

A SUMMARY OF THE MONERA FALLACY

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*During the second half of the previous century evolutionists tried to fill up the gap between matter and life by creating the group of the **Monera**. Defined as being extremely simple the **Monera** were assumed to support or even to prove spontaneous generation. Detailed descriptions of various **Monera** by foremost research workers overflowed the scientific literature.*

*However, little by little the **Monera** were discerned to be fallacious or false to the definition. In addition, prolonged research showed that even the most simple **Protista** are in fact inconceivably complex. Thus the gap between matter and life has widened and by that creationism proves to be justified on this issue.*

Introduction

In the year 1756 Immanuel Kant published his *Allgemeine Naturgeschichte und Theorie des Himmels*. In it he expressed an evolutionary system of cosmogeny. This system was authorized when in the year 1796 Pierre-Simon, marquis de Laplace, defended it in his *Exposition du systeme du monde*.

Something like it occurred with regard to the hypothesis of organic evolution. It was advocated by Jean-Baptiste-Pierre-Antoine de Monet de Lamarck in his *Philosophie zoologique* (1809). Later on, this hypothesis was popularized by Charles Darwin in his *The Origin of species by means of natural selection or the preservation of favoured races in the struggle for life* (1859).

Among the consistent advocates of the idea of evolution, the need was felt of connecting the evolutionary system of cosmogeny and the hypothesis of organic evolution; i.e., of bridging the gap between the inanimate matter and the living units. So evolutionists undertook to prove the origin of life from lifeless matter (biogenesis, etc.) and to track some most simple form of life, still being as it were *in statu nascendi*.

However, shortly after the publication of Darwin's *The Origin of Species*, the French biochemist Louis Pasteur dealt a heavy blow to the high expectations of the evolutionary-minded naturalists. In the course of the years 1860-1866 a number of papers by Pasteur on fermentation and *abiogenesis* were presented to the *Academie des sciences*.

The main report was published in 1861 under the title: "Memoire sur les corpuscles organiques qui existent dans l'atmosphere. Examen de la doctrine des generations spontanees."¹ Till then it was believed that a microbe could originate from organic materials during fermentation, putrefaction etc.—a belief which implied *abiogenesis*. Pasteur proved by a variety of ingenious and cogent experiments that each microbe is

derived from a pre-existing microbe and that *abiogenesis* is a chimera.²

Evolutionists Support *Abiogenesis*

For all that, a number of ardent Darwinian naturalists did not lose courage in seeking after some most simple form of life, still being as it were *in statu nascendi*. Among them were "Darwin's bulldogs," viz., Thomas Henry Huxley and Ernest Haeckel. In order to establish *abiogenesis* these evolutionists made a mistake practically beyond compare.

In his *Generelle Morphologic der Organismen. Allgemeine Grundzuge der organischen Formen-Wissenschaft, mechanisch begrundet durch die von Charles Darwin reformirte Descendenz-Theorie* (1866), Haeckel created the group of the *Monera*. This name was conferred upon some most simple *Protista*, the sarcode or protoplasm of which was conceived to be entirely homogeneous and to lack a nucleus.

Particularly, Haeckel broached the *Monera* in order to bridge the gap between the inanimate matter and the living units.³ Shortly after in 1868, a monograph by Haeckel on the *Monera* was published, entitled: "Monographie der Moneren."⁴ In it Haeckel described in detail a number of *Monera*, among them the most simple *Moneron* which he had called before *Protamoeba primitiva*. Its minuscule body was said to be entirely homogeneous and to reproduce itself by process of fission (Figure 1).⁵

Also, in the year 1868, Huxley published a report, entitled: "On some Organisms living at Great Depths in the North Atlantic Ocean."⁶ In it he dealt with a number of samples of deep-sea mud dredged up from the Atlantic. The samples were preserved in alcohol—a circumstance, which later will appear essential. In the Atlantic mud, Huxley discerned some minuscule bodies, which he had called before "coccolithes" and of which he then had declared that they cannot be organic. He divided the *coccolithes* in "discolithes" and "cyatholithes."

In addition to the *coccolithes*, other bodies, known by the name of "coccospaeres," occurred. The minuscule bodies were imbedded between some granules in a gelatinous matter. Of this

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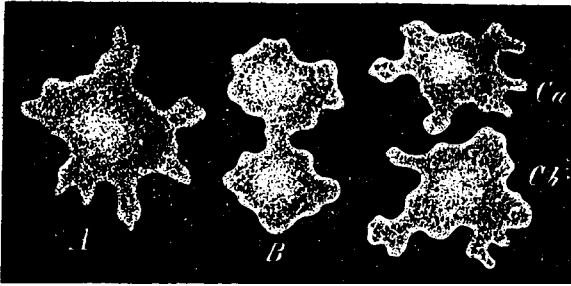


Figure 1. *Protamoeba primitiva* (Haeckel). This pretended *Moneron* turned out to be non-existent (From: Haeckel: *Natürliche Schöpfungsgeschichte*, First Edition, p. 144, Figure 1).

