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Kurt P. Wise

Truett McConnell University

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CONTRIBUTIONS TO CREATIONISM BY GEORGE McCREADY PRICE

Kurt P. Wise, Truett McConnell University, 100 Alumni Dr., Cleveland, GA 30528

ABSTRACT

George McCready Price (1870-1963) was the leading young-life creationist of the first half of the twentieth century. Largely self-taught, Price shared his creationist views in more than two dozen books and more than 800 articles—mostly intended for the lay believer. Price argued that true science involves deriving absolute truths by inductive syllogism from known truths. Price believed the Creation Week was 144 consecutive hours in length, six or seven thousand years ago, and everything on the earth was created in that Creation Week. Price believed the creation was created in the state of perfection and that natural evil entered the world at the Fall of man. Price believed the only natural group of organisms, the created kind (what he called the ‘natural species’ when he was being careful), was at about the taxonomic level of genus or family, and could be identified by successful hybridization. Except in the high altitudes, Price believed the entire pre-Flood world enjoyed a sub-tropical climate and supported a biota of much greater size and beauty than the biota of the present world. Price believed the Genesis Flood was global and was caused by some sort of upheaval of the oceans—possibly the sloshing back and forth of the oceans as the earth sustained a sudden, axis-changing astronomical impact. Price believed that all Phanerozoic sediments were formed in the Flood, and organisms were buried close to their pre-Flood habitation. Price believed that the global biostratigraphic column was artificially arranged according to organismal development, reversals of that order are due to normal sedimentation (not post-depositional thrust faults), and most so-called ‘extinct’ organisms are actually identical to modern organisms. Price believed that a sudden freeze was somehow associated with the Flood (to explain frozen mammoths), and the warm pre-Flood ocean water in inland seas caused a regional ice age in the years following the Flood. Price believed created kinds diversified largely by splitting and differentiation following the Flood. Price believed the post-Flood Cro-Magnon people are the oldest humans from which we have evidence, and all other hominoids (fossil and living, ape and human) are degenerate humans. Price also believed that God created languages and races and gave them to different people groups spreading out from Babel. Finally, Price believed that human civilization has degenerated from its highest form in Eden.

Price’s geological ideas formed the core of the geological arguments of Whitcomb and Morris’s *The Genesis Flood*, but without appropriate citation. Many of the discussions of modern creationism are similar to ideas Price shared a century or more ago. Although many of current creationist discussions are likely to be derived from Price, not only is this not obvious, but much valuable discussion has been lost. Creationists should reconstruct their intellectual history and thus enrich current discussions.

A host of Price’s claims are echoed in modern creationist discussions. Many of those discussions may turn out to be derived from Price’s ideas and this intellectual heritage should be studied in detail. Price’s philosophy of science, for example, seems to be echoed in such things as the creationist tendency to present anti-evolutionary arguments rather than build models, the preference of quantitative over non-quantitative research approaches, and the adoption of positivist definitions of science. Price’s climatology seems to be echoed in such things as adherence to the canopy model, associations of warm climate with large body size, and discussions about the nature and timing of the ice age. Price’s biology seems to be echoed in such things as creationists’ use of Mayr’s biological species definition, references to ‘natural limits to variation’ and ‘living fossils’, and post-Flood diversification by segregation of genetic information. Price’s geology seems to be echoed in such things as the rejection of the biostratigraphic column and disputes about the location of the Flood/post-Flood boundary in the stratigraphic record.

KEY WORDS

George McCready Price, history of creationism, inductive science, seven day week, global flood, invalid geologic column, ice age, diversification, degeneration

INTRODUCTION

George McCready Price (George E. McCready Price through Price 1902) was the penname of George Edward Price (1870-1963)—McCready being his mother's maiden name (Clark 1966, p. 16; Numbers 2006, p. 89). Price joined the Seventh-Day Adventist church at about the age of 14 (Clark 1966, p. 12-13; Numbers 2006, p.89), presumably becoming a believer somewhere around about that time. His formal education included two years of a 'classical course' in college and a one-year training course at a teacher's college (Clark 1966, pp. 13-14; Numbers 2006, p. 91)—all his college degrees being honorary (a B.A. from Loma Linda medical college as he was leaving a teaching position there in 1912 [Clark 1966, pp.31-32; Numbers 2006, p. 107] and a M.A. from Pacific Union College some time before 1931 [Numbers 2006, p. 107]). Beyond that, Price was a voracious reader, self-taught in the sciences. For over sixty years, from 1902 to his death in 1963, Price published something on the order of 30 books, at least a dozen tracts, and more than 800 articles—most through Seventh-Day Adventist publications and publishers, but many others in a wide variety of Christian publications. Both Morris (1993) and Numbers (2006) consider Price the most important and influential creationist of the first half of the twentieth century. In 1905, and again in 1906, Price edited two different, short-lived young-age creationist journals (no copies of which apparently exist), and in 1941 Price founded the first young-age creationist society—with journal—though it only lasted for a few years. He also directly trained, and/or heavily influenced, several creationists influential in the middle of the twentieth century including Harold Clark, Frank Marsh, and Clifford Burdick.

George McCready Price also had a substantial influence on creationists outside of the Seventh-Day Adventist church. Henry M. Morris (1993:88) admitted that after he had 'a life-changing experience' in 1943 reading *Illogical Geology* (Price 1906), he read most of Price's books. In fact, many of Henry M. Morris's arguments were heavily indebted to the writings of George McCready Price. In spite of that, Price's poor reputation and his association with Seventh-Day Adventism (which Morris considered a cult) caused Morris—in print, anyway—to gradually distance himself from Price (Numbers 2006, p. 220). In *The Genesis Flood*, for example, though it contains much that comes from Price, very few of Price's ideas are credited to Price (Numbers 2006, pp. 223-224). Because of this, many current creationists are unaware of the contribution Price made to the modern creation model. The purpose of this paper is to expose modern young-age creationists to the ideas of Price, so as to restore the credit due Price and to partially explain the intellectual heritage of modern ideas and controversies in young-age creationism.

