

new life is continually being evolved. Professor Huxley is quite in agreement with Spencer and Bastian as to the beginning of life, but appears to think that existing conditions of matter on the earth's surface are not favorable to new beginnings of life. Dr. A. Wilson sums up the question in the following words: "Although research has not as yet finally placed the puzzle of life and its solution at our feet, our inquiries have at least served to indicate the direction towards which modern scientific faith is slowly but surely tending. The search after a material cause for phenomena formerly regarded as thoroughly occult or supernatural in origin, is not a feature limited to life science alone. Such a characteristic of modern research indicates with sufficient clearness the fact that, as biology and physics become more intimately connected, the explanations of the phenomena of life will rest more and more upon a purely physical and appreciable basis. That life had a distinct beginning upon the earth's surface is proved by astronomical and geological deductions. That life appeared on this world's surface, not in its present fulness, but in an order leading from simple forms to those of an ever increasing complexity, is an inference which geology proves, and which the study of animal and plant development fully supports.

That the first traces of life existed in the form of protoplasmic germs, represented to-day by the lowest of animal and plant forms, or rather by those organisms occupying the debatable territory between the animal and plant worlds, is well nigh as warrantable a supposition as any of the preceding. And last of all, that these first traces of protoplasm were formed by the intercalation of new combinations of the matter and force already and previously existing in the universe is no mere unsupported speculation, but one to which chemistry and physics lend a willing countenance. Living beings depend on the outer world for the means of subsistence to-day. Is it more wonderful or less logical to conceive that at the beginning the living worlds derived their substance and energy wholly from the same source? The common origin of animal and vegetable life, and the further unity of nature involved in the idea that the living worlds are in reality the outcome of the lifeless past, constitute thoughts which leave no break in the harmony of creation."