

the stability of the system and the smallness of its disturbances, are all found in combination. Does not this imply both clear purpose and profound skill?

It is difficult to convey an adequate notion of the extreme complexity of the task thus executed. A number of bodies, all attracting each other, are to be projected in such a manner that their revolutions shall be permanent and stable, their mutual perturbations always small. If we return to the basin with its rolling balls, by which we before represented the solar system, we must complicate with new conditions the trial of skill which we supposed. The problem must now be to project at once seven such balls, all connected by strings which influence their movements, so that each may hit its respective mark. And we must further suppose, that the marks are to be hit after many thousand revolutions of the balls. No one will imagine that this could be done by accident.

In fact it is allowed by all those who have considered this subject, that such a coincidence of the existing state with the mechanical requisites of permanency cannot be accidental. Laplace has attempted to calculate the probability that it is not the result of accident. He takes into account, in addition to the motions which we have mentioned, the revolutions of the satellites about their primaries, and of the sun and planets about their axes: and he finds that there is a probability, far higher than that which we have for the greater part of undoubted historical events, that these appearances are not the effect of chance. 'We ought, therefore,' he says, "to believe, with at least the same confidence, that a primitive cause has directed the planetary motions."

The solar system is thus, by the confession of all sides, completely different from any thing which we might anticipate from the casual operation of its known laws. The laws of motion are no less obeyed to the letter in the most irregular than in the most regular motions; no less in the varied circuit of the ball which flies round a tennis court, than in the going of a clock; no less in the fantastical jets and leaps which breakers make when they burst in a corner of a rocky shore, than in the steady swell of the open sea. The laws of motion alone will not produce the regularity which we admire in the motions of the heavenly bodies. There must be an original adjustment of the system on which these laws are to act; a selection of the arbitrary quantities which they are to involve; a primitive cause which shall dispose the elements in due relation to each other, in order that regular recurrence may accompany constant change; that perpetual motion may be combined with perpetual stability; that derangements which go on increasing for thousands and for millions of years may finally cure them selves; and that the same laws which lead the planets slightly aside from their paths, may narrowly limit their deviations, and bring them back from their almost imperceptible wanderings.

If a man does not deny that any possible peculiarity in the disposition of the planets with regard to the sun could afford evidence of a controlling and ordering purpose, it seems difficult to imagine how it could look for evidence stronger than that which they actually is. Of all the innumerable possible cases of systems, governed by the existing laws of force and motion, that one is selected which alone produces such a steadfast periodicity, such a constant average of circumstances, as are, so far as we can conceive, necessary conditions for the existence of organic and sentient life. And this selection is so far from being an obvious or easily discovered means to this end, that the most profound and attentive consideration of the properties of space and number, with all the appliances and aids we can obtain, are barely sufficient to enable us to see that the end is thus secured, and that it can be secured in no other way. Surely the obvious impression which arises from this view of the subject is, that the solar system, with its adjustments, is the work of an intelligence, who perceives, as self-evident, those truths, to which we attain painfully and slowly, and after all imperfectly; who has employed in every part of creation refined contrivances, which we can only with effort understand; and who in innumerable instances, exhibits to us what we should look upon as remarkable difficulties remarkably overcome, if it were not that, through the perfection of the provision, the trace of the difficulty is almost obliterated.—*Whewell*.

THE UNIVERSE.—We look upon the universe, its immeasurable spaces, and its innumerable spheres, as a fully expressed symbol of Power, but as a partially expressed symbol of Wisdom;—we say partially, because it is hardly at all by the eye, and only in degree by the inferences of science, that the construction of this stupendous work is at present cognizable. But we do not forget that it is by accommodation to our own modes of thinking that we speak of the power and wisdom of God *distinctly*, and that, in truth, these attributes are relations only of the one undivided and undisguished Infinite Nature. This same celestial structure, therefore, could we examine it throughout, would be found to exhibit every other attribute, in act, with an equal or proportionate intensity. The power has not gone further than the wisdom; nor these further than the goodness, or the rectitude; and the universe is doubtless as great in every sense, as it is great in mere dimension, and in number of parts. It is as if, upon the palace wall of the Supreme, a hand were seen writing:—already it has written, in our view—'Power,' and partly 'Wisdom; but knowing whose name it is, of which this writing is the initial portion, we well know that the entire inscription must run on much further.—*Physical Theory of Another Life*.