nearly twice this number of plants, found in this tract alone, which are widely different to those found in more equatorial latitudes. Of animals, he classified nine species of mammalia, and five of ovipara. Among the former is a small kind of rein-deer, the elk, the moose, the horned bear, and the biped beaver. The last resembles the beaver of the Earth in every other respect than in its destitution of a tail, and its invariable habit of walking upon only 2 ft. It carries its young

Fig. 2.5 In the midst of a valley near a beautiful lake, there was a wide expanse of plants where Herschel spotted four flocks of large winged creatures. It was at this time that he proclaimed to his assistant, Dr. Andrew Grant, that here is where one would expect to find signs of advanced life and with this proclamation he did indeed discover lunar sentient life. Upon changing to a different lens, Herschel had his first close-up encounter with what appeared to be bat-winged humanoid creatures walking upright, hence given the Latin name *Vespertilio-homo*

in its arms like a human being, and moves with an easy gliding motion. Its huts are constructed better and higher than those of many tribes of human savages, and from the appearance of smoke in nearly all of them, there is no doubt of its being acquainted with the use of fire. Still its head and body differ only in the points stated from that of the beaver, and it was never seen except on the borders of lakes and rivers, in which is has been seen to immerse for a period of several seconds".

"Thirty degrees farther south, in No. 11, or Cleomedes, an immense annular mountain, containing three distinct craters, which have been so long extinguished that the whole valley around them, which is 11 miles in extent, is densely crowded with woods nearly to the summits of the hills. Not a rod of vacant land, except

the tops of these craters, could be descried, and no living creature, except a large white bird resembling the stork. At the southern extremity of this valley is a natural archway or cavern, 200 ft high, and 100 wide, through which runs a river which discharges itself over a precipice of grey rock 80 ft in depth, and thus forms a branching stream through a beautiful campaign district for many miles. Within 12 miles of this cataract is the largest lake, or rather inland sea, that has been found throughout the seven and a half millions of square miles which this illuminated side of the Moon contains. Its width, from east to west, is 198 miles, and from north to south, 266 miles. Its shape, to the northward, is not unlike that of the Bay of Bengal, and it is studded with small islands, most of which are volcanic. Two of these, on the eastern side, are now violently eruptive; but our lowest magnifying power was too great to examine them with convenience, on account of the cloud of smoke and ashes which beclouded our field of view: as seen by Lieut. Drummond, through our reflective telescope of 2000 times, they exhibited great brilliancy. In a bay, on the western side of this sea, is an island 55 miles long, of a crescent form, crowded through its natural sweep with the most superb and wonderful natural beauties, both of vegetation and geology. Its hills are pinnacled with tall quartz crystals, of so rich a yellow and orange hue that we at first supposed them to be pointed flames of fire; and they spring up thus from smooth round brows of hills which are covered with a velvet mantle. Even in the enchanting little valleys of this winding island we could often see these splendid natural spires, mounting in the midst of deep green woods, like church steeples in the vales of Westmoreland. We here first noticed the lunar palm-tree, which differs from that of our tropical latitudes only in the peculiarity of very large crimson flowers, instead of the spadix protruded from the common calyx. We, however, perceived no fruit on any specimens we saw: a circumstance which we attempted to account for from the great (theoretical) extremes in the lunar climate. On a curious kind of tree-melon we nevertheless saw fruit in great abundance, and in every stage of inception and maturity. The general color of these woods was a dark green, though not without occasional admixtures of every tint of our forest seasons. The hectic flush of autumn was often seen kindled upon the cheek of earliest spring; and the gay drapery of summer in some places

surrounded trees leafless as the victims of winter. It seemed as if all the seasons here united hands in a circle of perpetual harmony. Of animals we saw only an elegant striped quadruped about 3 ft high, like a miniature zebra; which was always in small herds on the green sward of the hills; and two or three kinds of long-tailed birds, which we judges to be golden and blue pheasants. On the shores, however, we saw countless multitudes of univalve shell-fish, and among them some huge flat ones, which all three of my associates declared to be cornu ammonae; and I confess I was here compelled to abandon my sceptical substitution of pebbles. The cliffs all along these shores were deeply undermined by tides; they were very cavernous, and yellow crystal stalactites larger than a man's thigh were shooting forth on all sides. Indeed every rood of this island appeared to be crystallized; masses of fallen crystals were found on every beach we explored, and beamed from every fractured headland. It was more like a creation of an oriental fancy than a distinct variety of nature brought by the powers of science of ocular demonstration. The striking dissimilitude of this island to every other we had found on these waters, and its near proximity to the main land, led us to suppose that it must at some time have been a part of it; more especially as its crescent bay embraced the first of a chain of smaller ones which ran directly thither. The first one was a pure quartz rock, about 3 miles in circumference, towering in naked majesty from the blue deep, without either shore or shelter. But it glowed in the sun almost like a sapphire, as did all the lesser ones of whom it seemed the king. Our theory was speedily confirmed; for all the shore of the main land was battlemented and spired with these unobtainable jewels of nature; and as we brought our field of view to include the utmost rim of the illuminated boundary of the planet, we could still see them blazing in crowded battalions as it were, through a region of 100 of miles. If fact we could not conjecture where this gorgeous land of enchantment terminated; for as the rotary motion of the planet bore these mountain summits from our view, we became further remote from their western boundary."

