

DICTIONARY *of*
ASTRONOMICAL
NAMES

Adrian Room

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He telleth the number of the stars;
he calleth them all by their names.

(*Psalm 147: 4*)

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INTRODUCTION

Ever since man evolved as *Homo sapiens*, millions of years ago, he has also been *Homo curiosus*, 'inquiring man', and one of the unceasing objects of wonder for him has been the universe around him, all that is 'up there' in the sky and beyond, all that is unknown and still largely uncharted territory.

There is much to marvel at, indeed. There is the daily Sun, with its heat and light, and the nightly Moon, with its associated cold and pale illumination. There are the stars, also nightly visitors, some apparently near and some far, some large and bright and others small and faint, some isolated and easily distinguishable and others fused in a blurred luminous mass, some seemingly emitting a steady light and others ceaselessly flickering and twinkling. (It was later that the 'untwinkling' stars were discovered to be different bodies, and were designated as planets.) Then there are the irregular visitors, the comets and meteors and seasonal visual phenomena, making an impressive and often spectacular appearance in the night sky, and serving to increase man's wonderment and curiosity.

All these remote but fascinating bodies were undoubtedly powerful and influential, too. Not only did they appear and process with predictable patterns, but also they clearly influenced much of the natural world in which man himself lived. The regular phenomena of day and night, light and darkness, summer and winter, high tide and low tide, growth and decay, was surely governed by these powerful heavenly creations, themselves subject to, and even part of, the supreme will of a divine guiding force.

Gradually, with the advance of science and a more sophisticated and objective reasoning, man came to realise that many of his earlier suppositions and attitudes about the nature of the universe had been incorrect. For a start – what a start it was! – man determined that his world was not, after all, the centre of the universe,

Introduction

with all the other bodies revolving and wheeling round it, but that it was, in turn, one of a smallish number of similar bodies that itself revolved round the Sun. The Sun, too, was discovered to be a star, and the Moon found to have its equivalent for other planets that orbited the Sun.

It was therefore necessary to modify the terminology in many ways with regard to the night sky and its phenomena, and some of the original 'stars' are now called 'planets', while so-called 'shooting stars' are today mostly correctly referred to as 'meteors'.

More radically, it became necessary to distinguish between 'astronomy' on the one hand, and 'astrology' on the other. Formerly, 'astrology' was a term that embraced what is known as 'astronomy' today, and was itself subdivided into 'natural astrology', which concerned itself with calculating the movements of the heavens, and 'judicial astrology', which studied the supposed influences of 'heavenly bodies' on human life and destiny, much as 'astrology' continues to do in its modern form.

It was the stars, and the groupings of stars, that particularly awed and fascinated the ancient astrologers, especially when they were in some way different or remarkable from their fellows. It was obvious that names would have to be devised for such stars and star clusters, names that would somehow be appropriate for their appearance or 'performance' or supposed influence. The heavenly bodies that are called 'Sun' and 'Moon', in whatever language, are clearly very different from other celestial creations, and although the Moon itself later came to acquire its own nomenclature for the different features that could be observed on it, it was first and foremost the stars that needed names. From the earliest times, too, the stars were found to have a practical value as well as a supposed influential one, because when travelling, to this place or that, people could 'follow a star' in order to go in the required direction. Even today, in the sophisticated space age, stars are still important for direction-finding for travellers of all kinds, whether their medium is sea, air or the cosmos. So here was another good reason to name the stars!

All round the world, in different lands, people devised different names in different tongues for what they saw in the night sky. (Recent studies have shown, fascinatingly, that some of the names given by quite unrelated peoples were essentially the same, with Chinese star names, for example, identical to those given by the native Indians of the American continent.)

The oldest astronomical (or astrological) names, and the ones

that are still familiar to many today; are those of the signs of the zodiac, which are not only designations for particular belts of the heavens, but also remain as names for the constellations originally in those belts, still picturesquely evoking the outline of the figure observed there. (At one time, the signs actually corresponded to the constellations in front of which the Sun appeared to pass in its yearly path round the heavens. Today, however, the signs of the zodiac and the constellations, although sharing the same name, are quite distinct, and now the sign of the zodiac called Aries, for example, is located among the stars of the constellation of Pisces. For a modern astrologer to talk of the 'Sun entering Aries' on a particular date is thus quite different from an astronomer speaking of its entering the constellation of the name on a certain date.)

