ether. The former opinion has, till lately, been most generally entertained in this country, having been the hypothesis on which Newton made his calculations; the latter is the one to which most of those persons have been led, who, in recent times, have endeavoured to deduce general conclusions from the newly discovered phenomena of light. Among these persons, the *theory of undulations* is conceived to be established in nearly the same manner, and almost as certainly, as the doctrine of universal gravitation; namely, by a series of laws inferred from numerous facts, which, proceeding from different sets of phenomena, are found to converge to one common view; and by calculations founded upon the theory, which, indicating new and untried facts, are found to agree exactly with experiment.

We cannot here introduce a sketch of the progress by which the phenomena have thus led to the acceptance of the theory of undulations. But this theory appears to have such claims to our assent, that the views which we have to offer with regard to the design exercised in the adaptation, of light to its purposes, will depend on the undulatory theory, so far as they depend on theory at all.*

2. The impressions of sight, like those of hearing, differ in intensity and in kind. *Brightness* and *Colour* are the principal differences among visible things, as loudness and pitch are among sounds. But there is a singular distinction between these senses in one respect: every object and part of an object seen, is necessarily and inevitably referred to some *position* in the space before us; and hence visible things have place, magnitude, form, as well as light, shade, and colour. There is nothing analogous to this in the sense of hearing; for though we can, in some ap-

* The reader who is acquainted with the two theories of light, will perceive that though we have adopted the doctrine of the ether, the greater part of the arguments adduced would be equally forcible, if expressed in the language of the theory of emission.