"We were admonished by this to lose no time in seeking the next proposed object of our search, the Langrenus, or No. 26, which is almost within the verge of the libration in longitude, and of which, for this reason, Dr. Herschel entertained some singular expectations" (Fig. 2.6).

Fig. 2.6 After a time of observation, Dr. Herschel passed the Valley of the Unicorn where he found more of the horned bison-like creatures from the previous day's observation. In addition to spotting the bison, Herschel found several other mammals including: a small type of reindeer, elk, a horned bear, moose and a biped beaver. The most remarkable of all discoveries was the bipedal beaver. These remarkable creatures lived in huts, had knowledge of making fires, and carried their young much like humans do. The presence of these beavers, which walked on two legs and had knowledge of basic technology, gave hope that even more advanced creatures could be found, maybe even ones sentient and humanoid in nature

Day 3

"After a short delay in advancing the observatory upon the levers, and in regulating the lens, we found our object and surveyed it. It was a dark narrow lake 70 miles long, bounded, on the east, north, and west, by red mountains of the same character as those surrounding the Valley of the Unicorn, from which it is distant to the south-west about 160 miles. This lake, like that valley, opens to the south upon a plain not more than 10 miles wide, which is here encircled by a truly magnificent amphitheater of the loftiest order of lunar hills. For a semicircle of 6 miles these hills are riven, from their brow to their base, as perpendicularly as the outer walls of the Colosseum at Rome; but here exhibiting the sublime altitude of at least 2000 ft, in one smooth unbroken surface. How nature disposed of the large mass which she thus prodigally carved out, I know not; but certain it is that there are no fragments of it left upon the plain, which is a declivity without a single prominence except a billowly tract of woodland that runs in many a will vagary of breadth and course to the margin of the lake. The tremendous height and expansion of this perpendicular mountain, with its bright crimson front contrasted with the fringe of forest on its brow, and the verdure of the open plain beneath, filled out canvass with a landscape unsurpassed in unique grandeur by any we had beheld. Our 25 miles perspective included this remarkable mountain, the plain, a part of the lake, and the last graduated summits of the range of hills by which the latter is nearly surrounded. We ardently wished that all the world could view a scene so strangely grand, and our pulse beat high with the hope of one day exhibiting it to our countrymen in some part of our native land. But we were at length compelled to destroy our picture, as a while, for the purpose of magnifying its parts for scientific inspection. Our plain was of course immediately covered with the ruby front of this mighty amphitheater, its tall figures, leaping cascades, and rugged caverns. As its almost interminable sweep was measured off on the canvass, we frequently saw long lines of some yellow metal hanging from the crevices of the horizontal strata in will net-work, or straight pendant branches. We of course concluded that this was virgin gold, and we had no assay-master to prove to the contrary. On searching the plain, over which we had observed

the woods roving in all the shapes of clouds in the sky, we were again delighted with the discovery of animals. The first observed was a quadruped with an amazingly long neck, head like a sheep, bearing two long spiral horns, white as polished ivory, and standing in a perpendicular parallel to each other. Its body was like that of a deer, but its fore-legs were most disproportionally long, and its tail, which was very busy and of a snowy whiteness, curled high over its rump, and hung 2 or 3 ft by its side. Its colors were bright bay and white in brindled parches, clearly defined, but of no regular form. It was found only in pairs, in spaces between the woods, and we had no opportunity of witnessing its speed or habits. But a few minutes only elapsed before three specimens of another animal appeared, so well known to us all that we fairly laughed at the recognition of so familiar an acquaintance in so distant a land. They were neither more nor less than three good large sheep, which would not have disgraced the farms of Leicestershire, or the shambles of Leanenhall-market. With the utmost scrutiny, we could find no mark of distinction between these and those of our native soil; they had not even the appendage over the eyes, which I have described as common to lunar quadrupeds. Presently they appeared in great numbers, and on reducing the lenses, we found them in flocks over a great part of the valley. I need not say how desirous we were of finding shepherds to these flocks, and even a man with blue apron and rolled up sleeves would have been a welcome sight to us, if not to the sheep; but they fed in peace, lords of their own pastures, without either protector or destroyer in human shape" (Fig. 2.7).