Huxley assumed that it represented a mass of protoplasm and he took this for a *Moneron*; by reason of its habitat he called the mass *Bathybius* (Figure 2). The *coccolithes* were supposed to be produced by the *Bathybius* "Urschleim." Huxley stated:

I conceive that the granule-heaps and the transparent gelatinous matter in which they are imbedded represent masses of protoplasm. Take away the cysts which characterise the *Radiolaria*, and a dead *Sphaerzoum* would very nearly resemble one of the masses of this deep-sea "Urschleim," which must, I think, be regarded as a new form of those simple animated beings which have recently been so well described by Haeckel in his "Monographie der Moneren." I proposed to confer upon this new "Moner" the generic name of *Bathybius*, and to call it after the eminent Professor of Zoology in the University of Jena, *B. Haeckelii*.

From the manner in which the youngest *Discolithi* and *Cyatholithi* are found imbedded among the granules; from the resemblance of the youngest forms of the *Discolithi* and the smallest "corpuscles" of *Cyatholithus* to the granules; and from the absence of any evident means of maintaining an independent existence in either, I am led to believe that they are not independent organisms, but that they stand in the same relation to the protoplasm of *Bathybius* as the spicula of Sponges or the *Radiolaria* do to the soft part of those animals.⁷

At that time there was a controversy in regard to the nature of supposed organic structures, discovered in the serpentine limestones of the Laurentian series in Canada. The Canadian geologist John William Dawson described these structures as those of a gigantic *Foraminifer*; on it he conferred the name *Eozoon Canadense*. Dawson's view was shared by the English naturalist William Benjamin Carpenter. Instantly, the newly discovered *Moneron B. Haeckelii* was invoked

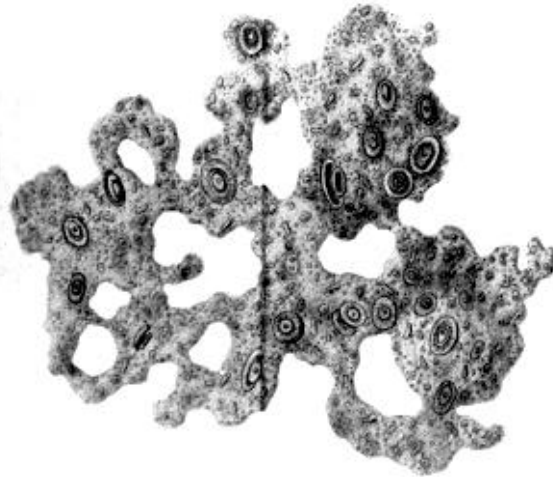


Figure 2. *Bathybius Haeckelii* (Huxley). This pretended *Moneron* appeared to be a mineral precipitate. The coccolithes, presumed to be produced by the glairy mass, turned out to be settled fragments of the *Coccolithophoridae*. (From: *Jenaische Zeitschrift*, 5. Band, Taf. XVII, Figure 1).

to warrant the gigantic size of *Eozoon Canadense*, Carpenter stated:

the discovery of this indefinite plasmodium covering a wide area of the existing seabottom should afford a remarkable confirmation, to such (at least) as still think confirmation necessary, of the doctrine of the organic origin of the serpentine limestone of the Laurentian formation. For if *Bathybius*, like the testaceous Rhizopods, could form for itself a shelly envelope, that envelope would closely resemble *Eozoon*. Further, as Prof. Huxley has proved the existence of *Bathybius* through a great range, not merely of depth but of temperature, I cannot but think it probable that it has existed continuously in the deep seas of all geological epochs.⁸

Later on, however, it has been recognized that the supposed organic structures are of mineral origin.

The existence of *B. Haeckelii* was affirmed by the English naturalist Sir Charles Wyville Thomson, who, later on, conducted the civilian staff of the expedition with H. M. S. "Challenger." In an 1869 article, "on the Depths of the Sea,"⁹ Wyville Thomson contended in regard to a sample of mud from the Atlantic:

This mud was actually alive; it stuck together in lumps, as if there were white of egg mixed with it; and the glairy mass proved, under the microscope, to be a living sarcode. Prof. Huxley regards this as a distinct creature, and calls it "Bathybius."¹⁰

Wyville Thomson dealt with *B. Haeckelii* more

in detail in his renowned book entitled: *The Depths of the Sea, Etc.* (1873).¹¹

The report on the occurrence of free albumen masses in the deep-sea was suited remarkably well to the philosophy of a universal transformism and to the implicit idea of *abiogenesis*. The report was enthusiastically received by the supporters of this philosophy; at last, nascent life was detected!

