AN ANTHOLOGY OF MATTERS SIGNIFICANT TO CREATIONISM AND DILUVIOLOGY: REPORT 2

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This report is not about one specific topic, but is a collection of miscellaneous findings conveying a diverse body of information of interest to Creationists and Diluvialists. It is thus a natural sequel to the author's first anthology.[1]

Highlights of points concerning biological evolution include: 1) fallacies in claims of life from non-life, 2) lack of a proven driving mechanism; 3) the problem of "living fossils, 4) fundamental biologic phenomena not explained by evolution.

The section on "ancient reefs" further shows that: 1) ancient "reefs" lack a reef network, 2) these deposits were cemented inorganically, 3) growth orientation is no proof of growth in situ over immense periods of time.

Previous Creationists' observations about "overthrusts", such as lack of gouge, and perfectly conformable "thrust" contacts, are confirmed. Over two hundred cases of anomalous fossils are tabulated; and it is shown that such fossils typically do not show morphological evidence of the "reworking" which has been invoked to explain them.

A final section on uniformitarianism notes evidence to show that thick igneous and metamorphic rocks have formed and cooled quickly; and illustrates the blinding influence of uniformitarianism.

Plan of this Article

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I. BIOLOGICAL EVOLUTION: SCIENTIFIC AND PHILOSOPHICAL CONSIDERATIONS

1. Incongruity of Claiming Evolution to be a Fact.

In a recent comprehensive work on evolution, Darlington, a zoologist based at Harvard, wrote: "Different minds will require different 'degrees of cogency', but I think that most persons who look at the evidence for themselves, and are not prevented by religious or political prejudices (i.e., by judgements before the evidence) will accept evolution as a fact".[3]

Publishing in 1969 (long before the Creationist movement had become widely known and many evolutionists had resorted, in retaliation, to dogmatic proclamations of evolution as fact) Savage[51] wrote: "No serious biologist today doubts the fact of evolution, the development of all living organisms from previously existing types under the control of evolutionary processes . . . We do not need to list evidences demonstrating the fact of evolution any more than we need to demonstrate the existence of mountain ranges", (sic).

By contrast, Davies[4] wrote: "No hypothesis is ever proven, only mathematicians prove things. In science, we can only ask whether or not a hypothesis seems to correspond with the real world, as best we perceive it . . .To take another hoary, but still politically active example, the debate about the theory of evolution would generate less heat if some of its proponents did not claim that the theory is a proven fact."

Comment: Even if evolution was very strongly supported by evidence, evolutionists should still have no right to proclaim evolution to be fact or attempt to browbeat students and readers of their works to accept evolution as fact.

As is, all the premises of evolution completely break down under close examination, so " . . . most persons who look at the evidence for themselves and are not prevented by religious or political prejudices" should agree that evolution does not "correspond to the real world."

2. Utter Baselessness of all Evolutionistic Origin-of-Life Hypotheses

Brownlow[2] wrote: "Special conditions *may have* been required for the next step, the combination of biomonomers into the structurally complicated biopolymers, such as proteins. Only relatively simple biopolymers have been formed in laboratory experiments, and none of the extremely complex polymers of living organisms has been synthesized. It *seems* probable that fairly special (but not necessarily unusual) conditions were required for the evolution of biopolymers. For instance, this evolution *may have* taken place in isolated ponds where the necessary biomonomers were concentrated by evaporation and a chemical catalyst was present to make certain reactions occur efficiently. On the other hand, this evolution *may have* occurred in the oceans, where the clay minerals *could have* served as concentrators and as catalysts. We know that clay minerals have chemically active surfaces and interact with organic molecules. Laboratory research has shown that clay minerals can bring together different organic molecules and can stabilize amino acids. All this is, however, *pure speculation.* We *know very little* about the formation of biopolymers on the earth by non-

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biological processes. The next step, the formation of a living thing, is also *not understood* in terms of chemical processes. This step marks the actual origin of life and was followed by biological evolution." (italics added)

Comment: These statements demonstrate once again all evolutionistic claims of abiogenesis are sheer fantasy.

3. Origin of Metazoans Entirely Conjectural

Valentine [52] wrote: "Just which of the many possible early metazoan forms was the actual primitive metazoan may never be known; all metazoan lineages of this grade are extinct. Fossils are unlikely to occur and would not be conclusive if found. There is no shortage of *speculative* reconstructions, however, the most famous being the blastaea-gastraea pathway envisioned to Haeckel (1874)." (italics added)

Comment: After the (supposed) origin of life from nonlife, the next evolutionary step imagined is the origin of metazoans and increase of biotal complexity and diversity prior to the origin of the phyla. It has been even said the 80% of molecules-to-man evolution had already been completed before the origin of the phyla. But just as the evolutionary origin of life from nonlife is fantasy and wishful thinking, so also is the evolution of metazoans.

4. Lack of Proven Driving Mechanism for Evolution

Ruse[53] wrote: "Evolution is, to put it simply, the result of natural selection working on *random* mutations." (italics added)

In speaking of famous modern examples of supposed evolution at work (drug-resistant viruses, the peppered moth *Biston betularia*, etc.), Ruse[54] wrote: "The experiments are designed to tell one about the theory —this they do. They are not aimed primarily at the actual reconstruction of the history of life, and for this reason should not be blamed when they do not tell us about it."

Hallam[55] said: "Certainly, elucidation of evolutionary *mechanisms* must remain the province of geneticists and ecologists, but these scientists are denied the invaluable time dimension which allows us to investigate evolutionary *patterns* in a comprehensive and meaningful way. Such topics as crucial to a full understanding of evolution as the nature of diversity, change through time, rates of origination and extinction, progressive colonization of and adaptation to ecological niches, convergence and parallelism, paedomorphosis, size change, *the temporal aspect of speciation and origination of new higher taxa*, and radiation and extinction in relation to changing macroenvironments, are decidedly the realm of the paleontologist." (italics added for phrase: " . . . the temporal aspect of speciation and origination of new higher taxa . . .". Other italics his)

Ruse[56] wrote: "However, although geneticists know of some mutations which cause fairly drastic changes, they have entirely failed to discover the kind of macromutations required by the saltation theory—the kind of mutation which would take a group of organisms from one order to another. Moreover, the large-effect mutations which are known are usually just those mutations which are the most crippling to their carrier . . . Of course, one might argue that the failure to find the right kind of macromutations does not necessarily prove their non-existence, but, like unicorns, there is a difference between saying that *logically* they might exist and that it is *reasonable* to suppose that they exist." (italics his)

Comment: The first statements (ref. 53, 54) of Ruse and the statements of Hallam concern evolution by gradual accumulation of selected micromutations, whereas the final statement of Ruse (ref. 56) concerns evolution via drastic mutations in relatively short periods of time.

Ruse (ref. 54) claims that such examples as the peppered moth are *bona fide* examples of and proofs of evolution, yet acknowledges that they in no way demonstrate that actual evolution of new living forms occurs. The statements of Hallam make it clear that all claims of real evolution (origin of new forms) appeal to paleontology. Knowledge from genetics, population biology, ecology, etc. in no way proves that macro-evolution is taking place. The claim that there *is* such a process as macroevolution must always appeal to the fossil record to imagine that it *did* happen. One can never prove from modern living things that macroevolution is happening or even *exists*.

Some newer concepts of evolution as "saltatory evolution," "hopeful monsters," "punctuated equilibria," etc., rely to a large extent on supposed macromutations. The final statement of Ruse (ref. 56) makes it clear that there is not one iota of evidence for these macromutations as sources for evolution.

5. Non-Preservation of Hard Parts of Ancestral Forms No Excuse for the "Cambrian Explosion"

Frey[5] wrote: "A popular theme in organic evolution holds, in essence, that the 'sudden' appearance of fossils in Cambrian rocks reflects the acquisition by animals of hard parts capable of being preserved, not the rapid diversification of organisms themselves during earliest Cambrian time. If true, one should expect to find diverse assemblages of trace fossils in Precambrian rocks, which is not the case. Studies . . . show that trace fossils reflect an explosion in diversity and complexity in Cambrian rocks that is comparable to that of body fossils . . . thus ruling out the above theme as a simple explanation for impoverished Precambrian biotas."

Comment: Any ancestors of the phyla appearing suddenly at the basal Cambrian would leave a record of traces even if the ancestors lacked hard parts to be preserved as body fossils. The fact that traces also have a "Cambrian explosion" means that the only rationalization that evolutionism can invoke for the abrupt appearance of the phyla (and many lower taxonomic categories) in the Cambrian is the convenient claim that evolution was so rapid that it left no fossil record at that point.

6. Illogical Reasoning in Appeal to the Incompleteness of the Fossil Record as a Rationalization for Absent Transitions

Darlington[6] wrote: "Many gaps and ambiguities occur in the fossil record and are stressed by critics, but (as Darwin noted) they are expected. Fossilization is and must be rare and chancy . . . The fossil record *must* be fragmentary. It would almost be more logical to criticize the record, not because it is incomplete, but because it is better than it ought to be." (italics his)

144 pages later, Darlington[7] wrote: "Nevertheless, in spite of being fragmentary and biased, the fossil record gives us a surprisingly good view—almost a magical one—of the course of evolution at least of higher plants and animals."

Comment: Evolutionists can appeal to an incomplete fossil record as a rationalization for absent transitions and then turn around, contradict themselves, and point out that the fossil record is actually very rich.

Creationists Anderson and Coffin[8] noted that further collecting of fossils sharpens, not closes, the gaps in supposed evolutionary fossil sequences. More and more evolutionists are recognizing this, and the "punctuated equilibrium" concept has been invented for this purpose (see below).

7. Incompleteness of Fossil Record No Excuse for Absent Transitions

Waterhouse[9] wrote: "Darwin set aside most of the fossil evidence for evolution with the proposal that it was massively incomplete. But there were polemic rather than scientific reasons for this attitude because he insisted on gradualistic evolution which most fossils did not substantiate. But the fossil record can no longer be set aside as woefully incomplete. More than 100 years of study demand instead that the gradualistic concept be reassessed."

Comment: Because many evolutionists no longer believe that missing transitions can be explained away by appeals to non-preservation, they have proposed the "punctuated equilibrium" concept, where it is conveniently supposed that evolution of new taxonomic categories was so rapid that it left no fossil record at that point."

8. "Missing Links" Substantiating (Alleged) Human Evolution No Longer Expected to be Ever Discovered

Laporte[57] recently wrote: "Ironically, as the hominid fossil record improves, arguments for phyletic gradualism lose their force, particularly the old chestnut that 'if the record were better, we'd see transitional change occurring'."

Comment: The "punctuated equilibrium" concept is applied to human evolution. How often human evolution is presented as fact to the gullible public, yet now some evolutionists not only admit the lack of transitions in human evolution, but do not even pretend a hope that they will ever be found!