PRICE'S CLAIMS

What follows is an attempt to accurately summarize George McCready Price's ideas in a brief space of a single paper. This paper summarizes a considerable amount of information in very succinct fashion—often suffering, for a lack of space, from a format that approaches a list or outline. Also, in an attempt to make the account as brief as possible, the only references provided are to the earliest appearance of that particular idea in Price's *books* (not in the more than 800 articles), unless a later book provides

a noteworthy elaboration not found in the earliest book. As a further effort at abbreviation, only those positions of Price that are most relevant to modern creationist discussions are included. The reader should also understand that the arrangement of the material to follow is the invention of *this* paper's author and not George McCready Price. Most of Price's work was critical of uniformitarian and evolutionary perspectives. Consequently, Price committed a vast percentage of his published words on just a few of what he considered the most critical arguments against wrong ideas. Price believed himself called by God to demolish the false scientific edifices, so that others after him could build the correct ones. Thus, Price did not often present even the basic components of a positive, coherent creationist model, and devoted very little discussion to those components when he did mention them. This means that Price's ideas are presented below in an order in text and time quite unlike the order that Price ever presented them.

1. Price's Theology

A. *The Nature of Revelation*

Price (1916, p. 81) believes the Bible is a source of absolute truth, designed to provide information from God that humans could not discover on their own (Price 1916, p. 211; Price 1934, pp. 152-153). Because of this, Price (1916, p. 13) believes that the Bible is authoritative over the conclusions of science. Viewing Scripture through his appreciation of logic, Price believes Scripture is an example of divine inductive logic. Price (1916, pp. 29-35) believes God, in Scripture, lays out history and facts, and from those demonstrable truths argues with syllogistic certainty to absolute truth. As a consequence, Price sees the Bible—and Christianity—founded on the historicity of Genesis. This explains why Price devoted his life to demonstrating the historicity of the early chapters of Genesis. The fact that the logical structure of Scripture was explicitly the creation of God explains why Price did not accept that the Bible was derived from ancient near eastern sources. Instead, Price (1920b, pp. 38-39) suggests that any similarities between ancient near eastern sources and the Bible might actually be due to a common source for the two—namely, actual history—which precedes the two.

Price (1911, pp. 170-171) believes God will reveal a scientific (deductive) case for scriptural truths which is built on the demonstrable facts of the book of nature—a case that will leave people in the end times 'without excuse'. That Price believed he was called to present this case explains Price's enthusiasm and productivity on the matter of creation and the Flood.

B. *Specific Scripture Passages*

Price does not often refer to specific passages of Scripture. The passages that Price interprets in a manner relevant to the current creation model are given below with Price's interpretation, more or less in order of appearance in Scripture:

- (1) Price believes Genesis 1 and Exodus 20:8-11 demand a 144-hour Creation Week (e.g. the title of Price 1922). Thus, Price rejects Augustine's germ theory (Price 1934, p. 71), as well as the gap theory (Price 1902, pp. 112-113) and the day-age theory as viable interpretations of Genesis 1. Consequently, Price also rejects pre-Adamite theory (Price 1934, p. 8), progressive creationism (Price 1906, p. 19), and theistic

- evolution (Price 1911, p. 39).
- (2) Price (1902, pp. 113-114) believes that life was created ‘some six or seven thousand years’ ago—presumably because Price believes in a week-long Creation Week (above), and believes that the genealogies of Genesis 5 and 11 are without gaps.
 - (3) Price (1916, p. 138) believes that organisms are currently “... obeying the divine mandate announced in the beginning to reproduce, each after its particular kind”, although he does not clarify from what specific verse or verses this conclusion is derived.
 - (4) Based on the sanctification of the Sabbath in Gen. 2:2-3 and Ex. 20:8-11 and the ‘very good’ evaluation in Gen. 1:31, Price (1916, pp. 143-144) believes that the original creation was holy, lacking any natural evil.
 - (5) In his 1902 (pp. 89-90, 115-119) and 1906 (pp. 92) publications, Price believed creation occurred according to natural law. By 1911 (p. 172), however, Price had come to believe that the *ending* of God’s creation in Gen. 2:2-3 and Ex. 20:8-11 means that God used very different processes to create than He currently uses to sustain the creation. By 1916 (pp. 128-133) Price argues that Heb. 4:3-4 and Heb. 11:3 make the same claim. This latter claim becomes the foundation for many of Price’s subsequent publications.
 - (6) Price (1934, p. 26) believes the Euphrates and Tigris rivers of Gen. 2:11-14 are antediluvian rivers that were destroyed in the Flood.
 - (7) Because he believes Genesis 7-9 requires that the Flood was ‘absolutely universal over the globe’, Price (1934, pp. 34-35) believes that Woolley’s Mesopotamian ‘flood layers’ *post-date* the Flood of Genesis.
 - (8) Price (1916, p. 207) believes Gen. 7:11, with its reference to ‘fountains of the great deep’, indicates that a disruption of the ocean was the chief cause of the Flood.
 - (9) Price (1916, pp. 207) believes Gen. 8:3 refers to tidal activity during the Flood, citing an unspecified William Dawson publication as a source.
 - (10) Price (1902, p. 47) believes the ‘You preserve them all’ of Neh. 9:6 and the ‘upholding all things by the word of His power’ of Heb. 1:3 refer to God’s sustaining activity.
 - (11) Price (1916, p. 106) believes Rom. 8:19-21 refers to the Genesis 3 curse on the creation.
 - (12) Price (1902, p. 127; 1916 p. 24) believes II Peter 3:4 refers to uniformitarianism.
 - (13) Price (1902, pp. 127-128) believes II Peter 3:6 refers to the Flood.

