marked discrepancies of result and inference on the Thebesian question as it concerns the possible compensatory function of these vessels in chronic coronary occlusion, and commendably emphasizes the urgent importance of having the problem settled with finality. In the future development of the subject Swedenborg's proposition may well find a place, historically, as embodying in principle one widely entertained hypothesis relative to the cardiac sinusoids. Even more, his almost modern structural conception of the intramural vascular relations, based on the injections of Lancisi and other eminent early anatomists, should have similar recognition.

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SUGGESTIONS IN STRATIGRAPHIC NOMENCLATURE

PERHAPS others as well as the writer have often been at a loss for a concise, logical and self-explanatory term for indicating all that portion of the geologic sequence (or geologic time) below or antedating the Cambrian system (or time). Strangely enough, the embarrassment becomes more acute if one searches for a term to include the Paleozoic, Mesozoic and Cenozoic. To the lower or earlier subdivision such terms as Azoic, Eozoic, Agnotozoic, Proterozoic, pre-Cambrian and pre-Paleozoic have been applied by various authors in different ways.[1] Chamberlin and Salisbury make a dual subdivision of this expanse of time into an Extrusive and a Gradational Eon, but in the latter they include the Proterozoic, as understood by them, and the basis is not "zoic," a feature so well fixed in geologic nomenclature since the days of John Phillips. Haug's treatise devoting one chapter to pre-Cambrian, the next to Cambrian, the next to Silurian, etc., does not clearly bring out the dual classification here under consideration. Ambiguities and needless circumlocutions are to be found in our most recent and authoritative writers on geologic topics owing to a lack of precise terminology.

Note the following:

> . . . the high degree of evolution and specialization seen in the invertebrate fossils at the very base of the Paleozoic was in itself a proof that pre-Paleozoic evolution occupied a period as long as or even longer than the post-Paleozoic.[2]

The meaning here is in doubt, but the chances are ten to one the author means post-Proterozoic, instead of "post-Paleozoic," else the whole Paleozoic is eliminated in his second time division. Again, p. 29, *op. cit.*

> The larger estimate of 80 million years on the theory that pre-Cambrian sediments took as much time as those from the base of the Cambrian upwards.

Bearing in mind the unique and overwhelming importance of life in the development of this planet and the still unexplained but universally recognized earlier moiety of geologic time, characterized by obscure traces of life, and a later moiety with life so abundantly preserved, one may perhaps denominate the earlier as the *Cryptozoic* and the latter as the *Phenozoic* Eon, unless more descriptive terms have already been suggested. Hence the above quotations would read:

> . . . the high degree of evolution and specialization seen in the invertebrate fossils at the very base of the Paleozoic was in itself a proof that Cryptozoic evolution occupied a period as long as or even longer than the Phenozoic.''

> ''The larger estimate of 80 million years on the theory that Cryptozoic sediments took as much time as Phenozoic.''

Ambiguity, hyphenated hybrids and needless circumlocutions seem accordingly to be avoided.

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RUPTURED YOLK IN HENS AND PULLETS

SEVERE losses occur among chickens from a disease which sometimes results in the rupture of egg yolks in the abdominal cavity. Once established in a flock, the disease usually persists over a long period. In some flocks the death losses have amounted to more than 50 per cent. within a month.

In studies made on 87 flocks, *Pasteurella avicida* was recovered from 48 per cent. *Salmonella pullorum* and *Salmonella gallinarum* were found in a few cases.

Detailed studies were made on the pathogenicity of *Past. avicida* found in cultures and in tissues from field cases in eight flocks. Intramuscular and intraperitoneal injections of cultures and of yolk material from diseased birds caused death in from 18 hours to five days or longer. Infection sometimes occurred, following intranasal inoculation and when cultures were placed in drinking water. The introduction of cultures directly into the crop failed to produce infection. Lesions typical for the disease were produced in experimental birds and cultures of *Past. avicida* were recovered from most of the birds injected.

Post-mortem examinations of field cases and of experimental birds revealed the lesions usually described for fowl cholera. In addition to these lesions,

[1] See Gregory and Barrett, *Jour. Geol.*, 35: pp. 747–742.

[2] ''Origin and Evolution of Life,'' 1930, p. 28.