9. Human Evolution: Welter of Contradictions, Imaginations, and Ill-Defined Taxons

In an excellent up-to-date review article on human evolution, Cronin *et. al.*[138] wrote: "However, not all palaeoanthropologists are convinced that *H. erectus* is ancestral to *H. sapiens*." They then described 4 mutually-contradictory widely-held views of human evolution. The *H. habilis-H. erectus-H. sapiens* lineage was accepted and held common to the 4 views. One view held *Australopithecus africanus* and *A. afarensis* both ancestral to the aforementioned *Homo* line, another held the former but not the latter to be ancestral, another held the latter but not the former to be ancestral, and still another view held neither form to be ancestral to genus *Homo*.

Cronin *et. al.*[139] also said: "Specimens often quoted as displaying 'intermediate' or 'mosaic' characters between *H. erectus* and *H. sapiens* include Broken Hill and Omo (Kibish) in Africa, Ngandong in Java, and Arago, Vertesszollos and Petralona in Europe. Other recently discovered fossils which may belong to this intermediate category are the . . ." ". . . present concepts of variation within the species *H. erectus* and *H. sapiens* need to be re-examined."

Cronin *et. al.*[140] wrote: "Second, while the K-Ar dating of tuffs at Laetoli and Hadar remain to be confirmed by other dating techniques, such as palaeomagnetism, there are preliminary faunal indications that Hadar and Laetoli may be closer in time than the absolute dates would suggest."

Comment: The highly imaginative character of presumed human evolution is once again demonstrated by the highly contradictory views of how this supposed evolution took place (Cronin *et. al.*, ref. 138).

The claims of Cronin *et. al.* that the *H. habilis-H. erectus-H. sapiens* lineage is transition-filled (gradual cranial-size and body-weight increase, p. 118) is betrayed by the fact that these "species" of *Homo* are quite amorphous. The fact that many forms are "mosaic" and "intermediate" (ref. 139 cited above) between *H. erectus* and *H. sapiens* need not be evolutionary but simply indicative of the ill-definition, amorphousness, and artificiality of these "species." My article on cephalopods[141] described similar phony transition-filled evolution in artificial genera. Cronin's statement (ref. 140) shows once again the selective acceptance of age-dating results.

10. "Living Fossils" Admittedly are not Explained by Evolution

Paul[58] wrote: "Nevertheless, examples are known among vertebrates (*Sphenodon, Latemeria*), invertebrates (*Neopilina, Platasterias*), and plants (*Ginkgo, Araucaria*) and are thus too widespread to be ignored. Clearly there is some pervasive effect which allows the survival of small groups for long periods, but what it is remains unknown. The occurrence of 'living fossils' is partly due to our better understanding of the living world compared with the fossil record. Small groups have a relatively low preservation potential, but this only explains why small groups are not preserved, not why they manage to survive for long periods."

Comment: Creationists have long been calling attention to "living fossils" such as the coelacanth *Latimeria* and the maiden-hair tree *Ginkgo. Platasterias* is an extant echinoderm that has persisted unchanged since the Ordovician, with last fossil appearance in the Devo-

nian. Paul admits that there is no evolutionary explanation as to why some forms persist for hundreds of millions of years after allied forms either evolved into something else or became extinct. It is easily explained by the discarding of evolution and geologic time via the Creationist-Diluvialist Paradigm.

11. Many Fundamental Biologic Phenomena Not Easily Reducible to Evolutionistic Explanations

Van Heyningen[59] said: "Why the tetanus and botulinus bacilli should produce these immensely potent toxins is a problem of great philosophical and practical interest. Diphtheria toxin and most other bacterial toxins attach and break down the tissues of the animal infected by the parent organism. In doing so, they assist the bacteria in the invasion because the bacteria grow well in disintegrating tissues. The tetanus and botulinus toxins, however, do not attack animal tissues generally. It does not appear to be of any survival value to the tetanus and botulinus bacilli to produce toxins that not only confine their action to nerve tissue but also, as far as can be seen, cause no damage even in this tissue. Yet on evolutionary ground it is hardly conceivable that the bacilli should produce the toxins unless they have some survival value."

Comment: This is yet another example of biologic phenomena that do not appear to have any survival value to the organism and hence do not support evolution and its "survival of the fittest" dictum.

12. Persistence of Belief in the Biogenic Law among Evolutionists

Darlington[10] wrote: "In simple principle ontongeny does recapitulate phylogeny, but the recapitulation is at best incomplete and often also imprecise and complexly modified by omission of stages, distortion of sequences, or premature termination . . ."

Comment: Because of the inconsistencies noted above, the claim that ontogeny recapitulates (supposed) phylogeny is superficial at best.

13. Fallacies of Evolutionistic Attempts to Circumvent Probabalistic Arguments

Darlington[11] wrote: "To apply this concept to, for example, man: it was probably inevitable that an intelligent organism in some ways like man would evolve on earth. The probability that this organism would be man as he is, in all details, approaches zero. But the possibilities approach infinity, and one of these possibilities was (practically) sure to occur, and man is in fact the one."

In responding to the classic Monkeys-Typing argument, Darlington[12] said: "This is the kind of situation that obtains in evolution: the source of energy (analogous to the monkey) is the molecular and chemical energy of atoms and molecules, the 'living letters' are genes and their components, mutants, and combinations; and the additions have in fact been greater than the erasures, for otherwise evolution would not have occurred. Under these conditions, the probability that evolution will produce any pre-designated organism approaches zero, but the probability that some organism comparable to, say, man, in organization, complexity, and intelligence may approach certainty."

Comment: First of all, this argument begs the question. It is known that something *had* to evolve because evolution does take place, and evolution is known to take place because something *had* to evolve.

It has not been demonstrated (much less proved) that any living system *could* evolve, let alone that *some* sort of living system *had* to evolve. To say that complex living things are here because *some* complex living system *had* to appear is folly and presumption.

14. Evolutionistic View of the Basic Nature of Man: An Animal

Heinlein[13] wrote: "Man is an unspecialized animal. His body, except for his enormous brain case, is primitive. He can't dig; he can't run very fast; he can't fly. But he can eat anything and he can stay alive where a goat would starve, a lizard would fry, a bird freeze. Instead of special adaptations, he has general adaptability."

Clebsch[14] wrote: "Then Darwin's epoch making *Origin of the Species by Means of Natural Selection* (of 1859) and *The Descent of Man* (of 1871) made fables of the notion of human uniqueness and the story of the animals in Noah's ark. Put crudely, humanity bore the image of the ape-*creatio in imago simii.*" (italics his)

Comment: Despite efforts by many evolutionists to downplay it, evolution clearly teaches that man is mere animal. It is fallacious for "theistic evolutionists" to imagine that man became the image and likeness of God (Gen. 1:27) at a certain point in his (alleged) evolution, for the simple reason that evolution does not recognize any qualitative difference between animals and man.

15. Evolutionistic Advocacy of a Cruel and Violent Nature

Darlington[15] wrote: "The first point is that selfishness and violence are inherent in us, inherited from our remotest animal ancestors. They are not peculiar to man. Some biologists have tried to persuade themselves that cooperation rather than competition is the rule in nature, and that violence (a form of competition) is unnatural or secondary, but they are mistaken. Nature is, conspicuously, red in tooth and claw, and I do not see how naturalists who look carefully around them can doubt it. . . Violence is, then, natural to man, a product of evolution."

Comment: Evolution is therefore not only scientifically fallacious but also immoral. It reinforces the delusion that violence, etc. are natural and inevitable rather than the products of man's fallen sinful nature of his own responsibility. The fact that most evolutionists do not practice nor advocate violence is of no importance; reinforcing sinful delusions on a matter of such profound implication as the fundamental nature of man can do only harm, as spawning evil socio-political philosophies (see below).

16. Evolution and the Origin of Evil Socio-Political Philosophies

Concerning Darwin, Littell[16] wrote: "He proposed that natural selection governs the evolution of forms of life; with the fittest surviving. The latter proposition became the basis of several schools of politics and social philosophy, including both laissez-faire economics and Nazism. The former displaced the view of man as a fallen angel and replaced it with man conceived as risen animal."

Hoffman[17] wrote: "Hitler believed in struggle as a Darwinian principle of human life that forced every people to try to dominate all others; without struggle they would rot and perish . . . Even in his own defeat in April 1945 Hitler expressed his faith in the survival of the stronger and declared the Slavic peoples to have proven themselves the stronger."

Comment: These statements illustrate once again that many evil socio-political philosophies were and are based on evolution. It is interesting to note that Hitler's committment to evolution was stronger than his committment to Pan-Germanism.

While evolutionists deny any legitimate association with, or responsibility for, Nazi ideology and practice, their position reinforces delusions (see no. 15 above). Since the evolution tree is evil, it can only, sooner or later, in one form or another, give rise to evil fruit (Matt. 7:17-18). Some other evil fruits are discussed in sections below.

17. Evolution and Nihilism

Darlington[18] wrote: "For example, we may say 'wings are to fly with', and this seems to imply purpose, but to most evolutionists it means only that the function of wings is flight and that flight gives wings the selective advantage that results in their evolution. This implies cause but not purpose. *Most evolutionists see no purpose in evolution even when they use language that seems to imply it.* I shall try not to use teleological language and (if I use it inadvertently) shall never intend to imply purpose by it." (italics added)

Comment: The strongly anti-teleological position of evolution is in diametric contrast to the Creationist position and its recognition of purposeful Divine design in nature (Psalm 139:14, Romans 1:20). Evolution could not possibly have been "God's method of Creation" as "theistic evolutionists" imagine because evolution vehemently rejects all notions of purposeful design. Evolution is thus nihilistic, as there truly is no purpose in anything other than simply that combination of matter which has survived.

18. Evolution and Monistic Principles

Clebsch[19] said: "Most of the century's scientists, including Darwin, sensed the tension between the conclusions their data implied and their personal attachments to the traditional sense of human uniqueness. Even Haeckel wrote a book (in 1892) reconciling religion and science under monistic philosophy."

Comment: Theism and evolution are not "reconciled" under monism for the simple reason that monism is irreconcilable with theism. The growing popularity of Eastern mysticism among western universities may be partly the result of evolutionary concepts.

19. Impossibility of Reconciling Theistic Religion with Evolution

Darlington[20] wrote: "Holism and emergent evolution are only parts of a continuing and, I think, *continually unsuccessful* effort of some evolutionists to reconcile evolution, mystic ideas, and religions. Teilhard de Chardin was perhaps the best-known evolutionist who was still trying to reconcile them until his death a few years ago-after which the Vatican condemned his works." (italics added)

Comment: Any "reconciliation" of theism and evolution is doomed to utter failure because, while attempting to satisfy both, it inevitably ends up satisfying neither. Evolution and theism can't be combined because evolution is thoroughly and decisively atheistic. (see below)

20. Evolution: Atheism and Materialism

Darlington[21] wrote: "The outstanding evolutionary mystery now is how matter has originated and evolved, why it has taken its present form in the universe and on the earth, and why it is capable of forming itself into complex living sets of molecules. This capability is *inherent in matter as we know it*, in its organization and energy.