"We at length approached the level opening to the lake, where the valley narrows to a mile in width, and displays scenery on both sides picturesque and romantic beyond the powers of prose description. Imagination, borne on the wings of poetry, could alone gather similes to portray the wild sublimity of this landscape, where dark behometh crags stood over the brows of lofty precipices, as if a rampart in the sky; and forests seemed suspended in mid air. On the eastern side there was one soaring crag, crested with trees, which hung over in a curve like three-fourths of a Gothic arch, and being of a rich crimson color, its effect was most strange upon minds unaccustomed to the association of such grandeur with such beauty. "But whilst gazing upon them in a per-

Fig. 2.7 Along with iconic images of the man-bats, horned bison, and bipedal beavers, an Italian version of the newspaper story contains nineteenth century missionaries on the Moon studying and capturing the Lunarians and a beautiful balloon used by them to travel to the Moon. These additions have interesting back stories. The inclusion of the explorers and missionaries could have been the result of a general public call to send missionaries and bibles to the Moon to make sure the Lunarians were well versed in the Bible

spective of about half a mile, we were thrilled with astonishment to perceive four successive flocks of large winged creatures, wholly unlike any kind of birds, descend with a slow even motion from the cliffs on the western side, and alight upon the plain. They were first noted by Dr. Herschel, who exclaimed, "Now, gentlemen, my theories against your proofs, which you have often found a pretty even bet, we have here something worth looking at: I was confident that if we ever found beings in human shape, it would be in this longitude, and that they would be provided by their Creator with some extraordinary powers of locomotion: first exchange for my number D.' This lense being soon introduced, gave us a fine half-mile distance, and we counted 3 parties of these creatures, of 12, none, and 15 in each, walking erect towards a small wood near the base of the eastern precipices. Certainly the were like human beings, for their wings had now disappeared, and their attitude in walking was both erect and dignified. Having observed them at this distance for some minutes, we introduced lens Hz which brought them to the apparent proximity of 80 yards; the highest clear magnitude we possessed until the latter end of March, when we effected an improvement in the gas-burners. About half of the first party had passed beyond our canvass; but of all the others we had a perfect distinct and deliberate view. They averaged 4 ft in height, were covered, except on the face, with short and glossy copper-colored hair, and had wings composed of a thin membrane, without hair, lying snugly upon their backs, from the top of their shoulders to the calves of their legs. The face, which was of a yellowish flesh color, was a slight improvement upon that of the large orang outang, being more open and intelligent in its expression, and having a much greater expansion of forehead. The mouth, however, was very prominent, though somewhat relieved by a thick beard upon the lower jaw, and by lips far more human than those of any species of simia genus. In general symmetry of body and limbs they were infinitely superior to the orang outang; so much so, that, but for their long wings, Lieut. Drummond said they would look as well on a parade ground as some of the old cockney militia! The hair on the head was a darker color than that of the body, closely curled, but apparently not wooly, and arranged in two curious semicircles over the temples of the forehead. Their feet could only be seen as they were alternately lifted in walking;

but, from what we could see of them in so transient a view, they appeared thin, and very protuberant at the heel."

"Whilst passing across the canvas, and whenever we afterwards saw them, these creatures were evidently engaged in conversation; their gesticulation, more particularly the varied action of their hands and arms, appeared impassioned and emphatic. We hence inferred that they were rational beings, and although not perhaps of so high an order as others which we discovered the next month on the shores of the Bay of Rainbows, they were capable of producing works of art and contrivance. The next view we obtained of them was still more favorable. It was on the borders of a little lake, or expanded stream, which we then for the first time perceived running down the valley to a large lake, and having on its eastern margin a small wood. "Some of these creatures had crossed this water and were lying like spread eagles on the skirts of the wood. We could then perceive that they possessed wings of great expansion, and were similar in structure to this of the bat, being a semi-transparent membrane expanded in curvilineal divisions by means of straight radii, united at the back by the dorsal integuments. But what astonished us very much was the circumstance of this membrane being continued, from the shoulders to the legs, united all the way down, though gradually decreasing in width. The wings seemed completely under the command of volition, for those of the creatures whom we saw bathing in the water, spread them instantly to their full width, waved them as ducks do their to shake off the water, and then as instantly closed them again in a compact form. Our further observation of the habits of these creatures, who were of both sexes, led to results to very remarkable, that I prefer they should first be laid before the public in Dr. Herschel's own work, where I have reason to know they are fully and faithfully stated, however incredulously they may be received.—The three families then almost simultaneously spread their wings, and were lost in the dark confines of the canvass before we had time to breathe from our paralyzing astonishment. We scientifically denominated them as Vespertilio-homo, or man-bat; and they are doubtless innocent and happy creatures, notwithstanding that some of their amusements would but ill comport with our terrestrial notions of decorum. The valley itself we called the Ruby Coloseum, in compliment to its stupendous southern

