120.00 **Mass Interattraction**

120.01 Synergy is disclosed by the interattraction for one another of two or more separate objects. But any two masses will demonstrate that halving the distance between them will fourfold their attraction for each other. (Which is the way Newton might have said it, but did not.) He discovered the mathematical gain in attraction, but he stated it "inversely," which is awkward and nonspontaneously illuminating. The inverseness led him to speak in terms of progressive diminution of the attraction: as the distance away was multiplied by two, the attraction diminished by four; ergo, he could speak of it as "squared." The attraction of one mass for the other increases as the second power of the rate of increase of their proximity to one another: halve the distance and the interaction is fourfolded.

121.00 Our senses are easily deceived because mass interattraction is not explained and cannot be predicted by any characteristic of any one massive body considered alone. Local observation of mass attraction is also obscured by the overwhelming presence of Earth's gravity. For instance, two 12-inch-in-diameter spheres of so dense a material as ivory do not appear to attract each other until they are only about a paper-thin distance apart. The thickness of a paper match superimposed on a 12-inch globe represents the point at which a rocket precesses into orbit, going from its 180-degree tendency to fall into its 90-degree orbital independence as an astronomical entity. This is the critical- behavior point at which it becomes an independent entity in Universe, a satellite. Small Earth satellites orbit at an altitude of only about 100 miles, which is only about 1/80th of the diameter of the Earth. This critical proximity event of transition from 180-degree to 90-degree independence is called precession. Mass attraction is also involved in precession, another member of the family of generalized principles. But scientists still have not the slightest idea why mass attraction occurs; they only know that it does. They do not know why. This requires admission of an utter a priori mystery within which the masses demonstrate their utterly mysterious attraction for one another. It appears that no single part of the Universe can predict the behavior of the whole. As we attain greater experience and opportunity to observe the synergetic effects of Universe, there is always a greater discernment of generalized principles. The discovery of a plurality of generalized principles permits the discovery of the synergetic effect of their complex interactions.

Next Section: 130.00