"*It is a fundamental evolutionary generalization that no external agent imposes life on matter.* Matter takes the forms it does because it has the *inherent* capacity to do so . . . This is one of the most remarkable and mysterious facts about our universe: that matter exists that has the capacity to form *itself* into the most complex patterns of life. By this I do *not* mean to suggest the existence of a vital force or entelechy or universal intelligence, but just to state an *attribute of matter* as represented by the atoms and molecules we know . . . We do not solve the mystery by using our inadequate brains to invent mystic explanations." (italics added, except for *not*)

Comment: Evolution is clearly atheistic and materialistic. "Theistic evolution" is totally fallacious because: 1) evolution does not tolerate the notion of God having either started the process, nor directed it, nor intervened in any part of it. Nor could God have "used" evolution because evolution does not require Divine consent. There is no place for God in evolution *whatsoever*, while *everything* in evolution is purely the result of matter in motion. Nor could God have even created the natural laws that supposedly make evolution happen because even natural laws are inherent in matter. It is high time that believers stop attempting to compromise with evolution through fallacies such as "theistic evolution", recognize that evolution is unabashedly atheistic, and reject evolution *in toto* because it has no scientific basis.

How interesting that Darlington can simultaneously maintain that evolution is fact (see No. 1, this section) and at the same time acknowledge that how and why things (supposedly) evolve at all are an "outstanding mystery." How interesting also that how and and why evolution (supposedly) occurs is an "outstanding mystery" yet it is something asserted to be demonstrably "inherent in matter." "Professing to be wise, they became fools . . ." (Romans 1:22)

II. FALLACIOUS CLAIMS OF "ANCIENT REEFS" IN THE GEOLOGIC RECORD

1. Introduction: Varying Uniformitarian Opinions Concerning "Ancient Reefs"

Shaver[22] wrote: "Perhaps as many of these (studies) have directly or indirectly cast doubt on the existence of true reefs of Silurian age in the Midwest as have supported the idea . . . Indeed, the graduate students at Indiana University who have joined with me to present the information for . . . (this guidebook) do not all agree that 'reef' is wisely applied to the Silurian structures so often called 'reefs.'"

Comment: Even within uniformitarianism there is controversy as to whether or not certain carbonate lithologies are "ancient reefs." This entire section is a sequel to a similar section in the author's first Anthology,[23] where evidence was presented that "ancient reefs" were not reefs and could be understood in terms of the Creationist-Diluvialist paradigm.

2. Conjectural and Imaginative Character of Uniformitarian Reef Models Ascribed to Ancient Rock

Mountjoy[43] wrote: "The Alberta Basin is one of the best known Paleozoic reef provinces in the world, especially in terms of the amount of geological data available particularly in the subsurface. It has been extensively studied and various depositional and diagenetic models have been published . . . The models are based on conjecture, unproven ideas, and the interpretations of limited factual observations germinated and enhanced by imagination."

Comment: Mountjoy recommends that further studies be done to strengthen reef interpretations, but, in view of the fact that these lithologies have already been extensively studied, one might realize that the conjecture actually reflects the fallacious uniformitarian ancient-reef premises.

3. Some "Ancient Reefs" Merely Artifacts of Erosion

After describing effects of subaerial erosion in modern carbonates of the Persian Gulf, Shinn[24] wrote: "Subaerial sculpturing might explain the steep-sided 'cores' and flank beds seen in some ancient 'reefs' and 'bioherms'."

In an ancient example, Squires[25] wrote: "The pseudoreefs do resemble true reefs in that they seem to lack clearly defined bedding in certain cliff-face exposures."

In another ancient example (this one from a classic locality) Twenhofel[30] wrote: "The Schlern dolomitic limestones of South Tyrol were originally interpreted as a great barrier reef system . . . with bordering strata dipping steeply from the margins. Ogilvie-Gordon questioned this origin of the steep dips and considered these features as due to faulting and erosion."

Comment: Much "reef geometry" may be apparent rather than real. That which is real is not proof of reef (see No. 12 below)

4. Capriciously-Dipping "Reef Flank" Strata

Carozzi and Hunt[26] wrote: "This reversal of dip is not an uncommon phenomenon for Niagaran reefs and is believed by Cummings and Shrock (1926, 1928) to result from the settling of the heavy reef masses into the underlying sediments."

Comment: Frequently, the "reef flank" strata fail to dip away from the "reef core." The real reason is that these are not ancient reefs but Flood deposits, and the capricious dip reflects variability in Flood currents. This is especially realized because of the fact that ascriptions of "reef core" and "reef flank" are themselves quite arbitrary (see below).

5. Vague Facies Distinction Between "Reef Core" and "Reef Flank"

In describing the Silurian Thornton Reef of Chicago, McGovney[27] reinterpreted much "reef core" as being truly "reef flank" when bedding was discovered in it. He concluded: "The reef flank facies is about 95% of the preserved reef." Even this he considered an arbitrary distinction, contended that there is really no "reef core" as such, and suggested that the deposit was not a shoal-water wave-battered reef but a carbonate mound.

In speaking of the Silurian "reefs" of Iowa, Hinman[28] wrote: "The core and flanks are petrographically nearly identical, but structurally and paleontologically dissimilar . . . The material of the flank beds is lithologically quite similar to that of the core and can be distinguished from it solely on the basis of the stratification of the flank material. The flank beds are also fossiliferous . . ."

In reporting on the Silurian "reefs" of Ohio, Kahle[29] wrote: "Although fossils tend to be concentrated within bioherms, they are locally equally abundant in rocks between bioherms."

Comment: It is clear that there is, at best, tenuous justification for attributing rock to the "reef core" and "reef flank" facies. Once again, reefs have been read into the rock record instead of out of it.

6. Conspicuous Absence of Framework in "Ancient Reefs"

Twenhofel[31] wrote: "Walther's definition may hold for some reefs, but few reefs known in the geologic column known to the writer contain many branching corals."

Kahle[29] wrote: "Except for bryozoa, fossils within bioherms typically *do not touch one another* and do not appear to have formed a rigid framework." (italics added)

Lane[32] wrote: "A variety of sedimentary deposits that contain abundant crinoid ossicles, at places completely disarticulated or coherent in the form of calcyes and crowns, are widespread in Paleozoic rocks. A number of such deposits have been called reefs or bioherms even though commonly there is little evidence that they were raised above the surrounding sea floor at the time they were being formed, that they had rigid organic framework, or that they were wave-resistant."

Concerning the Carboniferous "reefs" of England, Anderton *et. al.*[44] wrote: "Problems still remain concerning the origin of the mudbanks, due to the rarity of framebuilders."

Stanley[45] said: "Unlike modern reefs, the North American examples were all small biostromal buildups that never developed in the high-energy surf zones . . . These findings acquire special significance when compared with thick Triassic sequences in Germany, Austria, and Italy which have long been regarded as classic reefs. Studies in the Northern and Southern Alps have shown that extensive coral framework is absent." "Although Middle Triassic sequences in the Dolomites have been referred to as reefs, they have little reef framework and corals are minor constituents.[46]"

Klovan[33] wrote: "The dearth of three-dimensional framework in many ancient reefs has led to a gradual change in the conceptual model of the organic reef from that of a 'reef wall' to that of a thin, discontinuous rim."

Comment: These statements provide further confirmation of the lack of framework in "ancient reefs." This lack is precisely because these were not reefs and consquently organisms did not intergrow and bind lime muds accumulating over immense periods of time. These are Flood deposits, with material and organisms washed in. Even fossils appearing in growth position are not proof of *in situ* reef development (see Nos. 9 and 10 below). Furthermore, the lime muds could have been cemented inorganically and not by organisms over immense periods of time (see No. 11 below).

The Triassic deposits discussed by Stanley provide an interesting sidelight. They are probably the deposits cited by Giordano Bruno (1548?-1600) who insisted that there could have been no Flood. Instead of reacting with dogmatic appeals and with censure, churchmen should have examined these rocks and thereby refuted Bruno's claims of reef origin for these deposits.

7. Evidence Against Reef Origins from Dearth of Predation

Twenhofel[34] pointed out that ancient reefs are well preserved in contrast of modern reefs.

Comment: This lack of predation in "ancient reefs" is because there are Flood deposits and not reefs. Consequently, there was insufficient time for appreciable predation to occur on these deposits.

8. Major differences in Scale between Modern and Ancient "Reefs"

Twenhofel[34] pointed out that the Great Barrier Reef is 1000 miles long and (with the exception of the Silurian reefs of the Michigan Basin): "Few ancient reefs approach this dimension . . ." He noted that the modern reef in Maratoea is 1400 ft. thick and (except for some Permian algal reefs): "No ancient reef made by coral as an important contributor is known to have anything like a comparable thickness."

By contrast, in speaking of relatively minor differences between modern and ancient "reefs", Klovan[35] wrote: "Therefore, although similar controls are likely to affect recent and ancient reefs, precise analogues between the two can seldom be drawn."

Comment: This major scale difference between modern and ancient "reefs" can be understood in terms of the ancient deposits not being reefs but (much thinner) Flood deposits. Lack of precise analogies is another consequence.

9. Many claims of In-Situ Reef Organisms based upon Conjecture

Philcox[36] wrote: "The corals in the thickets *appear* to be *more or less* in their position of growth, as they are self-supporting." (italics added)

Ager[37] claimed that 87.5%-97.5% of corals and stromatoporoids in the Chicago-area Silurian reefs are in growth position. In a review of Ager's book, Manten[38] disagreed, writing: "In reefs, comparable to those in the English Wenlock, around 81% of the coral colonies are found in position of growth, this percentage decreasing to only 46-58 for reefs formed in relatively shallow water."

Comment: The statement of Philcox has an air of vagueness about it. Indeed, many claims in the literature about reef organisms occurring in growth position are based on conjecture rather than careful investigation. Furthermore, the contradictory opinions of Ager and Manten reveal a subjectivity in judging what is and what isn't in growth position. Even those reef organisms found definitely in growth position do not prove *in situ* reef growth over immense periods of time (see below).

10. Reef Organisms in Growth Position No Proof for Reef Growth

Ager[37] wrote: "A more serious objection, even when the subjectivity of such observations has been reduced by counting, is that the same effect could be brought about by mechanical means. It may be argued that a hemispherical body such as shown in Figure 5.5. would tend to come to rest in this position of greatest stability. Clearly, we need to consider other evidence as well, such as the nature of enclosing sediments."

Concerning the Silurian "reefs" of Iowa, USA, Philcox[47] wrote: The majority of flat-based favositid colonies lie upright, but since this is their most stable orientation, they may have rolled into this position. In the absence of other evidence they should be regarded as ambiguously situated. It is frequently claimed in the literature that a given upright colony is in its growth position, implying *location*, when the evidence really only shows the colony to be in its growth *orientation.*" Furthermore: ". . . rolled conical or cylindrical colonies could come to rest in an upright position if supported by projections in the substrate or by other colonies." Philcox then suggested that *in situ* growth could be substantiated if the contact of the colony with the substrate could be seen, but then acknowledged that a transported colony could bring the contact along with it (as an uprooted tree can bring undisturbed soil layers among its roots). Even after suggesting that relatively rare instances of intergrown, branched colonies crossing different horizons demonstrate *in situ* growth, he would only say the the situation offers: ". . . a greater chance that they have been buried where they grew.[47]"

In speaking of how to recognize *in situ* fossil forms as a whole, Fursich[48] recently wrote: "Recognition of epifaunal species preserved in life position is difficult

where the life position is a hydrodynamically stable position and thus could also have resulted from transport."

