

able. The moon's disk subtends an angle of about half a degree, and mapping the lunar surface into 360 degrees of latitude and longitude, a lunar degree at the centre of the disk measures nearly 19 miles. Little that man has wrought on earth, could his most gigantic work be transferred to the moon, would attract much if any notice at the earth's distance, though if man's handiwork would pass unnoticed, no important lunar formation could now disappear or be materially changed, and elude detection. At the centre of the moon's disk, one second of arc equals 1.1585, more than one and a tenth English miles. What portion of the star-sphere a second of arc covers may be realized by calling to mind, a linear foot subtends a second of arc at 39 miles distance, and that the pole-star and its companion are 18 seconds of arc apart.

In the present stage of research there is divergence of opinion on many questions of lunar physics, though not more than might be expected from independent investigation. Bessel estimated the moon's atmosphere to be a thousandth the density of that of the earth, while Neison considers it to be greater than Bessel's estimate. Nasmyth, on the other hand, concludes that the moon is devoid of water, atmosphere and soil, and excepting contraction and expansion of the lunar crust from change of temperature, he thinks the moon now undergoes but little change. That there is great variation of temperature on the moon's surface from exposure for half a lunation to the sun, and from radiation of lunar heat into space for a like period admits of no doubt. The six foot speculum of Earl Ross' great telescope was, some years since, used for investigating the probable temperature of the moon. Earl Ross considered his researches tentative, and results approximate only. From his experiments and observations it was concluded that the difference between maximum and minimum temperature at the moon's surface is 200 degrees Centigrade. This difference in temperature between lunar mid-day and midnight was computed from measurement of the moon's radiant heat. This agrees in part with Sir John Herschel's estimate of the moon's climate. He writes: "The lunar day is one of unmitigated burning sunshine, fiercer than an equatorial noon, continued for a time equal to our fortnight, and the lunar night is a period of the keenest severity of frost, exceeding that of our polar winter, and of the same length as the lunar day."