Haeckel *et al.* Support Huxley's Work

Above all others Haeckel contributed to the newly discovered *Moneron*, the species of which was dedicated to him. In his "Beitrage zur Plastidentheorie,"¹² he confirmed in 1870 Huxley's assertions in this matter and enlarged his report in some ways ("Im Wesentlichen kann ich alle Angaben von Huxley bestätigen, doch auch nach einigen Richtungen hin dieselben vervollständigen und erweitern.")¹³

Haeckel analyzed a glass of deep-sea mud-placed in alcohol as well. The granules, imbedded in the gelatinous matrix, he conceived to be real protoplasm; for the granules coloured when treated with a carmine or a iodine solution. As to the *coccolithes*, Haeckel took it for likely, though not yet altogether proved, that they were produced by *B. Haeckelii*.

In a speech in 1870 entitled, "Das Leben in den grossten Meerestiefen,"¹⁴ Haeckel assured that it was almost incontestable that *B. Haeckelii* did originate by *abiogenesis* ("... dass die freien Urschleim-Körper des *Bathybius* sich an Ort und Stelle unter dem Einflusse der eigenthümlichen hier waltenden Existenz-Bedingungen aus anorganischer Substanz bilden").¹⁵ In general, he argued-evidently versus Pasteur—that the question of *abiogenesis* could not be answered by experiment, but solely by philosophy.

Well then, Haeckel's evolutionary philosophy, implying a process of *abiogenesis*, turned out to be true! The discovery of the *Monera* like *Protamoeba primitiva* and *B. Haeckelii* put the matter beyond doubt. Finally, the chasm between matter and life was filled up! In his widely read *Natürliche Schöpfungsgeschichte. Etc.* (Second Edition, 1870) Haeckel wordily expressed:

Sobald man früherhin die Vorstellung der Urzeugung zu fassen suchte, scheiterte man sofort an der organischen Zusammensetzung auch der einfachsten Organismen, welche man damals kannte. Erst seitdem wir mit den höchst wichtigen Moneren bekannt geworden sind, erst seitdem wir in ihnen Organismen kennen gelernt haben, welche gar nicht aus Organen zusammengesetzt sind, welche bloss aus einer einzigen chemischen Verbindung bestehen, und dennoch wachsen, sich ernähren und fortpflanzeln, ist jene Hauptschwierigkeit gelöst, und die Hypothese

der Urzeugung hat dadurch denjenigen Grad von Wahrscheinlichkeit gewonnen, welcher sie berechtigt, die Lucke zwischen Kant's Kosmogonie und Lamarck's Descendenztheorie auszufüllen. Es giebt sogar schon unter den bis jetzt bekannten Moneren eine Art, die vielleicht noch heutzutage beständig durch Urzeugung entsteht. Das ist der wunderbare, von Huxley entdeckte und beschriebene *Bathybius Haeckelii*.¹⁶ (English translation in note)

By more or less tacit consent it had been accepted that *B. Haeckelii* covered a vast part of the sea-bottom. In a speech in 1870 before the Royal Geographical Society Huxley,¹⁷ returning to the subject, emphatically signaled the general occurrence of his reputed discovery. In respect of *B. Haeckelii* he said:

Evidence of its existence had been found throughout the whole North and South Atlantic, and wherever the Indian Ocean had been surveyed, so that it probably forms one continuous scum of living matter girding the whole surface of the earth. This opinion had been confirmed in all its essential details by Prof. Haeckel, who had published an admirable account of specimens obtained by him.¹⁸

The discovery of the peculiar *Moneron B. Haeckelii* met with general favor. It was reported in 1871 in the *Archives des Sciences physiques et naturelles*¹⁹ and in no time it became a public property. Several foremost scientists set themselves to a detailed study of this conclusive *Moneron*.

In an 1870 article entitled "Vorläufige Mitteilungen über Tiefseeschlamm,"²⁰ the German geologist Carl Wilhelm von Gumbel made a communication relating to deep-sea mud—preserved by him in alcohol also. Gumbel stated that he had come to the conclusion, just like Huxley and Haeckel, that the *coccolithes* and *B. Haeckelii* were a living mass ("... dass auch mir kein Zweifel an der organischen Natur der *Coccolithen* und des *Bathybius* übrig blieb.")²¹

Besides, he maintained that *B. Haeckelii* was not confined to a bathyal environment; he had observed it in a paralic environment as well and so he was led to conclude that *B. Haeckelii* had a universal distribution ("... dass *Coccolithen* (*Bathybius*) in allen Meeren und in allen Meerestiefen vorkommen").²² Because of the occurrence of *coccolithes* in numerous limestones Gumbel stressed the lithogenetic importance of *B. Haeckelii*.