The Soviet paleoecologist Hekker[39] cited: ". . . the occasionally preserved life groups."

Comment: Clearly *in situ* ancient reefs are not proven by the existence of reef organisms in growth position. Since organisms occurring in growth position are very rare overall (statement of Hekker) it may be a matter of chance that the Flood currents sometimes deposited a large percentage of fossils in growth position locally. Such occurrences were facilated by the stability tendencies pointed out. Usually, the Flood would deposit organisms and lime mud with low concentration of fossils and very few of them in growth position, and this would be attributed to a non-reef carbonate shelf environment. Occasionally, however, the Flood deposited a high concentration of fossils and these turned out in growth position; such deposits being attributed to ancient reefs by uniformitarians.

11. Inorganic Cementation of "Ancient Reef" Deposits

In speaking of the Chicago-area Silurian "reefs", Pray[40] wrote: "I believe that submarine cementation played a role of equal or greater importance than organic binding in the construction of the Thornton Reef Complex."

Neumann[49] said: "Ancient mounds, in contrast to the modern lithoherms, appear to have accumulated largely from submarine cementation of products of *in situ* origin."

Comment: Lime muds need not have been bound by reef organisms over immense periods of time. Just as in clastic sedimentary rocks, inorganic cementation can account for the cementation of these deposits. Even a mound-shaped geometry of the "reef" deposit is not proof that it was a reef and consequently the organisms in it had bound it. (see below)

12. "Reef" Geometry No Proof for a Deposit Being a Reef

Keith[41] wrote: "This reef and others in the region, together with their associated carbonate-shelf deposits, fit into a well-expressed orthogonal tectonic pattern controlled by larger-scale basement features."

Lane[32] wrote: "The specific geometry developed in a deposit that contains abundant crinoid debris is thought to be most importantly controlled by two factors—the rate of sedimentation and the strength of bottom currents."

Comment: Many forms of geometry of "reef" deposits can be explained by tectonics during sedimentation. The statement of Lane indicates that geometry may be purely the result of sedimentological factors. "Ancient reefs" may be dune-type Flood deposits. (see below)

13. "Ancient Reefs" Actually Dune Deposits

Anstey and Pachut[42] wrote: "Longitudinal Ophiurids (star dunes) result from radially converging longitudinal vortices forming a collective updraft on the dune appex."

Many "ancient reefs" (especially of the Lower Paleozoic) are composed mainly of crinoids and crinoidal debris. Jenkyns[50] proposed that crinoidal lenses are a type of sand wave deposited in a pelagic seamount: a giant ripple mark of tidal origin oriented perpendicular to current direction.

Comment: During the Flood, the waters deposited organisms and sediment into variously-shaped dunes, accounting for the "mound"-shaped "reef" geometry of these deposits.

III. UNIFORMITARIAN CONFIRMATIONS OF CREATIONISTS' OBSERVATIONS CONCERNING (ALLEGED) OVERTHRUSTS

1. Introduction to "Overthrusts"

Gretener[60] wrote: "The following observations seem to have universal validity: 1. The contact is usually sharp and unimpressive in view of the great amount of displacement. 2. Structures which have been named 'tongues' appear to be common. They are features where material from the overridden sequence is seemingly injected as a tongue into the base of the overthrust plate. 3. Secondary (splay) thrusts are common. 4. Coalescence of tongues may produce pseudo-boudins. 5. Minor folding and faulting can usually be observed in both the thrust plate and the underlying rocks. The intensity of such deformations is normally comparatively weak, at least in view of the large displacements these thrust plates have undergone . . .[6] Late deformations, particularly by normal faulting, are present in many thrust plates. They should be recognized for what they are: post-thrusting features completely unrelated to the emplacement of the thrust plates."

Comment: Creationists and Diluvialists have long noted instances of strata resting in "wrong" order, and how overthrusts have been claimed because of this inverse order. The works of Burdick,[61] Burdick and Slusher,[62] and many others have all pointed out that: 1) the contact between "overriding" and "overriden" plate is faint and lacks slickensides, gouge material, etc., 2) the "overriding" plate shows little deformation, and 3) there is an overall paucity of evidences pointing to extensive tectonic motion supportive of such alleged thrusting.

The statements of the uniformitarian Gretener confirm these points. Such confirmation is especially useful because a uniformitarian could not be accused of making observations partial to Creationism. The following entries elaborate upon the major points and provide an example from the Soviet Union.

2. Lack of Evidences of Motion Along "Thrust" Contacts

Gretener[63] wrote: "However, modern mapping has led to many places where the thrusts themselves can be observed. Invariably the descriptions use such words as: 'knife sharp', 'drawn with a knife edge', etc. Figure 6 shows the McConnell thrust as exposed in Mount Yamnuska (detail, middle of Figure 1). It is indeed possible to place one's hand on the surface separating the Middle Cambrian Eldon Formation from the Upper Cretaceous Belly River Formation . . . The fact that this boundary is so sharp becomes more impressive when one considers that each point above the fault surface in Figure

6 has moved a minimum distance of 15 km. (10 mi)."

In generalizing on all "overthrusts", Gretener[60] added: "gouge material is essentially absent or, if present, is very thin (Brock, 1973; Engelder, 1974). Be it as it may, the idea of easy gliding, so persistent in the geologicial literature, is certainly supported by even a cursory examination of any thrust belt."

Gretener[64] said: "Different lithological units, usually with stratigraphic separation measured in kilometers, are in juxtaposition along a sharp contact, *often no more impressive than a mere bedding plane.*" (italics added)

Rezvoy[65] said: "*Fully conformable* with the general structure of the Silurian deposits is the underlying complete section of Devonian or Carboniferous terrigenous Totubay suite." ". . . the thrust plates, where they can actually be observed, show no traces of large displacements along them.[66] (italics added)

Comment: The descriptions of Rezvoy (refs 65, 66) concern a situation in the Tien Shan Mountains (located near the USSR/northwest-China border) where Silurian rests upon Devonian and Carboniferous. He claims that the inversion is not from a true overthrust but from the Silurian strata having been tectonically squeezed out of position and re-implaced upon the presumably younger strata. The example of Gretener (ref. 63) refers to Mount Yamnuska (located near Calgary, Alberta, Canada) where Cambrian rests on top of Cretaceous.

It is credulous to believe that thrust contacts involving miles of rock layers would result in a contact lacking gouge and capable of being straddled with one's hand. The real reason why these "thrust" contacts are "knifesharp", "conformable," and "no more impressive than a mere bedding plane" is precisely because they *are* bedding planes. The contacts are thus sedimentary and not tectonic; strata have been deposited in "wrong" order and the entire evolutionary-uniformitarian geologic column is shown to be false.

Incidentally, the situation described by Rezvoy illustrates once again the circular reasoning of using index fossils. The age of Silurian was attributed to the lithology on top of Devonian and Carboniferous as a result of a single graptolite occurrence. Certain such graptolites are known to be Silurian because they only occur in Silurian rock, and rocks are dated as Silurian solely because they contain such graptolites.

3. Paucity of Overall Deformation in Strata Involved in "Thrusting"

Gretener[63] wrote: "While the sharp nature of the faults has been emphasized by many authors . . ., one should not forget that the rocks above and below a thrust may show considerable deformation for distances of some hundreds of feet. *Still the thrust plates as a whole have remained intact and are in no way comparable to the jumbled masses of landslides.* Thus, the presumption underlying this paper—that we are dealing with *virtually undistorted plates* moving over the undisturbed sequence along sharp planes—is basically correct." (italics added)

Comment: It is credulous to believe that lithologies involved in thrusting would not at least show massive disruption and deformation. The fact that there is so little evidence of that is another evidence that these are not overthrusts but sedimentary contacts.

Even features such as "tongues," "false boudins", etc., (see item 1, Gretener[60]) can be explained by sedimentary instead of tectonic processes. It is common for submarine erosion to result in tongues of material from underlying beds being dragged into the overlying beds, according to Ager.[67]

4. Associated Tectonism No Proof for Overthrust

Gretener[68] wrote: "Most thrust plates have been subjected to post-thrusting deformation of one kind or another. One must beware of and separate such observations and not falsely ascribe them to the thrusting movement."

Comment: Evidences of tectonism are to be expected in tectonically complex regions. One wonders if the tectonic evidences associated with the alleged overthrusts are not also prevalent in regions where no overthrusts are claimed. Presumed evidences for overthrust can easily be claimed because of the uniformitarian preconception of a thrust being present where strata occurs in "wrong" order.

IV. SOME EXAMPLES OF "REWORKING" RATIONALIZATIONS FOR ANOMALOUS FOSSILS

1. Introduction to "Reworking"

Fossils frequently occur where they are not "supposed" to. It is then claimed that either the fauna or flora have lived longer than previously known (simple extention of stratigraphic range) or that the fossil has been reworked. In "reworking," it is claimed that the fossil has beeen eroded away from a much older host rock and has thus been incorporated into a rock of more recent age. The reciprocal situation is "downwash," where it is claimed that an organism has been washed down into rock much older than the time it lived and has become fossilized there.

Table 1 is a compilation of both situations. The entries are examples only and do not represent a comprehensive literature search. Nor does the table include examples previously discussed by the author in his first anthology[69] or the Creationist-Diluvialist and evolutionary-uniformitarian references cited therein.

As later items of this section will demonstrate, "reworking" is very often (if not usually) not justified by any independent lines of evidence such as state of preservation of the fossil. Claims of "reworking" are thus invoked solely because of the "improper" stratigraphic occurrence of the fossil. The numerous instances of fossils occurring in "wrong" strata is thus yet another line of evidence against the validity of the evolutionary-uniformitarian geologic age system.

Comment: Some of the entries in Table 1 have special significance.

The entries under references 84 and 96 involve the presence of Phanerozoic pollen in the Precambrian. The occurrence of Jurassic pollen in the Precambrian Ukrainian Shield was explained away by Krassilov[84] through claiming that a Jurassic weathering episode in the Shield caused a contamination with the pollen of that

Table 1. This table is a compilation of over 200 published instances of anomalously-occurring fossils. At left is the kind of fossil(s) involved followed by the accepted age of occurrence, the instance of anomalous occurrence, its locality, and the reference.

Instances were tabulated as separate entries when they involved: 1) different fossils (usually), 2) different "proper" ages, 3) different anomalous ages, or 4) different geographical locations (different nations, provinces, sedimentary basins, etc.)

The instances entered under references 70, 73, 77, 78, 88, 100, and 150 are subaqueous occurrences (deep marine) offshore marine, or lacustrine): most others involve sedimentary lithologies on land. References 70, 17, 72, 82, 84, 89, 96, 147, 148, 153, and 160 are "downwash," "infiltration," or supposed "contamination." Most other entries are "reworking" of fossils into younger-age beds.

A few of the entries in this table are claimed by the cited authors to be possible stratigraphic-range extentions rather than necessarily "reworking". This table does not include fossils of clearly secondary position (such as fossils within constituents of conglomerates and the very many instances of Phanerozoic fossils in Pleistocene glacial till).

For further discussion of the entries in Table 1, see section VI, No. 1.