The constellation names in fact came first, and were devised, it is believed, some time in perhaps the fourth millennium BC by the Sumerians, a Middle Eastern people. They could see the pictorial outline of a ram in what became the constellation of Aries, for instance, and an archer with his bow in what later became the constellation of Sagittarius. Much later, the Ancient Greeks translated the names and evolved an arrangement that divided the heavens into twelve belts, each named after a constellation and occupying one-twelfth (that is, 30°) of the so called 'great circle'. The Greeks called their scheme *zodiakos kyklos*, literally 'circle of animals', because with one exception each band contained a constellation that was itself named after an animal or a living creature. (There are seven 'animal' names proper, corresponding to English Ram, Bull, Crab, Lion, Scorpion, Goat and Fishes; the other four are human figures, known in English as the Twins, the Virgin, the Archer and the Water Carrier.)

The only exception here is Libra, the Balance (or the Scales). How did it come about that eleven of the signs of the zodiac have 'animal' names, but only one a 'non-animal' name? And why a Balance? The answer is a straightforward one. The ancient astrologers noticed that when the Sun passed before this particular group of stars in the sky, it did so at the time of the year when the day was equal in length to the night. In other words, it did so at what we now call the autumnal equinox. Hence the 'Balance' that symbolised the equal value in time of night and day. (For an explanation of this and similar technical terms, see the *Astronomical Glossary* on pp. 31-47.)

The Greek names were then translated by the Romans in the Latin forms familiar to us today. Later still, each sign of the zodiac

(or its constellation name) was assigned a particular symbol, such as the two parallel wavy lines for Aquarius. These appear to have arisen some time in the Middle Ages. For an explanation of their possible interpretation, see the Glossary.

The actual size and number of the zodiacal constellations, incidentally, originally varied considerably, and it was the Greeks who established the number as twelve (that is, twelve belts of 30° each to give the great circle total of 360°) and thus determined their names as these particular ones. Ptolemy, in the second century AD, recognised forty-eight constellations, and since his time further constellation names have been added, making a fixed total today of eighty-eight. We shall consider these again in due course.

The peoples of the Middle East, in the earliest days, also named individual stars, and many of these are still popularly known today in their Arabic form, or at least in a version that to some degree represents the original Arabic. Most of us will have heard or read of Vega, Betelgeuse and Aldebaran, for example, if only in science fiction or 'space adventure' tales or films. However, by no means all stars names are Arabic, and very many are Greek or Latin, so that we now have something of a pot-pourri of astronyms to savour and remember. Among well-known Greek names, for example, are Sirius, Procyon and Arcturus, and Latin names include Polaris, Capella and Regulus.

Another familiar star name to many is Proxima Centauri, which is a mixture of Latin and Greek, meaning 'nearest one of Centaurus', the latter word being the name of the constellation, and a reminder that although the majority of current constellation names are Latin, many are Greek in origin, and relate to characters and incidents in classical mythology. (Other Greek constellation names are Boötes, Hydra, Monoceros and Ophiuchus. It is fair to say, though, that the Romans simply adopted these in Latinised form rather than translating them.)

The name of Proxima Centauri is also a reminder that very many stars, even the well-known Sirius and Polaris, have an alternative 'two-part' name like this, with the first word a letter of the Greek alphabet, and the second word the name of its constellation with the Latin genitive ending. 'Centauri' (meaning of 'Centaurus') is thus the second word in the alternative designation of all named stars in that constellation, so that its brightest star, named as Rigel Kentauri (which happens to be half-Arabic and half-Greek) is also Alpha Centauri. The latter type of name is the one that astronomers today mostly employ, and it is true to say that in many cases

the old Arabic or Greek or Latin names are used less and less, except for popular reference, or by latter-day namers who are looking for a suitable name with which to name something, whether a Sirius radio-microphone or a Polaris submarine. Moreover, the star that astronomers know usually as Beta Centauri, still appears in some astronomical maps and books by one or other of its *two* original names of Hadar or Agena, making a total of three different names. It can be seen, therefore, that astronomical names can be complex affairs, involving at least three ancient languages (Arabic, Greek and Latin)!