Gumbel's compatriot Oscar Schmidt made known in an 1870 article, "Über *Coccolithen* und *Rhabdolithen*,"²³ that, during an expedition in the Adriatic, he had met with *B. Haeckelii*.

Schmidt stated that in a fresh sample, *B. Haeckelii* behaved in like manner as when placed in alcohol ("Der frisch aus dem Meere gehobene *Bathybius* zeigt . . . genau jene Erscheinungen, welche die in Weingeist conservirten Proben wahrnehmen lassen").²⁴ In addition to the *coccolithes* Schmidt observed some bodies of hitherto undescribed characteristics, naming it "rhabdolithes." He, indeed, gave it as his view that the bodies were independent from *B. Haeckelii*.

A Still Lower *Moneron* Reported

At that time the existence of a still lower *Moneron* than *B. Haeckelii* was reported! It was discovered along the coast of Grinnell Land by the German naturalist Emile Bessels, both surgeon and naturalist to the U.S. Arctic expedition with the ship "Polaris." Bessels called it: *Protobathybius Robesonii*. Its existence was announced in 1874 in *Nature*²⁵ and a description of it by the discoverer was published in A. S. Packard's *Life histories of animals, including man or outlines of comparative embryology* (1876). The description by Bessels of *Protob. Robesonii* is as follows:

It is mainly distinguished from *Bathybius* by the absence of both the *Discolithes* and *Cyatholithes*. For this reason I take it to be an older form than *Bathybius*, whence the name given to it. It consists of nearly pure protoplasm, tinged most intensely by a solution of carmine in ammonia. It contains fine gray granules of considerable refracting power, and besides the latter a great number of oleaginous drops, soluble in ether. It manifests very marked amoeboid motions and takes up particles of carmine or other foreign substances suspended in the water in which it is kept. It hardly contained any foreign matter, except a fine sediment of limestone constituting the bottom of the sea.²⁶

It is beyond the scope of this summary to bring under close scrutiny all the numerous publications and references relating to the *Monera* and particularly to *B. Haeckelii*. I will only mention that the German geologist Karl Alfred von Zittel in his *Handbuch der Paleontologie* (First part, 1876) described the *Monera*, at the head of which class he placed *B. Haeckelii*.²⁷

About this time, however, the days of *B. Haeckelii* and its predecessor *Protob. Robesonii* came to an end—much though these *Monera* were a *conditio sine qua non* to any consistent hypothesis of evolution.

Criticisms Finally Published

Already the English naturalist G. C. Wallich, in an 1869 paper, "On the Vital Functions of the Deep-sea Protozoa,"²⁸ had objected to Huxley's discovery of *B. Haeckelii*. Wallich showed that

there is no connection between it and the *coccolithes* and that these peculiar bodies, whether *discolithes* or *cyatholithes*, are nothing more than the *disjecta membra* of the *coccosphaeres*, inhabiting the surface-waters of the ocean. Wallich summarized his objections in this matter in an 1875 paper, "On the true Nature of the so-called '*Bathybius*,' and its alleged Function in the Nutrition of the Protozoa."²⁹ He stated:

It has been shown that, whereas Prof. Huxley, in his original report, declared that the *coccoliths* "cannot be organic," I proved them to be organic; whereas he doubted their being the *disjecta membra* of the *coccosphaeres*, I proved them to be so; and whereas he alleged that they normally, as "*coccoliths*," "*discoliths*," or "*cyatholiths*," constitute part and parcel of the living thing to which he gave the name of *Bathybius*, I distinctly proved that the "*coccoliths*" have no physiological connexion with the viscid matter in which they are imbedded at the bottom of the sea, but are detached and normal appendages of *coccosphaeres* which have lived in the superficial waters of the ocean, and subsided to the bottom only after death.³⁰

Yet it was not until the twentieth century that the true nature of the *coccolithes* and the *rhabdolithes* was discerned. In the year 1902 the German biologist H. Lohmann made public an article on "Die *Coccolithophoridae*, eine Monographie der *Coccolithen* bildenden Flagellaten, etc."³¹ In it he put the matter beyond doubt that the *coccolithes* and the *rhabdolithes* are nothing more than settled fragments, which at one time formed part of the calcareous envelope of floating *Coccolithophoridae*, by which name he signified a class of flagellates (Figure 3).

At the end of the year 1872 an expedition was sent out with H. M. S. "Challenger" in order to make a series of soundings and dredgings in the three great ocean basins. In the early part of the cruise, attempts were made again and again to obtain *B. Haeckelii*; however, with no definite result. J. Murray, naturalist to the expedition, observed that a sample of deep-sea mud, when placed in alcohol, assumed the aspect of *B. Haeckelii*!!