Type of Fossil:	"Proper" Age:	Found In:	Location	Reference
Foraminifers	Pleistocene	Tertiary	Atlantic Ocean	70
Pollen	Tertary	Quaternary	Bolkow, Poland	146
Pollen	Tertiary	Cretaceous	East Netherlands	147
Mammal bones	Tertiary (late)	Tertiary (early)	Kazakhstan, USSR	148
Algae (?)	Tertiary	Cretaceous	France	71
Foraminifers	Tertiary	Cretaceous	Nigeria	72
Nannoplankton	Tertiary (lower)	Tertiary (higher)	Tabqa, Syria	164
Spores	Tertiary (recent)	Permian	Southland, New Zealand	165
Spores	Tertiary	Pleistocene	North Caspia, USSR	166
Foraminifers	Tertiary	Cretaceous	North Italy	167
Pollen	Tertiary	Pleistocene	Yenisei, USSR	168
Palm wood	Tertiary	Jurassic	Utah, USA	169
Foraminifers	Tertiary (early)	Tertiary (medial)	Trinidad, West Indies	206
Foraminifers	Tertiary (early)	Tertiary (medial)	Victoria, Australia	207
Foraminifers	Tertiary (early)	Tertiary (medial)	Hungary	208
Nannoplankton	Tertiary (early)	Tertiary (medial)	Romania	209
Spores	Tertiary (recent)	Jurassic	Louisiana-Texas, USA	210
Mammal bones	Tertiary (early)	Tertiary (medial)	Northeast Siberia, USSR	211
Foraminifers	Cretaceous	Tertiary	Ionian Sea	212
Foraminifers	Cretaceous	Tertiary	West Israel	213
Coccoliths	Cretaceous	Tertiary	Crimea, USSR	214
Spores	Cretaceous	Tertiary	Kazan, USSR	215
Pollen	Cretaceous	Tertiary	British Columbia, Canada	216
Pollen	Cretaceous	Tertiary	Arctic Canada	216
Pollen	Cretaceous	Tertiary	Fushun, China	216
Pollen	Cretaceous	Tertiary	Shandong, China	216
Pollen	Cretaceous	Tertiary	South Coastal China	216
Pollen	Cretaceous	Tertiary	Spitzbergen, Norway	217
Pollen	Cretaceous	Tertiary	Ural Mts., USSR	217
Pollen	Cretaceous	Tertiary	West Siberia, USSR	217
Dinoflagellate	Cretaceous	Tertiary	Australia	170
Nannoplankton	Cretaceous	Tertiary	Glogow, Poland	171
Foraminifers	Cretaceous	Tertiary	Alabama, USA	172
Nannoflora	Cretaceous	Tertiary	Zinda Pir, W. Pakistan	173
Pollen	Cretaceous	Pleistocene	Yenisei, USSR	168
Nannoflora	Cretaceous	Tertiary	Tang-E-Bijar, Iran	174

Type of Fossil:	"Proper" Age:	Found In:	Location	Reference
Foraminifers	Cretaceous	Jurassic	Scania, Sweden	175
Pollen	Cretaceous	Cambrian	Holy Cross Mts., Poland	176
Nannoplankton	Cretaceous	Tertiary	Ukraine, USSr	177
Pollen	Cretaceous	Tertiary	Utah, USA	149
Spores	Cretaceous	Pleistocene	Newfoundland, Canada	150
Spores	Cretaceous	Tertiary	Newfoundland, Canada	150
Pollen	Cretaceous	Tertiary	West Germany (?)	151
Spores	Cretaceous	Tertiary	Czechoslovakia	152
Foraminifers	cretaceous	Quaternary	Adelie Coast, Antarctica	73
Foraminifers	Cretaceous	Tertiary	Austria	74
Foraminifers	Cretaceous	Tertiary	Sweden	75
Nannoplankton	Cretaceous	Tertiary	Alps. Carpathians, Europe	76
Nannofossils	Cretaceous	Tertiary	west, southwest Pacific	77
Foraminifers	Cretaceous	Pleistocene	Louisiana, USA	78
Pollen	Cretaceous	Tertiary	Venezuela	79
Pollen	Cretaceous	Tertiary	Wyoming, USA	79
Foraminifers	Cretaceous	Tertiary	California, USA	80
Foraminifers	Cretaceous	Pleistocene	Netherlands	81
Foraminifers	Cretaceous	Pleistocene	Utah, USA	81
Foraminifers	Cretaceous	Tertiary	England	75
Pollen	Jurassic	Permian	Sariz, Antalya, Turkey	82
Spores	Jurassic	Tertiary	Isle of Mull, Scotland	83
Spores	Jurassic	Precambrian	Ukraine, USSR	84
Coccoliths	Jurassic	Silurian	North Africa	153
Pollen	Jurassic	Tertiary	Utah, USA	149
Spores	Jurassic	Cretaceous	Newfoundland, Canada	150
Pollen	Jurassic	Tertiary	Newfoundland, Canada	150
Dinoflagellate	Jurassic	Cretaceous	California, USA	154
Dinoflagellate	Jurassic	Tertiary	California, USA	154
Spores	Jurassic	Cretaceous	Perth Basin, Australia	89
Spores	Jurassic	Triassic	Northeast Siberia, USSR	218
Pollen	Jurassic	Pleistocene	Yenisei, USSR	168
Spores	"Mesozoic"	Pleistocene	North Caspia, USSR	166
Spores	Jurassic	Permian	Northeast Siberia, USSR	218
Spores	Jurassic	Cambrian	Northeast Siberia, USSR	218
Spores	Triassic	Cretaceous	British Columbia, Canada	238
Spores	Triassic (and/or older)	Jurassic	Yukon, Canada	178
Spores	Triassic Cretaceous	Alberta, Canada	219	
Ostracodes	Triassic	Tertiary	Hungary	85
Spores	Triassic	Jurassic	Andoya, Norway	86
Conodonts	Triassic	Cretaceous	Cameroons	87
Conodonts	Triassic	Jurassic	Japan	87
Spores	Triassic	Tertiary	Kutch, India	155
Pollen	Triassic	Tertiary	Newfoundland, Canada	150
Pollen	Triassic	Tertiary	Utah, USA	149
Spores	Triassic	Cretaceous	Perth Basin, Australia	89
Pollen	"Mesozoic"	Tertiary	Atlantic Ocean	88
Spores	"Mesozoic"	Tertiary	Hungary	83
Brachiopods	Permian	Triassic	Salt Range, Pakistan	142
Conodonts	Permian	Triassic	Salt Range, Pakistan	142
Pollen	Permian	Triassic	Utah, USA	149
Spores	Permian	Cretaceous	Kutch, India	156
Conodonts	Permian	Triassic	Akasaka, Japan	157
Spores	Permian	Tertiary	Kerala, India	155
Spores	Permian	Tertiary	Kutch, India	155
Spores	Permian	Cretaceous	Madhya Pradesh, India	155
Pollen	Permian	Tertiary	Nagaland, India	158
Spores	Permian	Cretaceous	Alberta, Canada	219

Type of Fossil:	"Proper" Age:	Found In:	Location	Reference
Spores	Permian	Cretaceous	British Columbia, Canada	238
Fusulinids	Permian	Triassic	Mine, Japan	180
Pollen	Permian	Triassic	Southeast Siberia, USSr	220
Pollen	Permian	Tertiary	Assam, India	158
Pollen	Permian	Tertiary	Maghalaya, India	159
Spores	Permian	Triassic	Somerset, England	90
Pollen	Pemian	Jurassic	Kutch, India	91
Pollen	Permian	Tertiary	South Australia	91
Pollen	Permian	Cretaceous	Victoria, Australia	91
Ammonoids	Permian	Triassic	KapStosch, Greenland	92
Spores	Permian	Tertiary	Hungary	83
Spores	Permian	Cretaceous	Perth Basin, Australia	89
Spores	Permian	Devonian	Canning Basin, Australia	89
Spores	Carboniferous	Jurassic	Poland	93
Spores	Carboniferous	Jurassic	Sweden	93
Spores	Carboniferous	Jurassic	England	93
Spores	Carboniferous	Jurassic	Scotland	93
Spores	Carboniferous	Jurassic	Latvia, USSR	93
Spores	Carboniferous	Jurassic	Denmark	93
Spores	Carboniferous	Jurassic	Baltic Russia	93
Spores	Carboniferous	Tertiary	Arkansas, USA	94
Spores	Carboniferous	Cretaceous	Perth Basin, Australis	89
Fusulinids	Carboniferous	Pleistocene	Utah, USA	81
Pollen	Carboniferous	Triassic	Devon, England	95
Spores	Carboniferous	Precambrian	Onega, USSR	96
Spores	Carboniferous	Cretaceous	Limburg, Netherlands	91
Spores	Carboniferous	Cretaceous	Krakow, Poland	97
Pollen	Carboniferous	Tertiary	Hungary	84
Pollen	Carboniferous	Tertiary	Alabama, USA	84
Pollen	Carboniferous	Triassic	Donets Basin, USSR	84
Pollen	Carboniferous	Jurassic	Donets Basin, USSR	84
Spores	Carboniferous	Jurassic	Germany	93
Spores	Carboniferous	Permian	Pakistan	93
Acritarchs	Carboniferous	Tertiary	Newfoundland, Canada	150
Pollen	Carboniferous	Devonian	Missouri-Iowa, USA	160
Pollen	Carboniferous	Cretaceous	Montana, USA	221
Pollen	Carboniferous	Tertiary	Montana, USA	221
Conodonts	Carboniferous	Devonian	Graz/Styria, Austria	222
Pollen	Carboniferous	Triassic	Southeast Siberia, USSR	220
Spores	Carboniferous	Cretaceous	Alberta, Canada	219
Conodonts	Carboniferous (lower)	Carboniferous (medial)	New Mexico, USA	223
Spores	Carboniferous	Cretaceous	British Columbia, Canada	238
Spores	Carboniferous	Permian	Devonshire, England	179
Spores	Carboniferous	Triassic	Devonshire, England	179
Fusulinids	Carboniferous	Triassic	Mine, Japan	180
Spores	Carboniferous	Pleistocene	Ohio, USA	181
Spores	Carboniferous	Permian	Yukon, Canada	182
Brachiopod	Carboniferous	Permian	Yukon, Canada	182
Pollen	Carboniferous	Permian	Caucasia, USSR	183
Trilobite	"Late Paleozoic"	Tertiary	Utah, USA	184
Spores	Carboniferous	Jurassic	West Arctic Islands, Canada	185
Conodonts	Devonian	Carboniferous	Missouri, USA	186
Spores	Devonian	Carboniferous	Canning Basin, Australia	179
Spores	Devonian	Permian	East West Australia	179
Crinoids	Devonian	Carboniferous	Pamir Mts., USSR	187
Conodonts	Devonian	Silurian	Texas, USA	188
Algal Cysts	Devonian	Cretaceous	Northeastern Brazil	189
Pollen	Devonian	Permian	Caucasia, USSR	183