Fig. 2.8 Pictures showing daily activity of the Lunarians

boundary, the 6 mile sweep of precipices 2000 ft high. And the night, or rather morning, being far advanced, we postponed our tour to Petavius (No. 20), until another opportunity." (Fig. 2.8)

"We have, of course, faithfully obeyed Dr. Grant's private injunction to omit those highly curious passages in his correspondence which he wished us to suppress, although we do not perceive the force of the reason assigned for it. It is true, the omitted

paragraphs contain facts which would be wholly incredible to readers who do not carefully examine the principles and capacity of the instrument with which these marvellous discoveries have been made; but so will nearly all those which he has kindly permitted us to publish; and it was for this reason we considered the explicit description which we have given of the telescope so important a preliminary. From these, however, and other prohibited passages, which will be published by Dr. Herschel, with the certificates of the civil and military authorities of the colony, and of several Episcopal, Wesleyan, and other ministers, who, in the month of March last, were permitted, under the stipulation of temporary secrecy, to visit the laboratory, and become eye-witnesses of the wonders which they were requested to attest, we are confident his forthcoming volumes will be at once the most sublime in science, and the most intense in general interest, that ever issued from the press.

The night of the fourteenth displayed the Moon in her mean libration, or full; but the somewhat humid state of the atmosphere being for several hours less favorable to a minute inspection than to a general survey of her surface, they were chiefly devoted to the latter purpose. But shortly after midnight the last veil of mist was dissipated, and the sky being as lucid as on the former evenings, the attention of the astronomers was arrested by the remarkable outlines of the spot marked Tycho, No. 18, in Blunt's lunar chart; and in this region they added treasures to human knowledge which angels might well desire to win. Many parts of the following extract will remain forever in the chronicles of time."

Day 4

"The surface of the Moon, when viewed in her mean libration, even with telescopes of very limited power, exhibits three oceans of vast breadth and circumference, independently of seven large collections of water, which may be denominated seas. Of inferior waters, discoverable by the higher classes of instruments, and usually called lakes, the number is so great that no attempt has yet been made to count them. Indeed, such a task would be almost equal to that of ennumerating the annular mountains which are

found upon every part of her surface, whether composed of land or water. The largest of the three oceans occupies a considerable portion of the hemisphere between the line of her northern axis and that of her eastern equator, and even extends many degrees south of the latter. Throughout its eastern boundary, it so closely approaches that of the lunar sphere, as to leave in many places merely a fringe of illuminated mountains, which are here, therefore, strongly contra-distinguished from the dark and shadowy aspect of the great deep. But peninsulas, promontories, capes, and islands, and a thousand other terrestrial figures, for which we can find no names in the poverty of our geographical nomenclature, are found expanding, sallying forth, or glowing in insular independence, through all the 'billowy boundlessness' of this magnificent ocean. One of the most remarkable of these is a promontory, without a name, I believe, in the lunar charts, which starts from an island district denominated Copernicus by the old astronomers, and abounding, as we eventually discovered, with great natural curiosities. This promontory is indeed most singular. Its northern extremity is shaped much like an imperial crown, having a swelling bow, divided and tied down in its centre by a band of hills which is united with its forehead or base. The two open spaces formed by this division are two lakes, each 80 miles wide; and at the foot of these, divided from them by the band of hills last mentioned, is another lake, larger than the two put together, and nearly perfectly square. This one is followed, after another hilly division, by a lake of an irregular form; and this one yet again, by two narrow ones, divided longitudinally, which are attenuated northward to the main land. Thus the skeleton promontory of mountain ridges runs 396 miles into the ocean, with six capacious lakes, enclosed within its stony ribs. Blunt's excellent lunar chart gives this great work of nature with wonderful fidelity, and I think you might accompany my description with an engraving from it, much to your reader's satisfaction."

