

THE RIDDLE OF THE UNIVERSE

modern "theory of condensation," or the pyknotic theory of substance. It is most ably established in the suggestive work of J. C. Vogt on *The Nature of Electricity and Magnetism on the Basis of a Simplified Conception of Substance* (1891). Vogt assumes the primitive force of the world, the universal *prodynamis*, to be, not the vibration or oscillation of particles in empty space, but the condensation of a simple primitive substance, which fills the infinity of space in an unbroken continuity. Its sole inherent mechanical form of activity consists in a tendency to condensation or contraction, which produces infinitesimal centres of condensation; these may change their degree of thickness, and, therefore, their volume, but are constant as such. These minute parts of the universal substance, the centres of condensation, which might be called *pyknotoms*, correspond in general to the ultimate separate atoms of the kinetic theory; they differ, however, very considerably in that they are credited with sensation and inclination (or will-movement of the simplest form), *with souls*, in a certain sense—in harmony with the old theory of Empedocles of the "love and hatred of the elements." Moreover, these "atoms with souls" do not float in empty space, but in the continuous, extremely attenuated intermediate substance, which represents the uncondensed portion of the primitive matter. By means of certain "constellations, centres of perturbation, or systems of deformation," great masses of centres of condensation quickly unite in immense proportions, and so obtain a preponderance over the surrounding masses. By that process the primitive substance, which in its original state of quiescence had the same mean consistency throughout, divides or differentiates into two kinds.