Type of Fossil:	"Proper" Age:	Found In:	Location	Reference
Spores	Devonian	Carboniferous	Yukon, Canada	182
Spores	Devonian	Permian	Yukon, Canada	182
Spores	Devonian	Pleistocene	Ohio, USA	181
Spores	Devonian	Jurassic	West Arctic Islands, Canada	185
Spores	Devonian	Cretaceous	British Columbia, Canada	238
Spores	Devonian (medial)	Devonian (upper)	Belorussia, USSR	224
Conodonts	Devonian	Carboniferous	Kansas, USA	225
Conodonts	Devonian	Carboniferous	New Mexico, USA	223
Conodonts	Devonian	Carboniferous	Graz/Styria, Austria	222
Conodonts	Devonian	Tertiary	Graz/Styria, Austria	222
Conodonts	Devonian	Pleistocene	Graz/Styria, Austria	222
Brachiopods	Devonian (lower)	Devonian (medial)	California, USA	226
Conodonts	Devonian	Carboniferous	Kazakhstan, USSR	227
Conodonts	Devonian	Silurian	Arkansas, USA	228
Chitinozoans	Devonian	Jurassic	East Bhutan	229
Conodonts	Devonian	Carboniferous	Nevada, USA	161
Foraminifers	Devonian	Carboniferous	Nevada, USA	161
Spores	Devonian	Carboniferous	Bolivia	143
Conodonts	Devonian	Carboniferous	Devonshire, England	162
Acritarchs	Devonian (and/or older)	Carboniferous	Newfoundland, Canada	150
Spores	Devonian	Triassic	Devon, England	95
Conodonts	Devonian	Triassic	Kockatea, Australia	89
Spores	Devonian	Cretaceous	Otorowiri, Australia	89
Thelodont, Acanthodian Fish Scales	Devonian	Permian	Canning Basin, Australia	89
Spores	Devonian	Cretaceous	Perth Basin, Australia	89
Pollen	Devonian	Carboniferous	Oklahoma, USA	145
Spores	Devonian	Carboniferous	Belgium	98
Conodonts	Devonian	Permian	Texas, USA	99
Algal Cysts	Devonian	Quaternary	Lake Michigan, USA	100
Conodonts	Devonian	Carboniferous	Texas, USA	101
Conodonts	Devonian	Carboniferous	Oklahoma, USA	102
Acritarchs	Silurian (and/or older)	Devonian	Witney, England	163
Acritarchs	Silurian	Devonian	Belgium	98
Conodonts	Silurian	Carboniferous	Oklahoma, USA	102
Pollen	"Paleozoic"	Precambrian	Krivyi Rog, USSR	84
Pollen	"Paleozoic"	Tertiary	Atlantic Ocean	88
Spores	"Paleozoic"	Tertiary	Bolivia	143
Spores	"Paleozoic"	Pleistocene	North Caspia, USSR	166
Spores	Silurian	Ordovician	Ohio, USA	230
Chitinozoans	Silurian	Jurassic	East Bhutan	229
Plant tissue	Silurian (and/or younger)	Ordovician	Oklahoma, USA	190
Acritarchs	Silurian	Carboniferous	Ballyvergin, Ireland	191
Crinoids	Silurian	Carboniferous	Pamir Mts., USSR	187
Algal Cysts	Silurian	Cretaceous	Northeast Brazil	189
Conodonts	Silurian	Devonian	Texas, USA	188
Spores	Silurian(?)	Devonian	Belorussia, USSR	224
Chitinozoans	Silurian	Cretaceous	Alaska, USA	231
Conodonts	Ordovician	Silurian	Ontario, Canada	192
Conodonts	Ordovician	Devonian	Minnesota, USA	193
Acritarchs	Ordovician	Tertiary	Lough Neagh, Ireland	194
Conodonts	Ordovician	Silurian	Missouri, USA	195
Conodonts	Ordovician	Silurian	Carnic Alps, Italy	196
Conodonts	Ordovician	Silurian	Quibec, Canada	196

Type of Fossil:	"Proper" Age:	Found In:	Location	Reference
Conodonts	Ordovician	Silurian	Central Texas, USA	188
Diacrodians	Ordovician	Precambrian	Saxony, East Germany	197
Conodonts	Ordovician	Silurian	Illinois, USA	198
Conodonts	Ordovician	Silurian	Illinois, Indiana, USA	199
Acritarchs	Ordovician	Carboniferous	Ballyvergin, Ireland	191
Acritarchs	Ordovician	Silurian	Ohio, USA	200
Acritarchs	Ordovician	Silurian	New York, USA	200
Conodonts	Ordovician	Silurian	Central Siberia, USSR	232
Conodonts	Ordovician	Silurian	Southeast Indiana, USA	233
Conodonts	Ordovician (lower)	Ordovician (medial)	West Texas, USA	234
Graptolites	Ordovician	Devonian	Missouri, USA	103
Conodonts, Ostracodes				
Acritarchs	Ordovician	Silurian	Belgium	98
Acritarchs	Ordovician	Devonian	Netherlands-Belgium	98
Conodonts	Ordovician	Carboniferous	Oklahoma, USA	102
Spores	Ordovician	Carboniferous	Oklahoma, USA	94
Conodonts	Ordovician	Cretaceous	Colorado, USA	104
Acritarchs	"Lower Paleozoic"	Triassic	Devonshire, England	95
Archeocyathids	Cambrian	Permian	Dwyka, South Africa	105
Trilobites	Cambrian (lower)	Cambrian (medial)	Bornholm, Denmark	202
Acritarchs	Cambrian	Silurian	Comeragh, Ireland	191
Acritarchs	Cambrian	Caroniferous	Ballyvergin, Ireland	191
Trilobites	Cambrian	Devonian	Bielsko-Mogilany, Poland	203
Acritarchs	Cambrian	Ordovician	Shropshire, England	204
Algae	Precambrian	Cambrian or Ordovician	Verkhoyansk, USSR	205
Spores	Precambrian	Devonian	Saratov, USSR	235

time. The finding of Paleozoic spores in the Precambrian of Kirvyi Rog, USSR, was rationalized away by Krassilov[84] in a similar way. In another situation, strata was thought to be Precambrian because of its incredible lithologic similarity to proven Precambrian rock until Carboniferous spores were found in the strata (ref. 96). An alternate view proposed was that Carboniferous spores were downwashed into Precambrian and that the stratum was not a solitary Carboniferous outlier. These examples are further support for the controversial work of Burdick[106], who reported gynosperm and angiosperm pollen from the Precambrian formations of the Grand Canyon.

"Reworked" and "downwashed" forms are microfossils, it is claimed, because such small forms are resistant to erosion, transport, etc. However, many entries in Table 1 (92, 89, 103, 142, 148 and 105) involve macrofossils. The fact that most anomalously-occurring fossils are microfossils may be because anomalously-occurring macrofossils are more likely to be considered legitimate stratigraphic extensions rather than "reworking". Another explanation is provided by the Creationist-Diluvialist paradigm. Microfossils, being minute, would be less capable of differential escape and be less subject to Flood-water sorting than macrofossils. The common situation of anomalously-occurring pollen and spores may be evidence that *all* fossil plants were mutually contemporaneous (as indeed demanded by the Creationist-Diluvialist paradigm) but that pollen and spores, being mobile, were transported by wind and water far beyond the restricted ecological zones of these antediluvian plants.

2. Ubiquity and Significance of Anomalously-Occurring Fossils

Bramlotte and Sullivan[107] wrote; "To recognize such redistribution where it has occurred and yet not to invoke this explanation to account for unexpected extensions of the life range of a species presents a serious problem requiring much critical attention."

In a coexistence of Devonian with Permian fossils (ref. 89), Veevers[89] asked: "Are the Permian spores due to infiltration or are the Devonian fossils reworked in Permian deposits?"

Venkatachala[91] wrote: "Palynological fossils of older ages are *commonly* encountered amidst younger assemblages." (italics added).

Muir[108] remarked: "In any kind of ecologic study, false conclusions could be drawn, while *the havoc reworking could play with stratigraphy is immense*," (italics added)

The occurrence of Carboniferous spores in Jurassic (ref. 93) is so common all over Europe that the author Windle[93] proposed that it must have a unified continent-wide explanation. He suggested that it does not mean that hidden remnants of Carboniferous floras survived into the Jurassic but that continent-wide orogenesis dur-

ing Jurassic times in Europe caused much Carboniferous strata to be eroded away in Jurassic times.

Concerning "reworked" forms, Stanley[143] said: "These secondary grains usually are present in larger numbers in both marine and non-marine sediments than most workers would like to admit."

Comment: From all the statements cited above it can be seen that anomalous fossils cannot be dismissed as being rare or being only trivial localized occurrences. Stanley's statement hints that many instances of anomalous fossils go unpublished.

3. Lack of Independent Evidence in Many Cases of "Reworking"

Concerning the presence of Permian ammonoids in the Triassic of East Greenland, Teichert and Kummel[92] wrote: "We consider it most probable that some of the Permian faunal elements in the lowest Triassic formations have been brought into that environment as argillaceous boulders, that once coming to rest, dissolved, leaving *well-preserved fossils* that were rapidly buried in the coarse sediment and in a free state were transported very little." (italics added)

In speaking of ostracodes, conodonts, and graptolites of Ordovician age occurring in nodules within Devonian rock, Chauff[103] said: "Phosphate nodules reworked into younger strata may display little evidence of transport."

Concerning solitary "reworked" conodonts, Pokorny[109] wrote: "Allochthonous species can sometimes be recognized by their state of preservation (degree of weathering, wear, different colour or lustre) but sometimes it is possible to distinguish them from autochthonous ones by X-ray examination. Because of their great durability even this may not be successful."

Concerning some conodont speciments that were ascribed to "reworking", Lindstrom[101] said: ". . . these specimens were selected for quality. Indeed the illustrations show perfect, complete specimens."

Muir and Sargeant[113] said:

"Detection of reworking is a difficult problem. In some cases, reworked spores are better preserved than indigenous ones, in other cases worse. They may stain more or less, be more or less crushed, be older or younger, or be the only spores present."

Recently, Brasier[144] wrote: "Yet another disadvantage to the stratigrapher is the ease with which coccoliths are reworked into younger sediments without showing outward signs of wear."

Comment: The statements make it clear that many (if not most) forms which are considered to be reworked do not show any special morphological evidence for having been reworked. "Reworking" is thus solely a rationalization because the fossil has occurred where it is not "supposed" to. (see below).

4. Preconceptions of "Proper" Stratigraphic Occurrence Often Sole Justification for Claims of "Reworking"

Hass[110] wrote: "Differences in the physical appearance (color, preservation, luster) of associated specimens are indicators of a mixed fauna; but *the recognition of a mixed fauna is chiefly dependent upon one's knowledge of the true stratigraphic range of each kind of discrete conodont.*" (italics added)

In writing also of conodonts, Lindstrom[111] said: "If they do not fit into the patterns of conodont evolution established for the immediately older and younger beds, they may be in a secondary position. This is, however, a reasoning that one must use very cautiously, for there is the risk that it may lead to a vicious circle . . . Fifthly, one should use every opportunity to check the conodont sequence against index fossils belonging to other groups, as for instance trilobites or ammonoids."