"Next to this, the most remarkable formation in this ocean is a strikingly brilliant annular mountain of immense altitude and circumference, standing 330 miles E.S.E., commonly known as Aristarchus (No. 12), and marked in the chart as a large mountain, with a great cavity in its centre. That cavity is, now, as it was probably wont to be in ancient ages, a volcanic crater, awfully

rivaling our Mounts Etna and Versuvius in the most terrible epochs of their reign. Unfavorable as the state of the atmosphere was to close examination, we could easily mark its illumination of the water over a circuit of 60 miles. If we have before retained any doubt of the power of lunar volcanoes to throw fragments of their craters so far beyond the Moon's attraction that they would necessarily gravitate to this Earth, and thus account for the multitude of massive aerolites which have fallen and been found upon our surface, the view which we had of Aristarchus would have set our skepticism forever at rest. This mountain, however, though standing 300 miles in the ocean, is not absolutely insular, for it is connected with the main land by four chains of mountains, which branch from it as a common centre."

"The next great ocean is situated on the western side of the meridian line, divided nearly in the midst by the line of the equator, and is about 900 miles in north and south extent. It is marked C in the catalogue, and was fancifully called the Mare Tranquillitatis. It is rather two large seas than one ocean, for it is narrowed just under the equator by a strait not more than 100 miles wide. Only three annular islands of a large size, and quite detached from its shores, are to be found within it; though several sublime volcanoes exist on its northern boundary; one of the most stupendous of which is within 120 miles of the Mare Nectaris before mentioned. Immediately contiguous to this second great ocean, and separated from it only by a concatenation of dislocated continents and islands, is the third, marked D, and known as the Mare Serenitatis. It is nearly square, being about 330 miles in length and width. But is has one most extraordinary peculiarity, which is a perfectly straight ridge of hills, certainly not more than 5 miles wide, which starts in a direct line from its southern to its northern shore, dividing it exactly in the midst. This singular ridge is perfectly sui generis, being altogether unlike any mountain chain either on this Earth or on the Moon itself. It is so very keen, that its great concentration of the solar light renders it visible to small telescopes; but its character is so strikingly peculiar, that we could not resist the temptation to depart from our predetermined adherence to a general survey, and examine it particularly. Our lens Gx brought it within the small distance of 800 yards, and its whole width of 4 or 5 miles snugly within that of our canvass. Nothing

that we had hitherto seen more highly excited our astonishment. Believe it or believe it not, it was one entire crystallization!—its edge, throughout its whole length of 340 miles, is an acute angle of solid quartz crystal, brilliant as a piece of Derbyshore spar just brought from a mine, and containing scarcely a fracture or a chasm from end to end! What a prodigious influence must our 13 times larger globe have exercised upon this satellite, when an embryo in the womb of time, the passive object of chemical affinity! We found that wonder and astonishment, as excited by objects in this distant world, were but modes and attributes of ignorance, which should give place to elevated expectations, and to reverential confidence in the illimitable power of the Creator" (Fig. 2.9).

"The dark expanse of waters south of the first great ocean has often been considered a fourth; but we found it to be merely a sea of the first class, entirely surrounded by land, and much more encumbered with the promontories and islands that it has been exhibited in any lunar chart. One of its promontories runs from the vicinity of Pitatus (No. 19), in a slightly curved and very narrow line, to Bullialdus (No. 22), which is merely a circular head to it, 264 miles from its starting place. This is another mountainous ring, a marine volcano, nearly burnt out, and slumbering upon its cindres. But Pictatus, standing upon a bold cape of the southern shore, is apparently exulting in the might and majesty of its fires. The atmosphere being now quite free from vapor, we introduced the magnifiers to examine a large bright circle of hills which sweep close beside the western abutments of this flaming mountain. The hills were either of snow-white marble or semi-transparent crystal, we could not distinguish which, and they bounded another of those lovely green valleys, which, however monotonous in my descriptions, are of paradisiacal beauty and fertility, and like primitive Eden in the bliss of their inhabitants. Dr. Herschel again predicted another of his sagacious theories. He said the proximity of the flaming mountain, Bullialdus, must be so great a local convenience to dwellers in this valley during the long periodical absence of solar light, as to render it a place of populous resort for inhabitants of all the adjacent regions, more especially as its bulwark of hills afforded an infallible security against any volcanic eruptions that could occur. We therefore applied our full power to explore it, and rich indeed was our reward."