2. Price’s Philosophy of Science

Price has a deep admiration for the rules of logic formalized by Aristotle, and uses those rules throughout the many publications of his long writing career. Yet, Price did not often use his logic to construct a coherent creation model. Just as Price himself admits in one of his early publications (Price 1906, p. 8), most of Price’s works are critical of non-creationist beliefs. He justifies this by explaining that “...some destructive work is necessary before a better structure can be erected in its place.” (Price 1913, p. 16).

Not atypical of the philosophy of science believed in Price’s day, Price believes in the strongly inductive philosophy of science

advocated by Francis Bacon, Isaac Newton, and William Whewell. Price believes scientists *should* (and do) seek truth (Price 1902, p. 31) in an unbiased fashion (Price 1920a, p. 449) according to a standard scientific method (Price 1920a, p. 430), by accumulating demonstrated, objective facts (Price 1902, p. 114), and arriving at logically necessary generalizations by syllogistic induction (Price 1911, pp. 91-93). Because the logic of true syllogistic induction should arrive at absolutely true conclusions, Price (1916, p. 13) believes science can—and does—arrive at truth. What Price does not clarify is when we can know that we have actually arrived at truth. Although syllogistic induction *should* in principle arrive at truth, it is only guaranteed to do so *if* all of the data necessary for the proper induction are available *and* there is truly only one possible syllogistic induction possible for that data. If a person is working with too little data and/or has not thought of the correct interpretation of the data, the inductive conclusion could be wrong. The possibility of such error becomes evident in the cases where Price makes statements of scientific certainty about things that we now believe to be false (*e.g.* new elements cannot be formed, and continents have never moved with respect to the earth’s rotational pole).

Deduction (reasoning from generalities to particulars) has two very different roles in Price’s philosophy of science. First, deduction can be used to discover truth in science, but only when starting with what we know to be absolutely true inductive conclusions (Price 1911, p. 91). Second, deduction can be used to test the validity of scientific theories by testing the necessary deductions from those theories against the data of Scripture and the physical world (1925a, p. 8). Thus, for Price, discordance between scientific deductions on the one hand, and the data of Scripture and the physical world on the other hand, is a falsifiability criterion for scientific theories. Or, more accurately, this is a *potential* falsifiability criterion for scientific theory, for this criterion only falsifies a theory *if* the person is actually utilizing at least some of the data that actually falsifies the theory. This means scientific theories must always be held tentatively (Price 1925a:8), and can never attain the status of absolute truth that scientific inductions can potentially enjoy.

Price believes the goal of (inductive) science is to arrive at general, absolute truth claims. He also believes that the Bible contains general, absolute truth claims. It is probably because Price believes these two things, that Price believes the true scientist should start with Scripture (Price 1911, p. 73) and continually consult with Scripture (Price 1916, pp. 14-18). Yet, it is not entirely clear what Price actually means by this. First of all, in his publications, Price rarely refers to Scripture, and when he does, it’s almost always identifying a given passage of Scripture with an inductive conclusion of science. In the latter cases, the implication is that Price is using favorable comparison with Scripture as a truth criterion for scientific induction—to know when scientific induction has actually arrived at absolute truth. Rather than being invoked in the process of scientific investigation at either the beginning or along the way, Scripture seems to have no other role than determining when to *stop* a scientific investigation. Secondly, Price (1925b, pp. 27-28) claims that creationists and evolutionists use the same data—they differ only in their interpretation of the data. However, if Scripture functions as both a potential falsifiability criterion for

scientific theories *and* a starting point for science, then Scripture is—or *ought to be*—data. This means that creationists and non-creationists do *not* use the same data. Creationists use—or *ought to use*—more data than the non-creationist. Price’s claim that everyone uses the same data suggests that Price does *not* actually use Scripture in scientific investigation.

Price believes science cannot study any of God’s actual acts of creation. This is because (1) God created with processes not occurring at the present (Price 1917b, pp. 127-128), (2) God constructed the world full of cycles (Price 1934, pp. 135-136), and the mode and tempo of creation cannot be determined at any point in a cycle, and (3) since science only studies the physical world (Price 1902, p. 72), it cannot study ultimate cause (Price 1902, pp. 18-19). When it comes to God’s actual acts of creation, Price believes science can only ‘prove’ creation by showing the impossibility of any sort of naturalistic origin.

3. Price’s Science

A. The Age of Things

Although Price believes the Solar System was created during the Creation Week, he believes the universe other than the Solar System was created at some unknown, distant time before the Creation Week (Price 1941, pp. 10-12) [NOTE: This is not the gap theory, for Price believes the universe was created before Genesis 1:1.].

Since Price believes life was created six or seven thousand years ago (Price 1902, pp. 113-114), and Price believes in a 144-hour Creation Week (*e.g.* the title of Price 1922) we deduce that Price believes that the Creation Week itself occurred six to seven thousand years ago. However, Price does not explain how he arrives at this age range. Although Price believes the archaeological evidence indicates humans had a recent origin (Price 1902, p. 124), he neither explains exactly what he means by that, nor does he quantify the calculation. It is most likely that Price is constrained to that age range by his understanding of Scripture. This age range puts an even greater constraint on the time of the Flood. And since Price believes that Scripture teaches a global Flood and an old-age interpretation of fossiliferous rocks is incompatible with a global Flood (Price 1917b, pp. 140-141), Price deduces that the old-age interpretation of fossiliferous rocks must be wrong. Thus, even though Price (1916, p. 210) believes that the earth *looks* old, he concludes that “...its many appearances of great age must all be deceptive.” (Price 1934, p. 44).