Murray observed this phenomenon in such quantity that, if it was really of the supposed organic nature, the presence of organic matter should be easy to detect. However, J. Y. Buchanan, chemist to the expedition did not find satisfactory evidence of it. What had happened to the reputed *B. Haeckelii*? Buchanan concluded:

There remained, then, but one conclusion, namely, that the body which Mr. Murray

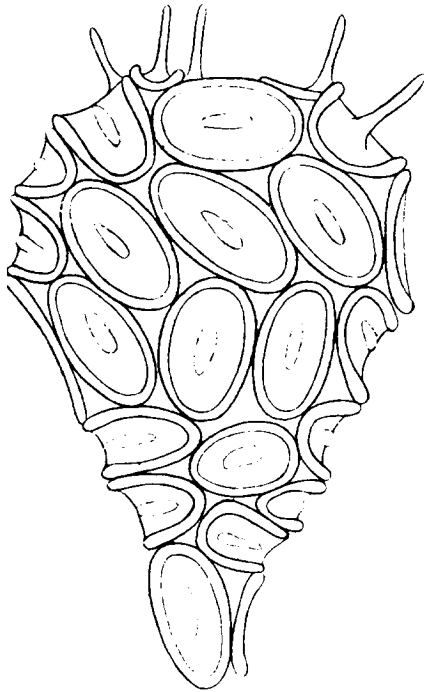


Figure 3. *Syracosphaera pulchra* (Lohmann). A representative of the *Coccolithophoridae*, a class of flagellates; the settled fragments of its calcareous envelope were claimed to be produced by the fictitious *B. Haeckelii*. (From: *Archiv der Protistenkunde*, I, Taf. IV, Figure 33).

had observed was not an organic body at all; and on examining it and its mode of preparation I determined it to be sulphate of lime, which had been eliminated from the sea-water, always present in the mud, as an amorphous precipitate on the addition of spirit of wine. The substance when analyzed consisted of sulphuric acid and lime; and when dissolved in water and the solution allowed to evaporate, it crystallized in the well-known form of gypsum, the crystals being all alike, and there being no amorphous matter amongst them.³²

In a letter³³ to Huxley by Wyville Thomson, dated June, 1875, the tragic end of *B. Haeckelii* was made known. It was suspected that the thing which Huxley had named was nothing more than a sulphate of lime, precipitated in a flocculent state by the *strong alcohol* in which the samples had been placed. Having read this letter, Huxley was highly inclined to drop *B. Haeckelii* as reposing on a delusion.

Case for *Abiogenesis* Destroyed

By this time, however, the fate of *B. Haeckelii* was not yet considered to be absolutely decided. This did not happen until the "Preliminary Reports to Professor Wyville Thomson, F. R. S.,

Director of the Civilian Scientific Staff, on Work done on board of the Challenger" of 1876 by Murray and that by Buchanan has been made public. In his reports Murray gave *B. Haeckelii* the "knock-out blow" where he informed:

In the early part of the cruise many attempts were made by all of the naturalists to detect the presence of free protoplasm in or on the bottoms from our soundings and dredgings, but with no definite result. It was undoubted, however, that some specimens of the sea-bottom preserved in spirit assumed a very mobile or jelly-like aspect, and also that flocculent matter was often present.

Mr. Buchanan determined that the flocculent matter was simply the amorphous sulphate of lime precipitated by spirit from the sea-water. Subsequently a number of experiments were made out upon the behaviour of this amorphous precipitate when precipitated with different quantities of spirit and when treated with colouring-solutions. The precipitate was also examined alone and mixed up with some of the ooze. The ooze was examined at the same time, and in the same manner, but without having been treated with spirit. The results were shortly these:-

When sea-water is treated with twice its volume of spirit or less, nearly the whole of the amorphous precipitate assumes the crystalline form in a short time.

When treated with a great excess of spirit the precipitate remains amorphous, and assumes a gelatinous aspect.

This gelatinous-like sulphate of lime colours with the carmine and iodine solutions, and when mixed with the ooze has, under the microscope, the appearances so minutely described by Haeckel.

The ooze washed with distilled water, or taken just as it comes up, and treated in the same manner with colouring-solutions, does not show these appearances. The jelly-like aspect and the matter coloured with carmine can always be removed from the spirit-preserved specimens of the ooze by treating with distilled water.

In all cases the jelly-like or mobile aspect of the ooze is found to be due to the presence of the flocculent precipitate from the sea-water associated with the ooze.

No free aluminous matter could be detected.

When it is remembered that the original describers worked with spirit-preserved specimens of the bottom, the inference seems fair that *Bathybius* and the amorphous sulphate of lime are identical, and

that in placing it amongst living things, the describers have committed an error.³⁵

Thus *B. Haeckelii*, the "Urschleim" from the sea-bottom, which was embraced by nearly all evolutionists of that day as bridging the gap between matter and life, turned out to be a pure mineral precipitate! In that way this most simple form of life, conceived to originate by *abiogenesis*, was wiped out of existence; and together with it the related form *Protob. Robesonii* made its exit.