The links between the stories of classical mythology and the names of astronomy are easier to see in many of the non-zodiacal constellation names than in those that correspond with the signs of the zodiac. In fact, many constellation names are those of well-known mythological characters, such as Hercules, Perseus, Pegasus, Orion and Andromeda. All these are old names, and were among those recognised by Ptolemy. Names of individual stars that are those of mythological characters are much smaller in number, however, with the best known being those of the classical twins, Castor and Pollux. Even so, most of the old constellation names, even where not the same as those of the mythological personages, do connect fairly closely with the classical stories, and in a way are almost a 'visual aid', or at least a memory refresher, to the events contained in those stories. This is particularly true of the northern hemisphere, where the names are generally much more ancient than a large number of those of the southern skies. Their precise connections are told in the entries that follow in this Dictionary, but suffice it to say, for instance, that Aquila (the Eagle) represents the bird that accompanied Jupiter on his travels, that Sagitta was the Arrow shot by Hercules, and that in the southern hemisphere, Lepus, the Hare, lies at the feet of Orion, the mighty hunter. It is particularly pleasant when the names of two adjacent constellations combine to give an even more detailed and precise mythological picture. (Sagitta, the Arrow, for example, lies between Aquila, the Eagle, and Cygnus, the Swan, while also adjoining it is Hercules himself, the great classical hero who shot it, although some identify it with Cupid's bow.)

Apart from the ancient names of individual stars and constellations, some of the names of star formations in the night sky are equally historic, and equally famous. One of the best-known star patterns, for example, is that of the Plough, whose seven components form part of the constellation of Ursa Major. Not all

countries have seen the formation as that of a plough, however, and in many parts of Europe the depiction was seen as that of a cart or chariot, while in the Middle East the outline was seen to be that of a coffin. (The first of these images gave the alternative name of Charles's Wain.) Across the Atlantic, meanwhile, a common American name for the seven stars is the Big Dipper, that is, as a ladle with a long handle. Elsewhere, in other lands and by other tongues, the starry septet has been thought of as seven individuals of some kind, who have been designated by such collective names as the Seven Shiners, the Seven Sages, the Seven Bulls, the Seven Sleepers of Ephesus, the Seven Champions of Christendom, the Seven Little Indians, and indeed by almost any group name that features the magic and mystic number 'seven'. Alas, it has not proved practicable in this Dictionary to list the many alternative names that have been recorded for some of the best-known features of the sky.

Again, other familiar formation names are those of the Milky Way and the Galaxy, and these two names are in turn examples of the way in which certain ancient names have linguistic and lexical links, as well as narrative and pictorial ones. The name 'Milky Way' is an English translation, for instance, of Latin '*Via Lactea*', which in turn is a translation of Greek '*Kyklos Galaktikos*' (meaning 'milky circle'), based on the same Greek word for 'milk', *gala*, genitive *galaktos*, that gave not only Latin *lac*, genitive *lactis*, but also English 'galaxy'. 'Milk' thus runs through both names and both classical words. In other cases, an echo of one constellation name can be found in another, such as Sagitta and Sagittarius, Taurus and Centaurus (although one was all bull, and the other half horse), Serpens (from Latin *serpens*, 'snake') and Ophiuchus (from Greek *ophis*, 'snake'), Hydra and Hydrus, Canis Major (and Canis Minor) and Canes Venatici. However, in the case of the last two couples here, it is only the first name that is ancient, and the second name is that of a constellation added only in the seventeenth century. Even so, the linguistic link is there, perhaps even confusingly in some instances.

It should not be assumed, incidentally, that the Arabic star names were the originals. The Arabians themselves translated many names that had arisen in the Middle East before them. Many of these, as mentioned, have remained today in their Arabic form, while others have been first translated by the Greeks then translated by the Romans. In all instances, such Arabic names are included in the Dictionary under the respective entries for these names. To what

extent the Greeks actually originated any names, as against adopting them from 'ready-made' sources, is a matter that has still not been fully resolved even today by classical scholars. The originality of the Greek names ties in closely with the originality of the Ancient Greek myths, many of which are known to have been adopted from elsewhere, with the characters bearing different names in older languages. The whole subject is a complex one, and the identity of Aphrodite, for example, with an Asiatic goddess similar to Ishtar, the Babylonian goddess of love and war, who has been herself identified with the Canaanite Astarte, the Israelite Ashtoreth and the Arab god Athtar, is both involved and intricate. But the fact remains that it was the Greeks who made the constellation names familiar to the peoples of other lands, if only through Ptolemy's listing of forty-eight of them. Apart from the twelve zodiacal names, he recognised twenty-one names in the northern celestial hemisphere, and fifteen in the southern. These were respectively: (northern hemisphere) Ursa Major, Ursa Minor, Draco, Cepheus, Boötes, Corona Borealis, Hercules, Lyra, Cygnus, Cassiopeia, Perseus, Auriga, Ophiuchus, Serpens, Sagitta, Aquila, Delphinus, Equuleus, Pegasus, Andromeda, Triangulum; (southern) Cetus, Orion, Eridanus, Lepus, Canis Major, Canis Minor, Argo Navis, Hydra, Crater, Corvus, Centaurus, Lupus, Ara, Corona Australis, Piscis Australis. All these still exist in modern star maps and charts, with the exception of Argo Navis, which has now been subdivided into four smaller constellations. (See its entry for details of these.)

