

to them. If then these are suns, they may, like our sun, have planets revolving round them; and these may, like our planet, be the seats of vegetable and animal and rational life:—we may thus have in the universe worlds, no one knows how many, no one can guess how varied:—but however many, however varied, they are still but so many provinces in the same empire, subject to common rules, governed by a common power.

But the stars which we see with the naked eye are but a very small portion of those which the telescope unveils to us. The most imperfect telescope will discover some that are invisible without it; the very best instrument perhaps does not show us the most remote. The number which crowds some parts of the heavens is truly marvellous. Dr. Herschel calculated that a portion of the milky way, about ten degrees long and two and a half broad, contained two hundred and fifty-eight thousand. In a sky so occupied, the moon would eclipse two thousand of such stars at once.

We learn too from the telescope that even in this province the variety of nature is not exhausted. Not only do the stars differ in colour and appearance, but some of them grow periodically fainter and brighter, as if they were dark on one side, and revolved on their axes. In other cases two stars appear close to each other, and in some of these cases it has been clearly established, that the two have a motion of revolution about each other; thus exhibiting an arrangement before unguessed, and giving rise, possibly, to new conditions of worlds. In other instances again, the telescope shows, not luminous points, but extended masses of dilute light, like bright clouds, hence called *nebulae*. Some have supposed (as we have noticed in the last book) that such *nebulae* by further condensation might become suns; but for such opinions we have nothing but conjecture. Some stars again have undergone permanent changes, or have absolutely disappeared, as the celebrated star of 1572, in the constellation Cassiopea.