Haeckel Refused to Concede

Yet Haeckel, in an 1877 paper on "Bathybius und die Moneren"³⁶, insisted that *B. Haeckelii* actually did exist. He only admitted that its geographical distribution was more confined than previously supposed, so that owing to this the H. M. S. "Challenger" expedition had not met with it. However, in spite of his insistence of the actual existence of *B. Haeckelii*, Haeckel suppressed it from the publications by him ever since that time. This proves Haeckel was less than forthright in advocating the case of evolution in this matter.

By tacit agreement the "Urschleim"-fallacy, obviously discrediting the hypothesis of evolution according to which the "Urschleim" had been postulated, was generally ignored. Of that time I have read but one paper in which the "Urschleim"-fallacy was really critically discussed. The paper was written by A. de Lapparent who made it public in 1878 under the title: "Le Bathybius. Historie d'un protoplasme."³⁷ Having told the story, de Lapparent drew the moral with these words:

Devant un tel resultat, n'est-il pas permis de sourire et ne serait-on pas excusable d'évoquer ici le souvenir de cet astrologue de la legende, qui decouvrait des animaux dans la lune parcequ'une souris s'était introduite dans son telescope? Voila pourtant les surprises que la science incredule nous reserve, toutes les fois que l'esprit de parti preside a ses investigations! Si encore de telles mesaventures la rendaient plus prudente; mais il suffit de lire les derniers ecrits de MM. Huxley et Haeckel pour voir avec quel dedain, avec quelle hauteur les adversaires du transformisme sont traites par eux.³⁸ (English translation in note)

Notwithstanding the wholesale "fade-out" of *B. Haeckelii* and *Protob. Robesonii* the group of the *Monera* as such were sustained. Representatives of the group, like *Prota. primitiva*, were put upon the stage again and again till well into the twentieth century. Such a form, which had been defined as being entirely homogenous and lacking a nucleus, was still considered to narrow the gap between matter and life.

The Ultimate Result

However, *Prota. primitiva*, so minutely described by Haeckel in 1868, was gradually recognized to be non-existent. Thus *Prota. primitiva*, at first conceived to be the most simple *Moneron*, turned out to be a mere hoax! The other *Monera* were gradually recognized to be non-existent as well, or, possibly, false to the definition. H. F. Copeland stated in a 1938 article on "The kingdoms of organisms"³⁹:

In his *Generelle Morphologie*, Haeckel postulated the existence of a group of organisms without nuclei; he named the group Monera (originally Moneres, but the neuter form used in later works is preferable) and included it in Protista. He is said to have postulated, rather than to have recognized or assembled, such a group, because most of the organisms which he assigned to it, *Protamoeba*, *Protomonas*, and *Vampurella*, are either non-existent or false to the definition. Among Haeckel's original examples of Monera, *Vibrio* is the only one representing organisms which actually exist and are interpretable as lacking nuclei.⁴⁰

At present, however, we know for fact, thanks mainly to relatively recent cytological, genetic and biochemical research, that the *Bacteria*, like *Vibrio*, have a DNA containing nucleus-though not surrounded by a membrane-which stores genetic information. Consequently, *Vibrio* cannot be classed properly in *Monera*, as formerly conceived by Haeckel. Presently, the group, on which that name has been conferred, must be looked upon as entirely imaginary.

Summary and Conclusions

The foregoing may be summarized as follows:

(a) In order to establish *abiogenesis*- implicit to any consistent hypothesis of transformism-the most renowned biologists of that time, viz., Huxley, Haeckel et al., postulated the fictitious *Monera* and "discovered," "observed" and "analyzed" the most simple "representative" *B. Haeckelii*.

(b) Moreover, the "find" of a still lower form, namely *Protob. Robesonii*, was reported.

(c) In regard to an already "discovered" form, viz., *Prota. primitiva*, Haeckel "observed" the reproduction by process of fission-though the relevant "organism" did not exist.

(d) And some naturalists "observed" *B. Haeckelii* in a fresh sample of mud-though it was a mere sulphate of lime, which only formed when placed in alcohol.

(e) Also, Gumbel, Zittel et al., foremost geologists of that time, introduced the *Monera* into geological literature.

(f) Finally, to all this the majority of the contemporary biologists and geologists readily assented. As a consequence of the impact of the

philosophy of evolution, these men did not observe **fact**, but a **fictional system**. In that way the philosophy of evolution has exerted a harmful effect on the study of nature and on the progress of science.⁴¹

The *Monera* were "observed with the standard microscope. In the course of the last decades, the more powerful phase and electron microscope plus such techniques as microdissection have revealed an astounding complexity in protoplasm and the cell. Thus modern techniques have widened the gap between matter and life. (Figure 4)

Now then, an hypothesis is said to be acceptable in proportion to its degree of heuristic value, i.e., in proportion as it stimulates the discovery of still unknown fact. As shown, the hypothesis of evolution did not lead to **fact** but to mere **fiction**.