Fig. 2.9 Portrait of a man-bat ("*Vespertilio-homo*"), from an edition of the Moon series published in the *New York Sun*

"The very first object in this valley that appeared upon our canvass was a magnificent work of art. It was a temple—a fane of devotion, or of science, which, when consecrated to the Creator is devotion of the loftiest order; for it exhibits his attributes purely free from the masquerade, attire, and blasphemous caricature of controversial creeds, and has the seal and signature of his own hand to sanction its aspirations. It was an equitriangular temple, built of polished sapphire, or of some resplendent blue stone, which, like it, displayed a myriad points of golden light twinkling

and scintillating in the sunbeams. Our canvass, though 50 ft in diameter, was too limited to receive more than a sixth part of it at one view, and the first part that appeared was near the centre of one of its sides, being three square columns, 6 ft in diameter at its base, and gently tapering to a height of 70 ft. The intercolumniations were each 12 ft. We instantly reduced our magnitude, so as to embrace the whole structure in one view, and then indeed it was most beautiful. The roof was composed of some yellow metal, and divided into three compartments, which were not triangular planes inclining to the centre, but subdivided, curbed, and separated, so as to present a mass of violently agitated flames rising from a common source of conflagration and terminating in wildly waving points. This design was too manifest, and too skillfully executed to be mistaken for a single monument. Though a few openings in these metallic flames we perceived a large sphere of a darker kind of metal nearly of a clouded copper color, which they enclosed and seemingly raged around, as if hieroglyphically consuming it. The was the roof; but upon each of the three corners there was a small sphere of apparently the same metal as the large centre one, and these rested upon a kind of cornice, quite new in any order of architecture with which we are acquainted, but nevertheless exceedingly graceful and impressive. It was a half-opened scroll, swelling off boldly from the roof, and hanging far over the walls in several convolutions. It was of the same metal as the flames, and on each side of the building it was open at both ends. The columns, six on each side, were simply plain shafts, without capitals or pedestals, or any description of ornament; nor was any perceived in other parts of the edifice. It was open on each side, and seemed to contain neither seats, altars, nor offerings; but it was a light and airy structure, nearly a 100 ft high from its white glistening floor to its glowing roof, and it stood upon a round green eminence on the eastern side of the valley. We afterwards, however, discovered two others, which were in every respect facsimiles of this one; but in neither did we perceive and visitants besides flocks of wild doves which alighted upon its lustrous pinnacles. Had the devotees of these temples gone the way of all living, or were the latter merely historical monuments? What did the ingenious builders mean by the globe surrounded by flames? Did they by this record any past calamity of their world, or predict any future one of ours? I by no

means despair of ultimately solving not only these but a thousand other questions which present themselves respecting the objects of this planet; for not the millionth part of her surface has yet been explored, and we have been more desirous of collecting the greatest possible number of new facts, than of indulging in speculative theories, however seductive for the imagination."

Day 5

"But we had far not to seek for inhabitants of this 'Vale of the Triads.' Immediately on the outer border of the wood which surrounded, at a distance of half a mile, the eminence on which the first of these temples stood, we saw several detached assemblies of beings whom we instantly recognized to be of the same species as our winged friends of the Ruby Colosseum near the lake Langrenus. Having adjusted the instrument for a minute examination, we found that nearly all the individuals in these groups were of larger stature than the former specimens, less dark in color, and in every respect an improved variety of the race. They were chiefly engaged in eating a large yellow fruit like a gourd, sections of which they divided with their fingers, and ate with rather uncouth voracity, throwing away the rind. A smaller red fruit, shaped like a cucumber, which we had often seen pendant from trees having a broad dark leaf, was also lying in heaps in the centre of several of the festive groups; but the only use they appeared to make of it was sucking its juice, after rolling it between the palms of their hands and nibbling off an end. They seemed eminently happy, and even polite, for we saw, in many instances, individuals sitting nearest these piles of fruit, select the largest and brightest specimens, and throw them archwise across the circle to some opposite friend or associate who extracted the nutriment from those scattered around him, and which were frequently not a few. While thus engaged in their rural banquets, or in social converse, they were always seated with their knees flat upon the turf, and their feet brought evenly together in the form of a triangle. And for some mysterious reason or other this figure seemed to be an especial favorite among them; for we found that every group or social circle arranged itself in this shaped before it dispersed, which was generally done at the