B. The Non-Living Creation

Price argues that the matter of this universe must have been created because matter cannot have arisen by any process known to us in the present. This is indicated by (1) the laws of conservation of energy and matter (energy and matter can neither be created nor destroyed) (Price 1913, p. 266), (2) the usable energy of the universe is decreasing (Price 1934, pp. 41-43)—*i.e.* the second law of thermodynamics, and (3) radioactive decay degenerates heavy elements into lighter elements (Price 1917b, pp. 23-26)—this last argument proposed before it was ever thought that heavy elements could be produced by fusion. Therefore, Price (1902, pp. 16, 72n) concludes that God created the matter of the universe.

Given that Price is writing before the first publication of

Precambrian bacterial fossils, Price believes many Precambrian rocks are completely void of fossils. Although he left it to others to determine *which* rocks were actually formed before the Flood, Price (1920a, p. 487) implies that many of these non-fossiliferous Precambrian rocks date from the ‘beginning’. Furthermore, Price does not specify what he means by the ‘beginning’.

C. The Creation of Life

Price argues that life must have been created by God because (1) (decades before genetic differences were discovered in cells and organisms) Price believes all cells are made of identical material, so the life and development of cells and organisms must be the result of God acting directly through the substance of the cell (Price 1902, pp. 58-60), (2) the law of biogenesis—that life can only come from life—requires something other than any modern process to produce life (Price 1902, pp. 115-119), (3) humans have never been able to create a living thing (Price 1917b, pp. 43-44), (4) physical matter lacks the ability to create something non-physical, like life (Price 1902, pp. 43-48) or human consciousness (Price 1902, p. 123), and (5) only God can create the souls found in animals and humans (Price 1902, pp. 33-35).

Price argues that life was created in the form of mature organisms in mature populations because (1) animals would need food (*e.g.* plants) immediately (Price 1934, p. 134), (2) immature animals would need parents (Price 1934, p. 134), (3) biology depends so much on on-going cycles, that each stage of many of these cycles must have been created in place for organisms to survive (Price 1934, p. 135), (4) many organisms in communities require a variety of other organisms to survive (Price 1924, pp. 204, 213), (5) Gen. 1:11 indicates trees were already created bearing fruit (Price 1934, p. 134), and (6) if God had the ability and desire to create life, it is most reasonable to assume that He created many different types at the same time (Price 1902, pp. 119-120).

Price (1924, p. 205) believes all conventional, biological, taxonomic groups are completely arbitrary. Price (1924, p. 94) believes the only non-arbitrary taxonomic group is the biblically-defined created kind (what Price calls a ‘natural species’ when he is being careful to distinguish this grouping from ‘species’)—a group of similar organisms surrounded by distinct differences from other organisms. Because Price believes that God commanded organisms to reproduce after their kind (Price 1916, p. 138), Price believes that the created kinds can be identified by hybridization (Price 1924, pp. 33, 96), with overall similarity used in a supplementary fashion (Price 1924, p. 149). According to the hybridization criterion, those organisms that can successfully reproduce with all the members of that group are of the same created kind. Using this hybridization criterion, Price believes that the created kind is more inclusive than the species (Price 1917b, pp. 71-76), and to be equated with “...at least the families, and in some cases the genera...” (Price 1924, p. 209). Price even proposes a few groups descended from common ancestors, and thus of the same created kind. These include the genus *Bos* (Price 1911, p. 57); the pigs (Price 1911, p. 57); the canids (Price 1911, p. 57); the ursids (Price 1917b, p. 71); the felids (Price 1917b, p. 71); the mammoth and living elephants (Price 1917b, p. 72); *Drosophila similans* and *D. melanogaster* (Price 1924, p. 40-41); and the equids (Price 1924, p. 97). Since Price also adopted the same hybridization criterion for

defining a species—or, more technically a ‘natural species’ (Price 1924, p. 104) or ‘true species’—as he did for defining a created kind, Price equates ‘natural species’ with the created kind [Note: Because Price equates created kind with ‘natural species’—a larger taxonomic group than species—and Price often refers to ‘natural species’ as ‘species’, it is often difficult to know what Price means by ‘species’ in any given work.]. Price (1924, p. 216) also realizes that identifying created kinds at a higher taxonomic level than the species solves the problem of fitting all the animal kinds onto the ark.

Price believes that a created kind cannot transform into another created kind, because

- (1) Mendelian genetics suggests there are natural limits to variation (Price 1911, p. 61);
- (2) organisms breed true to their kind (Price 1917b, p. 67);
- (3) microorganisms have bred true to their kind for *many* generations (Price 1917b, pp. 60-61);
- (4) we have never seen a new created kind come into being naturally (Price 1913, p. 266);
- (5) humans have never created a new kind by breeding (Price 1911, p. 61);
- (6) many of the gaps between higher taxa cannot, in principle, be crossed in any sort of step-wise manner (Price 1924, pp. 142-143);
- (7) many transitional forms and organs do not seem biologically viable (Price 1917b, p. 80);
- (8) natural selection eliminates less-than-fully-developed structures (Price 1924:79);
- (9) gaps between higher taxa are not bridged by fossils (Price 1902, pp. 128-129);
- (10) morphologically intermediate structures are lacking in both living and fossil organisms (Price 1925b, p. 34) [Note that since *Archaeopteryx* had ‘long feathers’ Price (1920a, pp. 509-510) believes it is actually a true bird, not a transitional form];
- (11) Price believes all biological transformation is degenerative (Price 1913, p. 213);
- (12) evolutionists cannot agree on evolutionary mechanisms to bridge gaps (Price 1925b, p. 31);
- (13) Price believes a mechanism for evolution’s source of variation is lacking, as Mendelism falsifies Lamarck’s theory of acquired characteristics (Price 1902, p. 123), and mutations involve a loss of information (Price 1917a, p. 311), are pathological (Price 1924, p. 41), and do not generate new taxa (Price 1911, p. 64n1); and
- (14) biological evolution from one created kind to another lacks any real evidence (Price 1921, p. 144). For example, in the case of embryological recapitulation, Price believes that since all organisms begin with a single cell, well-designed organismal development will pass through broadly similar stages so as to develop into an adult form (Price 1921, pp. 139-140). At the same time, the *differences* between phylogeny and ontogeny are contrary to deductions that necessarily follow from the theory of evolution by embryological addition (Price 1921, p. 140). Thus, although these differences falsify embryology theory, they pose no threat to creation