On the other hand, the doctrine of creation—to which doctrine a wide gap between matter and life is implicit—proved to be in conformity with fact. In consequence, the doctrine of creation has to be accepted—at least, as a working hypothesis.

Notwithstanding all that, this is not done by W. Seifriz in his book on *Protoplasm* (1936). Having wrongly ascribed the "discovery" of *B. Haeckelii* to Haeckel, Seifriz stated: "Though his find was not what he thought it to be, yet Haeckel's philosophical idea is nevertheless sound, for we cannot escape the conviction that life began in a relatively undifferentiated mass of protoplasm."⁴²

This statement of **belief** is endorsed by the majority of present-day evolutionists. Consequently, these evolutionists love **system** better than **truth**; and their aversion against the doctrine of creation cannot be a matter of science, but, on the contrary, it only can be the result of an *a priori* philosophy.

Notes and References

¹*Annales des sciences naturelles* (partie zoologique), 4^e serie, XVI, 1861, pp. 5-98, pl. I.

²Pasteur's papers on *abiogenesis* are collected in: *Oeuvres de Pasteur*, II, pp. 185-358; Paris, 1922.

³*Generelle Morphologie der Organismen*, I, p. 135; Berlin, 1866.

⁴*Jenaische Zeitschrift für Medicin und Naturwissenschaft*, 4. Band, pp. 64-137, Taf. II, III; Leipzig, 1868.

⁵*Ibid.*, pp. 104-107, Taf. III, Figures 25-30.

⁶*Quarterly Journal of Microscopical Science*, new series, VIII, 1868, pp. 203-212, pl. IV.

⁷*Ibid.*, p. 210, Pl. IV, Figure 1.

⁸*Proceedings of the Royal Society of London*, 1868, p. 191; quoted by G. C. Wallich: "On the true Nature of the so-called 'Bathysius,' and its alleged Function in the Nutrition of the Protozoa" in *The Annals and Magazine of Natural History*, 4th series, XVI, 1875, p. 323.

⁹*The Annals and Magazine of Natural History*, 4th series, IV, 1869, pp. 112-124.

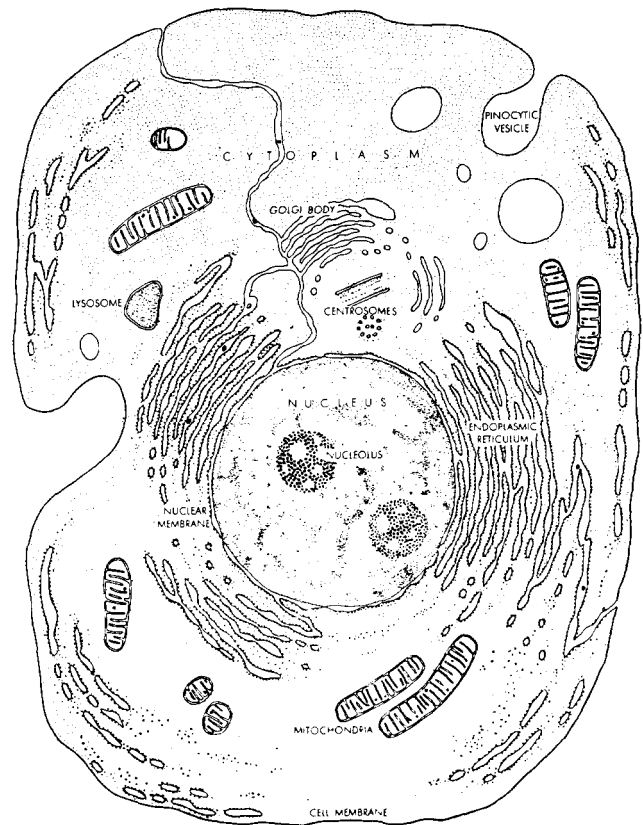


Figure 4. Diagram of a typical cell. The diagram, based on electron micrograph, gives an idea of the astounding complexity in protoplasm and the cell. (From: *The Living Cell, Readings from Scientific American*, Sept. 1961, p. 9).

¹⁰*Ibid.*, p. 121.

¹¹*The Depths of the Sea*, pp. 410-415, Figure 63; London, 1873.

¹²*Jenaische Zeitschrift für Medicin und Naturwissenschaft*, 5. Band, pp. 492-550, Taf. XVII; Leipzig, 1870.

¹³*Ibid.*, p. 504.

¹⁴*Sammlung gemeinverstaendlicher wissenschaftlicher Vortraege*, 5. Serie, Heft 110, pp. 1-43, 1 Titelbild; Berlin, 1870.

¹⁵*Ibid.*, p. 38.