signal of an individual who stepped into the centre and brought his hands over his head in an acute angle. At this signal each member of the company extended his arms forward so as to form an acute angle horizontal angle with the extremity of the fingers. But this was not the only proof we had that they were creatures of order and subordination. We had no opportunity of seeing them actually engaged in any work of industry or art; and so far as we could judge, they spent their happy hours in collecting various fruits in the woods, in eating, flying, bathing, and loitering about on the summits of precipices. But although evidently the highest order of animals in this rich valley, they were not its only occupants. Most of the other animals which we had discovered elsewhere, in very distant regions, were collected here; and also at least eight or nine new species of quadrupeds. The most attractive of these was a tall white stag with lofty spreading antlers, black as ebony. We several times saw this elegant creature trot up to the seated parties od the semi-human beings I have described, and browse the herbage close beside them, without the least manifestation of fear on his part or notice on their. The universal state of amity among all classes of lunar creatures, and the apparent absence of every carnivorous or ferocious creatures, gave us the most refined pleasure, and doubly endeared to us this lovely nocturnal companion of our larger, but less favored world."

"With the careful examination of this instructive valley, and a scientific classification of its animal, vegetable, and mineral productions, the astronomers closed their labors for the night; labors rather mental than physical, and oppressive, from the extreme excitement which they naturally induced. A singular circumstance occurred the next day, which three the telescope quite out of use for nearly a week, by which time the Moon could be no longer observed that month. The great lens, which was usually lowered during the day, and placed horizontally, had, it is true, been lowered as usual, but had been inconsiderately left in a perpendicular position. Accordingly, shortly after sunrise the next morning, Dr. Herschel and his assistants, Dr. Grant and Messrs. Drummond and Home, who slept in a bungalow erected a short distance from the observatory circle, were awakened by the loud shouts of some Dutch farmers and domesticated Hottentotts (who were passing with their oxen to agricultural labor), that the "big

house" was on fire! Dr. Herschel leaped out of bed from his brief slumbers, and, sure enough, saw his observatory enveloped in a cloud of smoke. Luckily it had been thickly covered, within and without, with a coat of Romanplaster, or it would inevitably have been destroyed will all its invaluable contents; but, as it was, a hole 15 ft in circumference had been burnt completely though the "reflecting chamber," which was attached to the side of the observatory nearest the lens, through the canvass field on which had been exhibited so many wonders that will ever live in the history of mankind, and through the outer wall. So fierce was the concentration of the solat reyas through the gigantic lense, that a clump of trees standing in a line with them was set on fire, and the plaster of the observatory walls, all round the oriface, was vitrified to blue glass. The lens being almost immediately turned, and a brook of water being within a few 100 yards, the first was soon extinguished, but the damage already done was not inconsiderable. The microscope lenses had fortunately been removed for the purpose of being cleaned, but several of the metallic reflectors were so fused as to be rendered useless. Masons and carpenters were procured from Cape Town with all possible dispatch, and in about a week the whole apparatus was again prepared for operation."

"The Moon being now invisible Dr. Herschel directed his inquiries to the primary planets of the system, and first to the planet Saturn. We need not say that this remarkable globe has for many ages been an object of the most ardent astronomical curiosity. The stupendous phenomenon of its double ring having baffled the scrutiny and conjecture of many generations of astronomers, was finally abandoned as inexplicable. It is well known that this planet is stationed in the system 900 millions of miles distant from the sun, and that having the immense diameter of 79,000 miles, it is more than 900 times larger than Earth. The annual motion round the sun os not accomplished in less that 29½ of our years, whilst its diurnal rotation upon its axis is accomplished in 10 h. 16 m., or considerably less than half a terrestrial day. It has not less than seven Moons, the sixth and seventh of which were discovered by the elder Herschel in 1759. It is thwarted by mysterious belts or bands of yellowish tinge, and is surrounded by a double ring—the outer one of which is 204,000 miles in diameter. The outside diameter of the inner ring is 184,000 miles, and the

breadth of the outer one being 7200 miles, the space between them is 28,000 miles. The breadth of the inner ring is much greater than that of the other, being 20,000 miles; and its distance from the body of Saturn is more than 30,000. These rings are opaque, but so thin that their edge has not until now been discovered. Sir John Herschel's most interesting discovery with regard to this planet is the demonstrated fact that these two rings are composed of the fragments of two destroyed worlds, formerly belonging to our solar system, and which, on being exploded, were gathered around the immense body of Saturn by the attraction of gravity, and yet kept from falling to its surface by the great centrifugal force created by its extraordinary rapidity on its axis. The inner ring was therefore the first of these destroyed worlds (the former station of which in the system is demonstrated in the argument which we subjoin), which was accordingly carried round by the rotary force, and spread forth in the manner we see. The outer ring is another world exploded in fragments, attracted by the law of gravity as in the former case, and kept from uniting with the inner ring by the centrifugal force of the latter. But the latter, having a slower rotation than the planet, has an inferior centrifugal force, and accordingly the space between the outer and inner ring is ten times less than between the inner ring and the body of Saturn. Having ascertained the mean density of the rings, as compared with the density of the planet, Sir John Herschel has been enabled to effect the following beautiful demonstration. [Which we omit, as too mathematical for popular comprehension."—*Ed. Sun.*]