In speaking of ancient astronomical names, however, we have so far said nothing of a smaller but just as important group, whose own names are probably more familiar than any others. These are the names of the planets, those celestial bodies that, like our own Earth, comprise with their attendant satellites the Solar System, and that revolve round the Sun in ever-increasing and uniquely varying orbits. There are – at least, at present – nine known planets, and apart from the Earth their names, in order from the Sun, are Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune and Pluto. All names are well known from mythology, and all are familiar gods (and one goddess) with particular attributes or 'kingdoms'. At first glance, too, they all seem to be the names of Roman deities who have Greek equivalents. Thus Mercury corresponds to Hermes, Venus to Aphrodite, Mars to Ares, Jupiter to Zeus, Saturn to Cronos, Neptune to Poseidon, and Pluto to . . . To whom? He is the exception, because Pluto, the god of the underworld, was a

Greek god with no Roman equivalent. (The equivalent is not Hades, which is simply an alternative name.) But that is not all, for only the first five names are ancient, as only Mercury, Venus, Mars, Jupiter and Saturn are visible to the naked eye!

The fact of the matter is that the ancient astronomers (or astrologers) regarded seven heavenly bodies as 'planets'. These were (in the order of their accepted distance from the Earth) the Moon, Mercury, Venus, the Sun, Mars, Jupiter and Saturn. Hence the use of the phrase 'the seven planets' (magic 'seven' again) in medieval and even later writings. The five planets proper, however, were not originally known by their present names but by Greek names, and in Pythagoras' day (the sixth century BC) Mercury was called Stilbon (meaning 'shining one'), Venus was known as either Hesperos ('evening one') or Phosphoros ('light-bearing one') or Eosphoros ('bringer of the dawn'), Mars was Pyrois ('fiery one'), Jupiter was Phaethon ('glittering one'), and Saturn was Phainon ('shining one'). Venus had different names because the planet could be seen both in the evening (as Hesperos) and in the morning (as Phosphoros or Eosphoros), and was generally believed to be two distinct celestial bodies. (It was Pythagoras, in fact, who first proposed that these were actually one and the same body.)

It will be noticed that all these names are connected with light or heat (or both). Mercury was a 'shiner' or 'sparkler' because it always accompanied the Sun, and was regarded as a sort of 'spark' flying off it. Mars was 'fiery' because of its red colour, and Jupiter was 'glittery' because it was noticeably bright at night, when the even brighter Venus was not visible.

It was then the turn of Aristotle, in the fourth century BC, to introduce personal mythological names for the five planets, and he thus renamed Mercury as Hermes, Mars as Ares, Jupiter as Zeus and Saturn as Cronos. (To be precise, he referred to the five by terms translating literally as 'Hermes' star', 'Zeus's star' and so on, and it was only subsequently that the 'star' or planet was known by its deity name alone.) Then, when the Greeks realised that Venus was one and the same planet, they came to call it Aphrodite, and this name also occurs in the writings of Aristotle, as well as those of his teacher Plato.

Even the personal names carried something of a descriptive aura. Mercury, for example, is the 'fastest' planet, as the one with the shortest sidereal period, and Mercury (or Hermes) was the swift-footed messenger of the gods. Mars (or Ares) was the god of war, and so had a red colour that was apt for this role. Jupiter (or Zeus)

was given the name of the chief of the gods because the planet is the brightest in the sky (apart from Venus, which, as mentioned, is not visible at night when Jupiter is and, occasionally, Mars, which can sometimes outshine it). Saturn (or Cronos) follows Jupiter in order, as is appropriate for the god who in mythology was the father of Zeus. And Venus (Aphrodite) bore the name of the goddess of love, as was fitting for a heavenly body that appeared in the freshness of the morning or the romantic twilight of the evening. (Compare 'aubade' and 'serenade' for related concepts, as the terms for a romantic poem or song sung at either dawn or dusk respectively.)