Wilson[112] wrote: "In many cases the contaminants are difficult to recognize and to demonstrate the source of their origin; however, *the incompatible ages of the fossils and sequences of fossil ages are useful criteria in distinguishing mixed palynological deposit.*" (italics added)

Comment: The statements cited make it very clear that "reworking" is a convenient rationalization for "out of place" fossils. It can be and is capriciously invoked. The circular reasoning in assigning fossils to stratigraphic ranges and then turning around and explaining away occurrences of these fossils not fitting the prescribed stratigraphic ranges is obvious. As in so many other areas of the entire evolutionary-uniformitarian paradigm, only information fitting within narrow preconceived notions is accepted.

5. The Reason for the Preponderance of "Rework" over "Downwash" Situations

Goebel[136] said: "The youngest group of conodonts in a mixed fauna establishes the age of the fauna."

Comment: In an anomalous coexistence of fossils of different "ages", it is usually assumed that younger fossils yield the true age of the rock rather than the older ones. This accounts for the relative paucity of "downwash" situations.

6. Convenient Rationalization for Occurrences of Phanerozoic Microbiotas in Precambrian "Basement"

After noting how Phanerozoic contaminants can be seen in Precambrian "basement" along joints and intergranulars of the latter, Zoubek[137] recently wrote: "However, we are not so well aware of one fact typical of the polymetamorphic Precambrian basement of Phanerozoic orogens: during younger orogenesis, usually a metamorphic recrystallization of rocks of the Precambrian basement took place. Consequently, the former cracks and other mechanical discontinuities are often perfectly healed, and the "immigrated' microfossils become, in this way, an integral part of the older newly recrystallized rocks. Thus, isolated finds are to be considered with precaution in polymetamorphic terrains."

Comment: Whenever Phanerozoic microbiotas are found in Precambrian rock, they are dismissed as "contamination". Absence of textural and structural evidence can be rationalized away by claiming that it was erased in a later metamorphism. The attention and warning given by Zoubek hints that such finds of Phanerozoic biotas in Precambrian rock (as the find of Bur-

dick[106] and other examples discussed in No. 1, this section) may be fairly common.

V. GEOLOGIC-PROCESS RATES AND UNIFORMITARIANISM: SCIENTIFIC AND PHILOSOPHICAL CONSIDERATIONS

1. Introduction: Uniformitarianism—Its Ramifications and Its Fallacious Foundations

In a recent article on uniformitarianism. Bushman[114] said: "Because identifiable cause and effect relationships that require long periods of time to develop according to the operation of natural law can be followed in sequence, we must conclude that the earth is millions of years old." Bushman[114] also cited Hutton (1896): "'Not only are no powers to be employed that are not natural to the globe, no action to be admitted except those of which we know the principle; and no extraordinary events to be alleged in order to explain a common appearance.'"

In an introduction to the reprint of a 19th century geology book, Wright [115] wrote: "Was the world created in six days, perhaps in the year 4004 B.C.? Or must long periods of geologic time be postulated, if we are to explain the thick layers of sediments and the evidences of crumpled rocks in the earth's crust."

Khain[116] wrote: "Having arrived at the conclusion that the present aspect of the Earth's surface is a result of major changes, Lomonosov could not reconcile it with official length of the Earth history, according to Biblical lore (5000 years) . . . In order to escape the wrath of churchmen, he refers to the numerous contradictions in the views of the Church on that subject, as militating against an acceptance of Church chronology, which is 'neither a dogma of the faith nor a pronouncement of the Councils.'' By contrast, the church father Clement (cited by Sparks[117]) declared: "Study the sacred Scriptures, which are true and are given by the Holy Spirit. Bear in mind that nothing wrong or falsified is written in them." (1 Clement 45:2-3)

Comment: The attitude of the church father Clement towards Scripture is in striking contrast to the attitude of many believers today. Indeed, the statements of Lomonosov make it clear that Creation, the Flood, and the youth of the earth have never been clearly exposited and defended by the church. Small wonder then that evolution and uniformitarianism had been so quickly and nearly universally accepted.

The other statements illustrate the scientific—as opposed to theological—fallacies of uniformitarianism. The statements of Bushman, Wright, and Khain make it clear that uniformitarian thought considers all processes on earth operating very slowly so that the earth must then be immensely old. The statements of Hutton show the circularity and narrowness of uniformitarian thought. Strong anti-supernatural preconceptions rule over what processes are considered "natural to the globe" and which are "extraordinary" (one should note that the Creation and Flood are "natural to the globe" and that, if anything, it is the present situation of very slow geologic change that is "extraordinary").

Hitchcock (as discussed by Wright), Lomonosov, Hutton, and Bushman all fail to consider that geologic processes have operated at far greater rates in the past than at present. The first statements of Bushman also illustrate the uniformitarian fallacy of believing that sequences on earth (such as fossil horizons forming geologic periods) have time significance.

Clues Pointing to the Rapid Formation of Regionally-Distributed Metamorphic Rocks

Krauskopf[118] said: "On the other hand solid-solid reactions are generally slow, especially reactions between silicates, and quite possibly the reactions necessary for metamorphism would not take place appreciably even in geologic time without the help of fluids. The argument hinges on reaction rates, *about which quantitative information is meager.*" (italics added)

Krauskopf[119] also wrote: "If equilibrium is so much the general rule, a troublesome question presents itself. After a rock has been metamorphosed at high temperature and pressure, it must undergo a gradually decreasing temperature and pressure in order to appear finally in surface outcrops. Why doesn't its composition readjust itself so as to be in equilibrium with the lower temperature-pressure conditions? How are the high-temperature mineral assemblages preserved? Why, to put it baldly, do we ever find metamorphic rocks at all?"

After dismissing the argument that there is so little retrograde metamorphism because orogenic uplift is so much faster than compression as being special pleading, Krauskopf[119] suggests: "For regional metamorphism a better explanation is suggested by the fact that this kind of metamorphism is generally an accompaniment to orogenic movement. Perhaps reactions can occur only during the movement itself, in response to intimate crushing and granulation of the rock; perhaps reaction ceases when movement ceases, preserving the mineral assemblage formed during the orogeny."

Comment: Some uniformitarians have charged that millions of years are necessary for the formation of regional metamorphic rock. The first statement of Krauskopf makes it clear that there is relatively little knowledge about metamorphic reaction rates. Not only is the uniformitarian argument, at best, unproven, but there are major difficulties in understanding the formation of metamorphic rocks in the context of the evolutionary-uniformitarian paradigm.

In uniformitarian thought, mountains are built by compressive tectonic forces over tens of millions of years and the uplift also requires tens of millions of years. Metamorphic rocks should all revert (at the very low P-T conditions of the earth's surface) more or less back to conditions of low P-T. The fact that there is so little such retrograde metamorphism is understood in the light of the Creationist-Diluvialist paradigm. The "intimate crushing and granulation of the rock" is the result of cataclysmic tectonism during the Flood year and the centuries following. Metamorphism is thus not the result of millions of years of deep rock burial and exhumation, but the result of unique cataclysmic tectonic stresses. When these stresses suddenly stopped, there

was no more impetus for metamorphic reactions to continue and so metamorphic minerals did not usually revert in the low P-T conditions.

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3. Factors Contributing to the Rapid Cooling of Superposed Lava Flows

Williams and McBirney[120] said: "Because they have low thermal conductibility and high heat capacity, lavas of even moderate thickness are well insulated and cool slowly. It is often possible to walk on the crust of a moving lava that is red-hot only a few centimeters below the surface. Indeed, lavas have been observed to retain high temperatures as long as 5 or 6 years after their eruption . . . Rainfall can *greatly accelerate* heat losses from the surface of lavas. Ault and his co-workers (1961) found that heavy rains, totaling 4.44 inches in a period of 6 days, lowered the temperature-profile of a cooling Hawaiian lava by about 50° C to a depth of about a meter." (italics added)

Comment: Some uniformitarians have claimed that superposed lava flows interbedded with sedimentary rock need immense periods of time to form. The straw man they erected had an implicit presumption that lavas (or plutons, for that matter) need be cooled before they can be covered with a sedimentary layer. The fact that lavas can be touchably cool at the surface and yet furnace-hot at such a shallow depth implies that only the *upper crusts* of lavas and plutons need have cooled during the Flood year itself. Multiple extrusions of lava interbedded with sediment could therefore have taken place during the Flood year. Water-cooling helped.

4. Evidences for Rapid Cooling of Thick Intrusive Igneous Bodies

Warren[121] (cited by Plumstead) discussed the finding of uncooked plant spores near an igneous intrusion in Antarctica. He wrote: "Usable spore and pollen remains have now been obtained from a number of localities and a number of horizons in the Beacon Group, in some places relatively close to thick intrusive sills, and in one instance from a thin sedimentary lens interbedded with lavas or sills."

In describing a situation from the Australian Triassic, Hamilton *et. al.*[122] wrote: "The breccia pipes near Sydney contain numerous inclusions of coal . . . The coal both in the breccia pipes and in the peripheral contorted zones is of bituminous rank, which is evidence that it has not been heated above quite modest temperatures . . . None of the coal shows evidence of profound thermal alteration."

In noting that contact metamorphism around ultramafic intrusives is much less than expected from theoretical temperatures of such intrusives, Krauskopf[123] said: "Perhaps some ultramafic material is intruded as a 'crystal mush', an aggregate of solid crystals lubricated by compressed water vapor, with the temperature never rising higher than a few hundred degrees."

Comment: The cited examples are evidence that thick igneous bodies were never as hot as widely believed and cooled rapidly (since the baking effect—as amply demonstrated by the everyday example of grilling meat—is a function of the intensity of heat and the duration of the heating). Thick igneous bodies may all have had an early magmatic stage before the Flood, with the minerals at the higher temperature scale of the Bowen's Reaction Series already having been created in a crystalline state. This would greatly reduce the temperatures of intra-Flood and post-Flood intrusions because the higher-temperature minerals would have been pre-crystallized and because the associated heat of phase change would not have had to be expended.

5. Evidence for Cataclysmic Formation of Thick Igneous Complexes

Irvine[127], in describing an ultramafic complex from Alaska, USA, wrote: "Many igneous intrusions show layering formed by gravitational accumulation of crystals that is, both in variety and detail, remarkably similar to the bedding of sedimentary rocks . . . Overall, stratification is developed intermittently through an original vertical thickness of 2 miles. Individual layers have been traced for 300 feet, and one continuously layered section is 1,500 feet thick and extends 1,000 feet . . . The layering has undoubtedly formed because of magmatic currents *during extremely unstable conditions.*" (Italics added)

Comment: This situation provides a most interesting phenomenon: crystals being deposited from a flood of magma the way clastic particles are deposited from a flood of water. The large scale of these turbidite-like sedimentary structures in the igneous body attests to the large-scale effect of cataclysmic magma flow. Such cataclysmic flows or mobilizations of large amounts of magma are perfectly consistent with the cataclysmic origin of igneous bodies during Creation Week and during flood-related tectonomagmatic events. Irvine[127] added that: "Such layering occurs in most compositional types of intrusions but especially in mafic and ultramafic bodies." The Alaskan example cited above is therefore far from an isolated instance.

