

## **Blue remembered hills.**

*...What are those blue remembered hills...?*

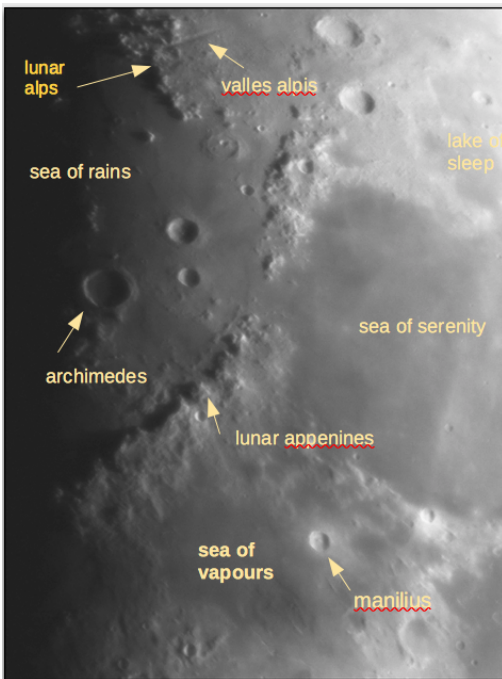
AE Houseman, A Shropshire Lad (excerpt)

As I have mentioned in previous blogs, I am effectively shut out of the lab during the COVID pandemic, in the sense that mandatory person-per-room limits mean I can't go in without displacing the group's PhD students and postdocs who need access more than I do. One symptom of this has been an increasing interest in scientific pottering at home. Obviously this is not in the sense of making any discovery, but just having the pleasure to be looking through eyepieces or at oscilloscope screens, and the total lack of any face-to-face social events, or open museums or galleries or gatherings of ancient machinery, means I have time for this that I never normally have.

All of this has made me put my faithful old telescope on its mount much more often, and with increased pleasure now that I have treated it to some modern eyepieces free of the terrible chromatic aberration of the originals. For many years, I tended to take the telescope out only on moonless nights, when the sky is dark enough for 'nebula bothering', because from teenage years I developed a soft spot for these wispy, diaphenous witnesses to the births and deaths of stars, and to the similarly dim forms of distant galaxies. But the increased 'itch' to use the instrument has meant that I have recently turned back to the neglected first object of my astronomical fascination, when I was given a small Tasco refractor at the age of about 9; the moon.

Looking again at its craggy geography ('selenography?') was a strange experience, a little like the one I had a few years ago when I was invited to give a talk at the University of Swansea, and drove on afterwards to walk part of the Gower coast. This was the place of my birth but I had not seen it for 40 years, and it was both completely familiar and mysterious at the same time, almost to different parts of my mind. In childhood, I spent hours looking at the moon, trying to learn may way round, and relating what I was seeing to the backdrop of the Apollo missions, particularly the later ones that went to the areas that included mountains large enough to be seen even in my 1.5-inch telescope. Looking again now, with a much larger and easier to use instrument, I again had the odd feeling of encountering a landscape from childhood, one whose proportions memory had distorted, but whose features were still recognizable. There were the flat plains, all given fanciful names 'seas'

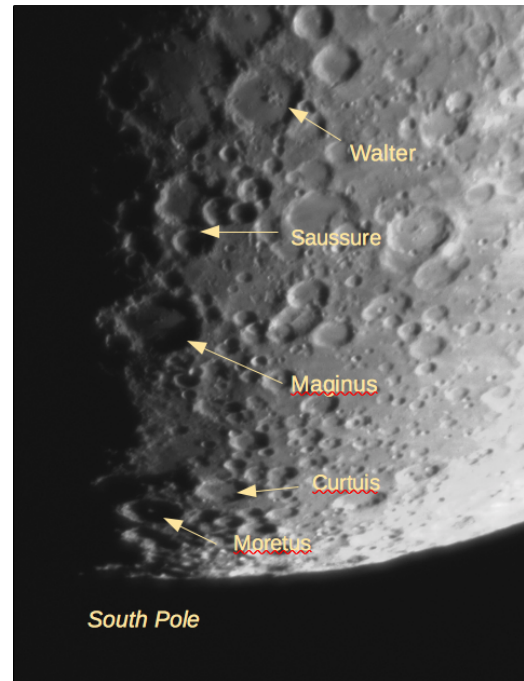
and 'bays' and 'lakes' by early cartographers who must surely have known from their appearance that they contained no water, but whose names layered a wonderful mythical quality over the hard rocks. And the names are far from random, in the sense that they make some whole areas of the moon sound peaceful (sea of tranquility, lake of sleep) and other far from it (sea of crises, ocean of storms). Then there are the mountain ranges, most named after counterparts on Earth, and of course



These two photos are taken at the prime focus of my quarter-century-old Newtonian reflector, and represent pretty well the views I get directly at the eyepiece.

The left-hand photo is of the area a little NE of the centre.

The right-hand one is of the Southern Highlands.



the craters, named after scientists who played a major role in the development of astronomy (mainly).

I remembered the features much better than I thought I would (funny how what one learns in childhood gets 'burned in'). Seeing Valles Alpīs (top left of left-hand photo) was especially exciting because I remember being especially fascinated by that feature as a kid, perhaps because it is so easy to image walking west along that canyon with the alps rising more and more above, much as one might walk up a terrestrial river valley deeper and deeper into a range of mountains. I even found I could remember some of the names (but not all - I had to look up many of the crater names I added to the pictures above, especially those in the Southern Highlands, perhaps because they refer to people whose names are completely unfamiliar to me (Archimedes, in the north, is much easier to remember: you can almost imagine his crater being filled like a bath!)).

Looking at the moon - indeed poking about with telescopes and microscopes in general - carries an important reminder. Research scientists as a tribe tend to be obsessed with the new, with the

forefront, with discovering something about nature that was now known before. That is, after all, what we are employed to do. But it can be good to look again at things that have been known for decades or centuries, not to try to discover something new about them, but just for the sheer joy of seeing them. Wonder need not be restricted to the new, and echoes of the wonder of formative years can still sound loud when we look once more at the things that provoked it.

There was nothing sad about the experience, which is why I used only that one line of Houseman's poem and not the wistful ones flanking it; more a reassuring continuity which, in these weird times, was especially welcome.

I am looking forward, though, to looking once again through the eyepieces of my research microscopes in the lab, at things that are familiar to nobody because they have never been seen before.

Jamie Davies, East Lothian, February 2021