(Price 1921, p. 140) and suggest that embryological recapitulation is a mere analogy (Price 1924, pp. 17-18). As a second example, although certain characters allow organisms to be arranged into evolutionary phylogenies, other characters are homoplasous (shared by two organisms and not by any of their reputed ancestors) (Price 1924, pp. 112-129).

D. The Garden of Eden

Price believes that idyllic conditions prevailed between the end of the Creation Week and Adam’s Fall. “Before the entrance of evil, peace and happiness prevailed throughout the universe. Not only did inanimate nature act in perfect harmony with the divine will, but all created beings were also in perfect harmony with their Creator. Love for the divine Father was supreme, love for one another unselfish and impartial” (Price 1916, p. 88). This included a lack of carnivory in the original creation (Price 1917a, p. 281).

Because he believes that the Flood destroyed all the pre-Flood rivers, Price (1931, p. 96) believes there is no evidence to suggest that Eden was located anywhere in present-day Mesopotamia.

E. The Fall

Price (1916, pp. 89-90) believes that God cursed the creation in response to man’s sin. Price believes that the curse introduced suffering (Price 1931, pp. 124-125), death (Price 1931, pp. 124-125), and natural selection (Price 1925a, p. 90) into the biological world. Price (1925a, p. 98) also correctly identifies natural selection as a *negative* force, killing off mal-adapted organisms.

F. The Antediluvian World

Believing lithification was a chemical process similar to the setting of concrete, Price (1931, p. 100) suggests that the huge amount of sediment found in Flood sediments may have existed in the pre-Flood world in an *unlithified* state.

Price (1902, p. 97) believes that a sub-tropical climate covered the pre-Flood planet even into the arctic regions. This conclusion was based on (1) coral fossils and coal in the arctic regions [NOTE: Price formulated his ideas before there was paleomagnetic evidence for the motion of continents, and he died before plate tectonics was accepted in the United States], and (2) a fossil record lacking cold-designed organisms, but abounding in giant organisms (which Price believed indicated warmer conditions: Price 1913, p. 199).

To explain the existence of cold-adapted organisms in the present, Price (1906, pp. 73, 77) thought it likely that modern cold-adapted organisms lived at the highest (and coolest) altitudes of pre-Flood hills and mountains. To explain distinct biostratigraphic zones in the fossil record, Price (1931, pp. 98-99) also speculated that God may have created very strong biozonation in the pre-Flood world. Additionally, to explain the huge amount of plant material in the coal seams formed in the Flood, Price (1931, pp. 98-100) suggested that the plant material necessary to make coal had accumulated in the pre-Flood world for centuries preceding the Flood. Furthermore, to explain discontinuous Cenozoic deposits with terrestrial fossils, Price (1906, p. 78) suggests that large fresh-water lakes dotted the antediluvian landscape. Finally, by analogy with giant forms of antediluvian animals, and because humans were created in the image of God, Price (1924, pp. 211-212) believes antediluvian humans were giant in stature.

G. The Flood

Because of his understanding of Gen. 7:11, Price (1916, p. 206) believes the Flood was caused by a disruption of the ocean. Because there is so much water on the planet—enough to cover the land quite deeply (Price 1916, p. 206)—Price (1906, p. 85) believes that it wouldn't take much to cause the ocean waters to overflow the land in a global flood. Price (1916, pp. 206-207) even speculates that the Flood could have been caused by an astronomical disturbance, causing a wobble in the earth's axis of rotation which sloshed water out of the oceans.

Price (1902, p. 127) believes that the fossiliferous sediments of the earth contain indisputable evidence of having been formed in the Noachian deluge. Price (1906, pp. 45-48) believes the event was not long ago because he believes modern organisms are found in every biostratigraphic system. He believes the event was a flood because of shorelines or raised beaches found well above present sea level (1920a, p. 449) and because Price (1924, pp. 48-50) believed mammoths died by drowning. Price believes the event involved the ocean over the continent because of marine fossils found on the continents from every biostratigraphic system (Price 1911, p. 161), and because of examples of marine organisms mixed in with coal (Price 1920a, p. 498). Price (1906, p. 56) believes the event was global because fossils are found on every continent and country. Price (1911, p. 161) believes the fossiliferous rocks were deposited by moving water, apparently because Price believes sandstones are only deposited by moving water (Price 1920a, pp. 425-426). Price (1916, p. 207) believes the water of the Flood moved back and forth in the form of tidal motions because of the alternating terrestrial and marine strata—especially in the Carboniferous cyclothems. Price also believes that this event was catastrophic (*i.e.* quite unlike the present), for (1) there is no modern process which is systematically raising the oceans over the land or sinking the land under the oceans (Price 1911, pp. 161-162), (2) the deep ocean environment (where Price believes the fossil taxa to have lived) has no currents to explain the sediments (Price 1916, p. 55) and the terrestrial environment where the sediments *could* be formed lack the deep-sea organisms, (3) fossils in the present are not so beautifully preserved (Price 1906, pp. 54-61), nor so articulated (Price 1954, pp. 13-17), nor in such high concentrations (Price 1906, pp. 54-63), (4) fossils are found in sediments foreign to their life requirements, such as non-swamp plants in coal (Price 1917a, p. 164), corals in shale or sandstone (Price 1906, p. 58), and deep-sea organisms in sandstones and shales (Price 1906, p. 58), (5) closed bivalves (Price 1906, p. 58), empty brachiopods (Price 1906, pp. 58-59) and empty gastropods (Price 1954, pp. 13-15) suggest organisms were buried while the organisms were still alive, (6) fish have their spurs unfurled in fear (Price 1906, p. 56), and (7) polystrate fossils require very rapid deposition (Price 1917a, p. 164). Price believes the event was one, short-lived event (Price 1906, pp. 32-38) because (1) fossils evidence the same climate (Price 1931, pp. 46-47)—*i.e.* the same superiority of size and form (Price 1931, pp. 46-47), (2) successive strata contain the same fossils (Price 1931, p. 46), (3) any given type of fossil can be found in sediments of any degree of lithification (Price 1906, pp. 68-69), (4) ore deposits can be associated with fossils of any age (Price 1917b, pp. 107-108), (5) dating rocks by the fossils and fossils by the rocks is circular reasoning (Price 1931, pp. 10-11),