¹⁶*Natürliche Schöpfungsgeschichte. Etc.*, Second Edition, p. 306; Berlin, 1870. English translation:

As soon as one formerly tried to visualize *abiogenesis*, one directly broke down on the organic make-up of even the most simple organisms which were known at that time. This main difficulty has not been solved until we have been acquainted with the highly important *Monera* which are not at all made up of organs, which are only composed of one single chemical compound, and still grow, feed and reproduce, and by that the hypothesis of *abiogenesis* has gained that degree of probability as to entitle it to fill up the gap between **Kant's** cosmogeny and **Lamarck's** descent theory. There is already even among the till now known *Monera* one species which probably still today

continually originates by *abogenesis*. It is the miraculous *Bathybius Haeckelii*, discovered and described by Huxley.

¹⁷*Proceedings of the Royal Geographical Society*, XV, 1871, pp. 37-39.

¹⁸*Ibid.*, p. 38.

¹⁹*Archives des Sciences physiques et naturelles*, nouvelle periode, XLI, 1871, pp. 76-78.

²⁰*Neues Jahrbuch für Mineralogie, Geologie und Palaeontologie*, 1870, pp. 753-767.

²¹*Ibid.*, p. 757.

²²*Ibid.*, p. 763.

²³*Sitzungsberichte der kaiserlichen Akademie der Wissenschaften* (mathematisch-naturwissenschaftliche Classe), 62, Band, 1. Abteilung, 1870, pp. 669-682, Taf. I.

²⁴*Ibid.*, p. 673.

²⁵*Nature*, IX, 1874, p. 405.

²⁶Packard, A. C., *Life Histories of Animals*, pp. 3-4; New York, 1876.

²⁷von Zittel, Karl A., *Harndbuch der Palaeontologie* (First Part), pp. 58-60; München und Leipzig, 1876-1880.

²⁸*The Monthly Microscopical Journal*, 1, 1869, pp. 32-41.

²⁹*The Annals and Magazine of Natural History*, 4th series, XVI, 1875, pp. 322-339.

³⁰*Ibid.*, p. 330.

³¹*Archiv für Protistenkunde*, 1. Band, 1902, pp. 89-165, Taf. IV-VI.

³²Buchanan, J. Y., "Preliminary Report to Professor Wyville Thomson, F. R. S., Director of the Civilian Scientific Staff, on Work (Chemical and Geological) done on board H. M. S. "Challenger" " in *Proceedings of the Royal Society of London*, XXIV, 1876, p. 605.

³³*Quarterly Journal of Microscopical Science*, new series, XV, 1875, pp. 390-392.

³⁴*Proceedings of the Royal Society of London*, XXIV, 1876, pp. 471-544.

³⁵*Ibid.*, pp. 530-531.

³⁶*Kosmos. Zeitschrift für einheitliche Weltanschauung auf Grund der Entwicklungslehre*, 1. Band, 1877, pp. 293-305.

³⁷*Revue des Questions Scientifiques*, III, 1878, 1, pp. 67-74.

³⁸*Ibid.*, p. 73. English translation:

Before such a result, is it not allowed to smile, and would one not be excused for recalling to mind, that astrologer of the myth who discovered animals in the moon because a bat had entered into his telescope? These, however, are the surprises which incredulous science gives us always when bias presides at its investigations! If only such misfortunes would make incredulous scientists more cautious, but it suffices for one to read the latest writings by Huxley and Haeckel to note with what contempt, with what haughtiness the adversaries of transformism are treated by them.

³⁹*The Quarterly Review of Biology*, XIII, 1938, pp. 383-420.

⁴⁰*Ibid.*, p. 385.

⁴¹Already the harmful effect of the hypothesis of evolution on research has been stressed by W. E. Lammerts in a paper on "Mutations and Evolution," *The Challenge of Creation*, pp. 8-9; Caldwell, Idaho, 1965.

⁴²Seifriz, W., *Protoplasm*, p. 11; New York and London, 1936.

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Science Curriculum Studies textbook, *Biological Science, An Inquiry into Life*, (Yellow Version) Harcourt, Brace, & World Inc., 1963.

George Howe's careful review of the blue-green algae is a fitting companion paper to Rupke's in that the complexity of even these relatively simple forms of plant life is clearly shown. It is becoming more and more evident that there really are no "simple" forms of plant life, as was imagined by earlier generations of evolutionists such as Haeckel. Unicellular and filamentous organisms are complex *internally*

instead of externally. Even the blue-green algae present problems as regards any postulated origin from a common ancestral form.

A plea is made herewith for library, field, and laboratory research articles. If each one of our active scientist members would review just one article in his or her favorite science journal per year, sending it either to the editor or one of the associate editors, we would soon have a splendid backlog of material for our quarterlies and the annual.

Walter E. Lammerts
Editor