6. Paramount Significance of the Young Earth Concept

Clebsch[14] wrote: "The displacing of the particular creation-myth itself pales in importance beside the change in human self-awareness that was involved in

stretching their planet's age from a mere sixty centuries to many millions of centuries."

Comment: Many believers (even some of those with otherwise Creationist sympathies) tend to regard the earth's age as a very peripheral issue. The statement of Clebsch shows that the very opposite is true. The issue of the age of the earth is as important as the Creation-evolution issue itself!

7. Uniformitarianism Not Capable of Being Empirically Substantiated

Dickinson[124] wrote: "Uniformitarian thinking compels us to recognize, in the record of the rocks, the slow unfolding of diverse sequence of events whose full display is *beyond our immediate experience.*" (italics added)

Comment: Uniformitarians often belittle and ridicule Creationists for believing in "unempirical" events such as the Creation and the Flood. The statement of Dickinson makes it clear that *all* accounts of past earth history are unempirical! The Creation and Flood are no more "unempirical" than a slowly-operating earth over long periods of time. Uniformitarian concepts and their consequences are certainly unempirical, and all the more so when one considers the numerous subsidiary hypotheses and special pleading necessary to maintain the acceptance of, say, the evolutionary-uniformitarian geologic column.

8. Uniformitarianism Rests Entirely on Faith

Hunt[125], a uniformitarian, proposed that a pattern of glacial erratics in southwest Canada indicates mile-high tidal waves caused by a passing meteor near earth about 11,000 years ago (such an idea, apart from the time-scale involved, would not be of direct use to the Creationist-Diluvialist paradigm unless there was post-Flood extraterrestrially-induced catastrophism).

In replying to criticism of his paper, Hunt[126]subsequently wrote: "The commentary of L. E. Jackson Jr., essentially a summary of conventional thought on emplacement of the Erratics Train, opens with the assertion, itself *an acclamation of uniformitarian faith*, that extensive published studies 'easily explain these deposits as products of unassisted earth processes.' He then proceeds to ignore the two principal problems requiring explanation, and which my hypothesis answers." (italics added)

Comment: Uniformitarians frequently claim that their positions are "matters of pure science" while those of the Creationist-Diluvialist are "matters of faith." The reply by Hunt makes it evident that uniformitarian claims rest upon faith, particularly the well-worn premise that presently-operating processes at presently-operating rates under presently-operating conditions account for geologic features of the earth.

9. Religion Not the Cause of Superstitious Ideas About Earth History

Williams[128] wrote: ". . . Voltaire was only half-joking when he supposed that the oyster shells found by travellers in the Alpine passes were the result of the passage of generations of pious pilgrims on their way to Rome."

Comment: At one time, superstitious ideas about fossils were widely held. Historical geology textbooks commonly (but subtly) associate such superstitions with the strong religious convictions of past ages. The statement of Williams notes that Voltaire, the noted infidel, held superstitious views about fossils. Superstition was therefore universal and cannot be blamed on religious belief.

10. Uniformitarian Prejudices against Catastrophic Processes

Pattison *et. al.*[129] wrote: "With Rhodes, we do not regard the changes in the distribution and evolution of floral and faunal elements as either unduly rapid or abnormal, and consequently do not feel impelled to invoke *catastrophic or otherwise abnormal* causes to explain them." (italics added)

Comment: The equating of catastrophic processes with abnormality reveals the prejudice against catastrophism in contemporary uniformitarian geologic thought.

11. Need for Broader thinking in the Formulation of Geologic Theories

Jodry[130] said: Every few years a new geologic concept is proposed that is so well conceived and so forcefully presented, by authors of such unimpeachable reputation that it is almost universally accepted and applied. But such complete acceptance obscures the fact that *other concepts may apply*, and that *more than one geologic process may produce a given rock.* (italics added)

Comment: Some geologists, upon learning that the author is a Creationist-Diluvialist, said: "Uniformitarianism works, so why invoke anything else?" I answered that it "works" only via special pleading and endless subsidiary hypotheses. Besides (as Jodry's statement cited above indicates) the fact that a geologic theory is widely accepted and seems to "work" does not give one a right to be closed-minded towards alternative viewpoints.

12. Repressive Influence of Uniformitarianism Upon Geologic Thought

Marvin[131] wrote: "The hypothesis of continental drift is the other issue in which the uniformitarian outlook discouraged serious investigation . . . The hypothesis of continental drift appeared to be so antiuniformitarian in spirit that many geologists reacted as they might to a personal insult."

Comment: Irrespective of whether or not one accepts plate tectonics, one can see that much can be learned about the process of geologic thought from it. Uniformitarians love to boast of their position as being intellectually liberating. The statement of Marvin shows that uniformitarianism is actually an intellectual straitjacket. Whether or not a concept in geology is or isn't accepted depends heavily on whether or not it agrees with the sacrosanct dogma of uniformitarianism.

13. Pervasive Intolerance Towards Minority Viewpoints in Uniformitarian Geology

Nitecki *et. al.*[132] did a study involving a survey of 215 professional American geologists concerning their position towards the "new global tectonics." 87% accepted it (about half considering it "essentially established" and slightly less than half considering it "fairly well established"), and the remaining 12% rejected it as being "inadequately proven". 22% accepted in 1961.

They also noted: "It is significant that those least favorable to the theory were no less and no more familiar with the literature than those who have most recently accepted the theory." (So it can not be claimed that opponents of plate tectonics are less informed than proponents). A significant number of the 12% who reject plate tectonics are younger geologists, so it can not be claimed that skepticism towards plate tectonics comes only from the older geologists trained when plate tectonics was not generally accepted.

Especially significant is the following conclusion: ". . . those who have recently accepted the theory did so in an atmosphere of general acceptance that does not seem to require that they weight all the evidence themselves."

In a book review, Neumann[133] wrote: "Plate tectonics has been an enormous stimulant to geology and paleogeography. No doubt remains that such processes operate today on a global scale . . . Although many of its effects remain to be documented, continuing skepticism seems pointless and curious. Thus the final paper of the volume, 'Epilogue: a Paleozoic Pangea' by Boucot and Gray, might be compared to a sophisticated justification of the principles underlying the Flat Earth Society, and seems more a parody than a serious scientific essay."

Comment: From the research of Nitecki *et al.*, it is evident that a significant minority of informed geologists (at least 12%) reject plate tectonics in 1977. Yet plate tectonics is increasingly being presented as proven fact (statements of Neumann). This illustrates the uniformitarian intolerance towards minority viewpoints. If minority viewpoints *within* uniformitarianism can be summarily rejected, how much more so Creationism-Diluvialism and it magnitudes-greater radicalism and vastly smaller minority (than 12%)! The fact that most uniformitarians accept continental drift not from weighing evidence but from "jumping on the Bandwagon" and "following the crowd" has important implications in showing how theories become accepted in geology. Very likely it was a similar shunning of minority viewpoints and "following the crowd" that led to the rejection of Creationism-Diluvialism and swallowing of the claim of Hutton, Lyell, and Darwin over 1½ centuries ago.

While on the subject of plate tectonics, it should be noted that Creationists-Diluvialists beware of "jumping on the bandwagon." Most of the presumed evidences for the "new global tectonics" are squarely evolutionary-uniformitarian and so have no meaning in the Creationist-Diluvialist paradigm. The argument from paleobiogeography, for example, has meaning only if one accepts geologic periods and evolution: acceptance of paleoclimatological arguments also requires acceptance of geologic periods. The vital ocean-floor arguments (magnetic "stripes", ocean-bottom biostratigraphy, K-Ar results from submarine lavas) all require acceptance of geologic periods, geomagnetic reversals, and radiometric dating.

14. Atheistic Character of Uniformitarianism

Concerning the pioneer uniformitarian James Hutton, Marvin[134] wrote: "He was accused of atheism . . ."

In describing a pioneer uniformitarian who should perhaps qualify as an equal of Hutton and Lyell, Aprodov[135] said "This tribute praises Lomonosov for his purported employment of the dialectic concept to the evolution of the earth. The claim that Lomonosov's interpretations of the earth are materialistic is absolutely true, as are all other scientific interpretations. Whether he is the father of materialism in Russian science is of little importance because all sound science is materialistic . . . The statements that he first applied historical analyses to explain geologic phenomena and that he established the principle of actualism 70 years before Lyell would be brought to the attention of those unfamiliar with the contributions of the great Russian scientist."

Comment: While Hutton was not an atheist (he was said to be a Deist) his position is atheistic and his critics were correct in pointing this out. Deism and atheism are not far separated: a Supreme Being who does nothing is not greatly different from a Supreme Being who does not exist at all.

It goes without saying that Soviet Communist ideology is openly materialistic and militantly atheistic. The fact that uniformitarianism gets such an enthusiastic endorsement in Soviet Communist ideology (statements of Aprodov) is an excellent indicator of the atheistic foundations of uniformitarianism.

15. Fallacies of the Geologic Column: Extended Stratigraphic Ranges

Glaessner[136] wrote: "Index fossils combine short stratigraphic range with wide geographic distribution. The main problem in the use of index fossils is the finality with which their stratigraphic ranges can be established."

In proposing the resolution of a stratigraphic problem, Berry and Boucot[137] suggested: ". . . to let the genus *Stricklandia*, previously unknown beneath the Silurian, extend its range down into the Ordovician."

Smit[71] wrote: "It may even be possible that the Dinosaurs of the Pognacium are partly of Tertiary age . . . "

Comment: Extending the brachiopod *Stricklandia* and allowing dinosaurs to range beyond Cretaceous are two more examples of stratigraphic range extentions; reducing further the credibility of the geologic column.

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AG—American Association of Petroleum Geologists Bulletin
AJ —American Journal of Science
CA—Bulletin of Canadian Petroleum Geology

EL—Elsevier Scientific Publishing Co., Amsterdam, New York
GA—Geological Society of America Abstracts with Programs
GR—Grana Palynologica
IG —International Geology Review
JP —Journal of Paleontology
JW—John Wiley and Sons, New York, Toronto
MI —Revue Micropaleontologie
MP—Micropaleontology
NA—Nature
PA —Palaeogeography, Palaeoclimatology, Palaeoecology
PS —Pollen et Spores
PY —Geophytology
RE—Creation Research Society Quarterly
RP —Review of Paleobotany and Palynology
RU—Geologische Rudschau
SP —Journal of Sedimentary Petrology
US —Proceedings of the Ussher Society

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CREATION, WHY AND HOW?

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In this article the question: Creation—Why? is examined; and it is concluded, among other things, that the second law of thermodynamics was put into operation as soon as Creation was complete. The question: Creation—How? is also examined; and it is suggested that one of the results of making creation subject to vanity (Romans 8:20) at the fall was radioactivity.

Introduction

This paper will examine and suggest answers to the following questions:

Is "perfect" synonymous with "very good"?

Creation—Why?, i.e., why did God create man? the earth? the universe?

What was the created life-span of the earth and the stars, i.e., how long would they remain in the "very good" condition in which they were created?

Were living creatures created with a body that was subject to death, i.e., mortal, or not subject to death, i.e., immortal? And was man on the same footing as other living creatures in this respect, or no?

When did the Second Law of Thermodynamics take effect?

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