(6) Price believes there is no proof that any fossil is older than any other (Price 1906, p. 10), and (7) erosion-less conformabilities ('deceptive conformities') suggest there is little to no time between the laying down of successive strata (Price 1911, pp. 80-83).

Price rejects the global biostratigraphic column because (1) very little of the biostratigraphic column exists at any given location (Price 1906, p. 21n), (2) any biostratigraphic unit can be metamorphosed to look like crystalline rocks (Price 1906, pp. 22-23), (3) any biostratigraphic unit can be in the lowest stratigraphic position (Price 1906, pp. 21-23), (4) any biostratigraphic unit can conformably overlie *any* lower unit (Price 1906, pp. 24-25)—something referred to as a 'deceptive conformity' [now called a paraconformity], (5) any biostratigraphic unit can be at the surface in undisturbed horizontal layers (Price 1920a, p. 483), (6) identical organisms can be found in any pair of biostratigraphic units (Price 1925a, p. 42), (7) fossils are found out of order (Price 1924, pp. 61-63), and (8) biostratigraphic units can conformably overlie each other in *reverse* order [conventionally explained as overthrusts] (Price 1906, pp. 27-30). Thus, although Price believes the Flood waters were global, and that the Flood waters were moving (so as to produce strata), he seems to reject the possibility of global or trans-continental deposition. This is in spite of the fact that he seems to accept the geologists' claims that the Paleozoic and Mesozoic strata are widespread (Price 1906, p. 35). Price believes Flood sedimentation was local ("...geological formations merely represent *ancient floras and faunas* buried near to their former habitats...": Price 1924, p. 215). Consequently, Price accepts the validity of *local* biostratigraphic columns and *local* biostratigraphic terms, as long as no time is associated with those terms (Price 1931, p. 9). Price speculates that fossil order that *is* observed (in local biostratigraphic columns) is due to pre-Flood biozonation (Price 1913, pp. 165, 229) and sorting by water (Price 1931, pp. 98-99). In the case of mammoths, for example, Price suggests that they are preserved in surface sediments because their bodies floated through the waters of the Flood (Price 1924, pp. 52-53)—something that seems difficult to reconcile with mammoths being buried upright, as claimed by Price just a few pages before (Price 1924, pp. 48-50).

Price believes the global biostratigraphic column is completely artificial (Price 1916, p. 52). In the case of the Cenozoic biostratigraphic units, because Price believes many species claimed as extinct are actually living in our present world, Price believes Charles Lyell's arrangement of Cenozoic stages by percent extinct species is completely groundless (Price 1906, pp. 35-41). In the case of the Paleozoic and Mesozoic biostratigraphic units, Price believes that the great ages were imposed by Count de Buffon (Price 1911, p. 101), the idea of sequence was imposed by Alfred Werner (Price 1911, pp. 69-71), the dating by rocks by contained fossils was imposed by William Smith and extended by Georges Cuvier (Price 1911, pp. 70-73), and the fossils were arranged in an embryological sequence by Louis Agassiz (Price 1911, pp. 73-76). Since the embryological sequence often corresponds to the evolutionary sequence, Price believes the biostratigraphic column artificially places fossils in an evolutionary order. Because of the strong evolutionary bias of the biostratigraphic column, Price believes that characteristics of the fossil record that are *challenging* to evolutionary theory are especially strong evidence for the

artificial nature of the biostratigraphic column. This includes higher taxa appearing before lower taxa (Price 1924, p. 208), mass extinctions (Price 1924, pp. 58-59), stasis (Price 1902, p. 130), abrupt appearance (Price 1913, pp. 146-147), and ‘explosions’ (simultaneous appearance of multiple taxa) (Price 1931, p. 58).

Price believes the fossiliferous rocks are all the same age, because (1) Price believes them all to be cut in exactly the same manner by faults (Price 1913, p. 115n2), by ocean waves (Price 1913, p. 115n2), and by rivers (Price 1906, p. 31), (2) many fossil taxa have very long biostratigraphic range gaps (Price 1906, pp. 36-48), and (3) each biostratigraphic unit contains the kind of diversity found in just a single region of the earth, and not the whole planet (Price 1906, p. 44). Price accepts this singular age for the entire biostratigraphic column in spite of the difficulty that then results, in explaining Cenozoic sediments. Cenozoic sediments are not only more discontinuous than the widespread Mesozoic and Paleozoic sediments (Price 1906, p. 35), but they also contain more terrestrial fossils than marine fossils (Price 1906, p. 78). Price (1906, p. 78) believes that this can somehow be explained by fresh-water lakes dotting the pre-Flood landscape. Price (1906, pp. 37-40) also believes that this entire biostratigraphic column was produced in the very recent past because Price believes many fossil taxa are identical with modern taxa.