The Greek names then passed to Ancient Rome, where they were translated by the names of those Roman deities who corresponded to the Greek, and these are the names that remain with us today for the planets, in many of the world's languages. For a period, though, the Romans believed Venus to be two separate bodies, as the Greeks had done, and so called the planet by two names, a 'morning' one and an 'evening' one. These were respectively Lucifer ('light-bringer') and Vesper ('evening one'). The final stage in planet-naming then followed considerably later, in modern times, although even then the names chosen for the three newly discovered planets, Uranus, Neptune and Pluto, were given in the same tradition and in the same manner as the ancient names. For their stories, and for further details on the names of the five original planets, see the appropriate entries in the Dictionary.

Astronomical names thus broadly divide into 'ancient' and 'modern', with the former category applying to the star, planet and other celestial group names that we have already considered. All other names are 'modern', which effectively means mostly seventeenth century or later, and applies in particular to the more recent constellation names of the southern skies and the names of the three outer planets in the Solar System just mentioned. 'Modern', too, is the category of name that must generally be used of two special types of astronomical name: those of the asteroids or minor planets, and those of features (such as craters) on the surface of the Moon. Of these two sizeable subgroups, the Moon names are generally the older, so as we are proceeding chronologically, we should consider them first.

Anyone who has looked at the Moon with just the naked eye will have observed that its surface has an irregular or 'blotchy' appearance, with some areas brighter and others darker. Fanciful Moon-gazers have discerned a 'man in the moon' as a sort of

composite figure formed from the surface features. (The most popular outline conjured up seems to have been that of a man leaning on a pitchfork, with this interpretation perhaps additionally prompted by the biblical tale about the man who 'gathered sticks upon the sabbath day' told in Numbers 15: 32-6.) But other observers of old saw the Moon, quite literally, as a sort of mirror image, albeit a pale and small one, of the Earth, and as having the same kind of natural features as its inhabited counterpart, that is, seas, plains, mountains and valleys. After all, what else could the variegated surface markings be? When Galileo perfected the already existing imperfect telescope and discovered craters on the Moon, and sketched what he saw through his new refracting lens, it seemed more likely than ever that the Moon's surface was similar in many ways to that of the Earth. And such features would clearly need to be named. . . .

However, although Galileo, in the sixteenth and seventeenth centuries, may have been the first selenographer, or Moon studier (in effect a sort of 'lunar geographer'), he was not the first selenonymist, or Moon-namer. That distinction went to the seventeenth-century Belgian astronomer, Michel Florent van Langren, who was sent by Isabella, Regent of the Netherlands, to Spain, where Philip IV appointed him Court Astronomer. On his map of the Moon, published in 1645, Langren introduced some three hundred names for the most prominent features, with the names themselves those of famous real or fictional personages, from biblical characters and saints to members of Philip IV's family and holders of high office in his court. These first names did not on the whole survive, however, and today only three still appear on modern lunar maps: the three craters Catharina (for St Catherine), Cyrillus (for St Cyril) and Theophilus (for St Theophilus). All three are close to one another in location.

Two years later, in 1647, the German astronomer Hevelius published his famous *Selenographia*, or atlas of the Moon, with detailed maps of the surface and entirely new names. He did not follow Langren's 'biographical' principle but instead transferred geographical names from the Earth, especially the old, historic ones. Thus his map had a 'Euxinus Pontus', or 'Euxine Sea', this being the ancient name of the Black Sea, and the present craters named Copernicus, Tycho, Thales and Endymion were named by him respectively as 'Sicilia Insula', 'Sina Mons', 'Sarmatici Montes' and 'Lacus Hyperboreus' otherwise Sicily, Mount Sinai, Carpathian Mountains and 'Northern Lake' (that is, Arctic Sea). Most of his