"Dr. Herschel clearly ascertained that these rings are composed of rocky strata, the skeletons of former globes, lying is a state of wild and ghastly confusion, but not devoid of mountains and seas. The belts across the body of Saturn he has discovered to be the smoke of a number of intense volcanoes, carried in these straight lines by the extreme velocity of the rotary motion. [And these also he has ascertained to be the belt of Jupiter. But the portion of the work which is devoted to this subject, and to the other planets, as also that which describes the astronomer's discoveries among the stars, is comparatively uninteresting to general readers, however highly it might interest others of scientific taste and mathematical acquirements."—*Ed. Sun.*]

"It was not until the new Moon of the month of March, that the weather proved favorable to any continued series of lunar observations; and Dr. Herschel had been so enthusiastically absorbed in demonstrating his brilliant discoveries in the southern constellations, and in constructing tables and catalogues of his new stars, to avail himself of the few clear nights which intervened."

"On one of these, however, Mr. Drummond, myself, and Mr. Holmes, made these discoveries near the Bay of Rainbows, to which I have somewhere briefly alluded. This bay thus fancifully denominated is a part of the northern boundary of the first great ocean which I have lately described, and is marked on the chart with the letter O. The tract of country which we explored on this occasion is numbered 6,5,8,7, in the catalogue, and the chief mountains to which these numbers are attached are severally named Atlas, Hercules, Heraclides Verus, and Heraclides Falsus. Still farther to the north of these os the island circle called Pythagoras, and numbered 1; and yet nearer the meridian line is the mountainous district marked R, and called the Land of Drought, and Q, the Land of Hoar Frost; and certainly the name of the latter, however theoretically bestowed, was not altogether inapplicable, for the tops of its very lofty mountains were evidently covered with snow, though the valleys surrounding them were teeming with the luxuriant fertility of midsummer. But the region which we first particularly inspected was that of Heraclides Falsus (No. 7), in which we found several new specimens of animals, all of which were horned and of a white or grey color, and the remains of three ancient triangular temples which had long been in ruins. We thence traversed the country southeastward, until we arrived at Atlas (No. 6), and it was one of the noble valleys at the foot of this mountain that we found the very superior species of the Vespertilio-homo. In stature they did not exceed those last described, but they were of infinitely greater personal beauty, and appeared in our eyes scarcely less lovely than the general representations of angels by the more imaginative schools of painters. Their social economy seemed to be regulated by laws or ceremonies exactly like those prevailing in the Vale of the Triads, but their works of art were more numerous, and displayed a proficiency of skill quite incredible to all except actual observers. I shall, therefore, let the first detailed account of them appear in Dr. Herschel's authenticated natural history of this planet…."

The real mystery of the Great Moon Hoax concerns the identity of the author. Most claim it was Richard Adams Locke, a Cambridge-educated reporter who, in August 1835, was working for *The Sun*. Locke never publicly admitted to being the author, while rumors persisted that others were involved. Two other men have been noted in connection with the hoax: Jean-Nicolas Nicollet, a French astronomer traveling in America at the time (though he was in Mississippi, not New York, when the Moon-hoax issues appeared), and Lewis Gaylord Clark, editor of *The Knickerbocker*, a literary magazine. However, there is no good evidence to indicate that anyone but Locke was the author of the hoax.

Assuming that Richard A. Locke was the author, his intentions were probably, first, to create a sensational story which would increase sales of *The Sun*, and, second, to ridicule some of the more extravagant astronomical theories that had been published. The fantastic story, though too wild to be true, garnered a healthy following for the newspaper, and even Sir John Herschel found it amusing—until he later had to answer questions from readers who thought the story was serious. The articles where published under the name Dr. Andrew Grant, who described himself as the traveling companion and laborer of Sir John Herschel, but Dr. Grant was fictitious. The story was not discovered to be a hoax until several weeks after its publication, and even then the newspaper did not issue a retraction. Eventually it was announced that the huge telescope used for the observations had caught a glimpse of the Sun, magnified the beams and the observatory caught fire, terminating any further views of the fantastic landscapes on the Moon.

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