

results in numbers, our conclusions seem, perhaps more than ever, removed from the grasp of sense. If we accept the theory (considered, by some of those who have most deeply studied it, as well established as the theory of gravitation) which derives the sensation of sight from vibrations propagated through an elastic ether, by the visible object to the eye: then is each beam of light but a part of a distinct system of vibrations, every wave of which diverges through space with a sustained velocity sufficient to carry it eight times round the earth in a single second, and each wave is followed by another at so short an interval, that 100,000 of them are packed within the space of every inch. Millions of such systems of vibrations pass, then, unceasingly through every point of visible space, yet without disorder and confusion: so that each system of waves goes on unobstructed by the others, preserving the individual powers impressed upon it, and through them ministering to the wants of millions of sentient beings.

Our knowledge of the complicated fabric of the material universe (even in those parts we sometimes describe as mere vacuities) does not end here. There is not a point in any portion of our system through which millions of material influences (implied indeed in the law of universal gravitation) are not constantly transmitted. That they differ from the subtile material action last considered is certain; yet no one will deny that they belong to some mode of material action, though he knows nothing of the mechanism whereby they are propagated and maintained.

Had there been any extended vacuities in the universe, it might, perhaps, have been said, that