names have since fallen into disuse, as Langren's have, but like Langren's, one or two remain, among them the lunar mountain ranges still called the Alps and the Apennines. But although Langren had one or two 'watery' names on his earlier map, such as the 'Mare Astrologorum' or 'Sea of Astronomers' (today's Mare Frigoris, or 'Sea of Cold'), it was Hevelius who really put, quite literally, such names on the map. Before him, Leonardo da Vinci had suggested that the lighter-coloured markings on the Moon could represent areas of water, but now Hevelius gave areas – the darker-coloured ones, however – specific hydronyms or 'water names', using Latin words such as Oceanus ('ocean'), Mare ('sea'), Lacus ('lake'), Palus ('marsh') and Sinus ('strait'). This despite the fact that there is no water on the Moon! That such names have nevertheless become officially established can be shown by the fact that areas of the Far Side of the Moon, discovered only in the second half of the twentieth century, have also been given the names of 'seas', such as the Mare Ingenii (omitted from many modern maps) and Mare Moscoviense.

But it was the third 'Moon-namer' whose names were to survive in the greatest numbers. He was the Italian astronomer Francesco Grimaldi, whose map of the Moon, containing about three hundred names, was published in Naples in 1651, four years after Hevelius's own map.

Grimaldi was a student of the better-known Italian astronomer Giovanni Riccioli, and his map was published by Riccioli as part of the latter's work entitled *Almagestum Novum* or 'New Almagest', the second word deriving from the Arabic meaning 'the greatest', but given directly as a tribute to Ptolemy's great treatise on astronomy known as the *Almagest*. As it was Riccioli who was the overall author of the work, he usually gets the credit today for the Moon names that were actually introduced by Grimaldi, which is rather unfair. Be that as it may, it was these names that became established, and today over two hundred of them are still in use for lunar features. Mare Imbrium, Mare Crisium, Mare Nectaris, Mare Nubium, Mare Vaporum, Mare Tranquillitatis (the latter to become famous with the first Moon landing of Apollo 11 in 1969) – all these were names that first appeared on Riccioli's (Grimaldi's) map.

Not all of Riccioli's generic names have been retained, however. For example he (or Grimaldi) introduced a number of names called 'terrae', or 'lands', but these no longer exist, and his original 'Terra Grandinis' ('Land of Hail'), 'Terra Mannae' ('Land of Manna'),

and great 'Terra Caloris' ('Land of Heat') and 'Terra Sanitatis' ('Land of Health') have long since been expunged from the map, as have his 'Terra Vitae' ('Land of Life') and 'Terra Siccitatis' ('Land of Dryness'). Many of these names seem to have been designed to have an 'aqueous opposite', that is, a 'sea' name that contrasted with the 'land' one. These remain, such as the Lacus Mortis, or 'Lake of Death' to contrast with the now vanished 'Terra Vitae', and the Mare Frigoris, or 'Sea of Cold', as opposed to the original 'Terra Caloris'. But the effect of such dramatic contrasts is now lost, because one half of the pair is missing.

As to *why* there are no longer any 'Terrae' on the Moon, there are two good reasons. One is that the 'lands' were not really distinctive in the way that the darker-coloured 'seas' are, and they were in some cases almost too extensive in area. Second, the Latin word 'terra' gives the word in some languages that also translates as 'earth' (for example in French), and this is the name of our own planet! To have 'Earth' names on the Moon is thus inappropriate or even confusing.

Riccioli, like Langren, named a crater after himself, a large walled plain near the western limb (edge) of the moon. But because he did not believe in the Copernican theory, that the Earth revolves round the Sun, he showed his disapproval when he named a crater after him, and thus 'flung Copernicus into the Ocean of Storms'. And today it is in the Oceanus Procellarum that the prominent crater Copernicus remains.

In his naming of craters, Riccioli (that is, Grimaldi) made a major and orderly contribution to lunar nomenclature, unlike the earlier, more random system followed by Langren. Riccioli's names are biographical, like Langren's, and honour the famous, but in an altogether more appropriate and thoughtful way. For the craters of the Moon's northern hemisphere, he introduced the names of famous ancient philosophers and men of learning, especially astronomers, keeping the 'big' names for the larger craters, such as Aristotle, Archimedes, Aristarchus, Herodotus, Pythagoras, Plato and Thales. This inevitably involved considerable renaming, and Langren's craters named after St Athanasius, St Margaret and St Anthony, for example, now became respectively Plato, Ptolemy and Pliny. Nor did Riccioli (Grimaldi) overlook his immediate pioneering predecessors, and he assigned the names of both Langren and Hevelius to two craters.

Meanwhile he reserved the names of more recent scholars, those of the Renaissance, for the southern hemisphere, and it is here that