Price (1906, pp. 37, 59-60) believes that somehow associated with the Flood was a sudden freeze, as evidenced by mammoths and other organisms perfectly preserved in standing position with semi-tropical vegetation in their mouths and stomachs. Price does not indicate when in the Flood event this freeze occurs—whether at the beginning of the Flood, or at the end, or somewhere in between.

On the question of whether humans are found in Flood sediments, Price firmly believed human bones and artifacts had been found in Flood sediments as late as 1913, and provided examples (Price 1913, pp. 219-226), but expressed uncertainty on the matter in 1920 (Price 1920a, p. 523). By 1931 (p. 96), Price is offering explanations for why humans are *not* known from Flood sediments: (1) humans lived in other locations than the animals preserved in Flood sediments (Price 1931, p. 96), (2) God was thorough in destroying antediluvian humans (Price 1931, p. 96), (3) humans lived in a location not yet sampled in our investigation of the fossil record (Price 1931, p. 96); (4) humans were probably buried shallowly and decayed before fossilization (Price 1934, p. 25), and (5) evolutionists suppress human fossil finds (Price 1934, pp. 25-26).

Price suggests that receding Flood waters produced a number of geomorphological features, including the low topography of continental interiors (Price 1917a, pp. 197-198), raised shorelines and terraces (Price 1917a, p. 186), and erosional remnant mesas (Price 1931, p. 28).

H. Post-Flood Times

Price (1906, pp. 79-81) believes all the mountains of the earth were formed at the same time, late in the Flood or immediately thereafter (because they contain fossils from every biostratigraphic unit at their highest elevations), by processes quite unlike any going on in the present (since mountain-building is not occurring in the present). Price (1920a, pp. 463-464) suggests that it would be easier to form

mountains in a Flood model because the sediments would be easier to deform when they were as yet not fully lithified. In an effort to provide a mechanism for this mountain-building episode, Price (1920a, pp. 464-465) introduces a theory of differential thermal expansion and contraction of sediments.

Price believes in a post-Flood ice age based on (1) frozen carcasses of mammoths and other animals, (2) drift (unlithified diamictite spread across much of Europe and northern North America), and (3) grooves in crystalline rocks underlying the drift. Since the drift always overlies the fossiliferous strata when they are present, Price (1906, pp. 67-68) believes the drift was deposited after the Flood. Since grooves are not found when fossiliferous strata directly underlie the drift, Price (1920a, p. 520) reasons that the drift was deposited *soon* after the Flood when the Flood sediments were too soft to support grooves. And, since the drift was only deposited over *part* of North America and Europe, Price (1913, p. 227) concludes that the drift was deposited by a local or regional event. Yet, adopting the arguments of Henry Howorth, Price (1920a, p. 524) believes there are fatal problems for conventional ice age theory of multiple, massive, continental glaciations: (1) although the proposed continental glaciers were supposed to flow uphill, Price (1931, p. 91) argues that ice cannot flow uphill, (2) although the proposed continental glaciers were supposed to erode rock underneath the glaciers, Price (1931, p. 91) argues that Antarctic ice preserves, rather than erodes, the rock under it, and (3) (written before we understood how thick the ice is over Greenland and Antarctica) Price (1931, p. 90) claims that the thickness of proposed continental glaciers exceeded the thickness which causes ice to melt under its own weight. Therefore, to replace traditional ice age theory, Price (1917a, p. 188; 1924, p. 105; 1931, pp. 86-87) offers his own theory for a post-Flood, *regional* (non-global) ice age: (a) warm pre-Flood ocean water was left in huge basins on the continents (as evidenced by elevated shorelines and terraces around current inland lakes: Price 1917a, p. 188); (b) rapid cooling of the land after the Flood created a strong temperature gradient between land and lakes; (c) evaporation of warm water from the inland lakes generated high rainfall rates and foggy, damp conditions in the higher latitudes (creating, by avalanche, some of the ‘moraines’ at the base of mountains: Price 1931, pp. 32, 89), and (d) accumulation of snow in the mountains generated extensive mountain glaciers (creating other ‘moraines’ in mountainous regions: Price 1931, p. 92). Also following Howorth’s arguments, Price (1920a, pp. 519-524) suggests that the drift was deposited by water rather than ice. In particular, Price (1917a, p. 199; 1931, pp. 89-90) suggests the drift was formed by North Atlantic tsunamis carrying floating masses of ice across eastern North America and northern Europe.

Price felt that the recovery of the biological world after the Flood required ‘the supposition of miraculous intervention’ (Price 1916, p. 208), although he is not specific about where he feels such intervention is needed. Price considers post-Flood biogeography (e.g. how Australian marsupials got to Australia and edentates got to South America) a difficult problem, but not ‘entirely hopeless of explanation’ (Price 1931, pp. 105-106). On the other hand, the small number of ark representatives from each created kind, compared with the large number of named species in each created

kind of the present, suggests to Price (1917b, pp. 97-98) that a substantial diversification of form must have occurred following the Flood. Price believes this diversification (1) must have been very rapid (Price 1924, pp. 92, 104-109), (2) probably did *not* occur by means of any Darwinian mechanisms (Price 1924, p. 103), (3) involved organisms adapting to their environment (Price 1924, pp. 102-111), enhanced by the extreme conditions on the earth immediately following the Flood (Price 1924, p. 105), (4) was probably at least partly due to the expression of latent information (Price 1924, pp. 161-163) that God created in the original organisms (Price 1934, pp. 132-133), (5) involved ‘splitting and differentiation’ (Price 1924, pp. 34-36) in a way analogous to the splitting and differentiation of cells in an organism’s ontogeny (Price 1917b, pp. 64-68), (6) generated sterility between taxa, either as a divine design to preserve diversity within created kinds, and/or as a consequence of the degeneration of fertility (Price 1924, p. 97), (7) involved degeneration (Price 1911, pp. 65-67)—including decreasing longevity (Price 1916, p. 140)—since Price believes fossil taxa to be larger and better developed than modern taxa (Price 1906, pp. 70-72), and (8) provides an explanation for ‘evolutionary convergence’ among taxa within created kinds (Price 1925b, p. 33) as well as some of the vestigial organ claims (Price 1924, pp. 161-162)—the other vestigial organ claims being either false (Price 1924, pp. 159-160) or, as in the case of many of those claimed for humans, ‘trivial and childish’ (Price 1924, p. 159).

Regarding humans, other than a few fossils and artifacts that Price believed early on (before 1931) to be human, Price believes all hominid fossils—including ape fossils—date from after the Flood. Price (1913, pp. 226-227) believes the Cro-Magnon fossils are the oldest of all these fossils, and that Cro-Magnon Man was physically superior to modern humans, being larger in both body and brain size. Degenerating as a ‘natural consequence of sin’ (Price 1942, pp. 83-84), Price (1924, pp. 110-111, 210-211) believes all other hominids—including *Homo erectus*, Neanderthals, Piltdown Man, and even modern apes—were degenerate descendants of Noah.

Price believed the Genesis account of Babel is confirmed (1) by Babylonian inscriptions (Price 1911, p. 53), (2) by philology (having identified ‘fifty or seventy-five’ [Price 1913, p. 216], or ‘more than fifty’ [Price 1916, p. 125] languages that could not be derived from one another and thus must have been separately created), (3) by spreading out of humans from southwestern Asia (Price 1913, pp. 244-245), (4) the sudden appearance of advanced cultures all across the globe, when there is no evidence that culture can develop itself (Price 1911, pp. 49-51), (5) similarities in pyramids (Price 1911, p. 41), embalming (Price 1911, p. 42), hieroglyphics (Price 1911, p. 42), tibia-flattening (Price 1911, pp. 42-43), paintings (Price 1911, p. 43), temple architecture (Price 1911, p. 44), mound-building (Price 1916, p. 235), sacrificial systems (Price 1934, p. 40), and stone circles (Price 1934, p. 37) among the earliest cultures that suggest inheritance from a common source (Price 1906, pp. 82-83), and (6) similarities in Eden, Flood, and Babel traditions in multiple cultures that suggest a common memory (Price 1902, pp. 124-125). Yet Price (1913, pp. 215-216) also believed that God created the human races at Babel, for although the inter-breedability among human races indicate they are all of common descent (Price 1911, p. 57), there is no evidence

that human races change with the environment (Price 1913, p. 216) and ancient Egyptian art identifies the same races existed at the beginning of civilization as exist today (Price 1913, p. 216).

Because Price believes no uncivilized people ever became civilized on their own (Price 1916, pp. 124-126) and human culture naturally degenerates (Price 1916, p. 58), Price (1911, pp. 49-51) believes human culture was highest at the beginning of human history. Price thinks this conclusion is confirmed by (1) the quality of the most ancient cultures being equal to, or even better than, modern cultures (Price 1902, pp. 27-28), (2) the higher and monotheistic religions of the earliest cultures (Price 1911, pp. 47-49), (3) the widespread nature of Eden myths (Price 1916, p. 58), and (4) the higher previous culture implied by the oldest cultures (Price 1916, p. 58). Since Price (1911, pp. 51-52) believes the most common cultivated plants are nowhere found living in the wild, and cultivated plants cannot survive on their own in modern climates, Price (1911, p. 51) also believes agriculture originated in the mild antediluvian climate.

LOST CREDIT

According to Morris himself (1993, pp. 168-169), the geology of the early manuscripts of *The Genesis Flood* was “...essentially merely a survey of George McCready Price’s arguments”. But, since “...Price himself had failed to make much of an impact with these same arguments...” (Morris 1993, p. 169), Morris “...suggested that a new approach was needed...”—an approach that resulted in Whitcomb and Morris (1961). Most of the geology of Whitcomb and Morris (1961) is in a single chapter titled “Modern Geology and the Deluge” (Whitcomb and Morris 1961, pp. 116-211). Following are the arguments of the chapter in the order they first appear, with bold-faced type indicating arguments or quotes that closely mirror Price:

- (1) Fossiliferous rocks were laid down by moving water, by means of processes not occurring in the present. (pp. 124, 144-146, 202) [**“Almost all sedimentary rocks of the earth... have been laid down by moving waters. This statement is so obvious and so universally accepted that it needs neither proof nor elaboration.”**: p. 124; **“Most of the sedimentary rocks of the earth’s crust... have been laid down as sediments by moving water...”**: p. 144];
- (2) Sea level was lower in the past. (pp. 124-126);
- (3) There was much more volcanism during the deposition of the fossiliferous rocks than is occurring in the present. (pp. 126-127, 137-139, 201);
- (4) Mountain-building, quite unlike any geologic activity in the present, occurred more recently than the creation of the earth’s fossiliferous rocks. (pp. 127-128, 139-142, 201) [**“...the mountains... have all been uplifted essentially simultaneously and quite recently.”**: p. 128; **“All the major mountain ranges of the present world evidently were uplifted within the most recent eras of geologic history.”**: p. 142]
- (5) Fossils are much more abundant than would be expected with modern geologic process (pp. 128-130, 154-169, 202) [**“The richness of the deposits... accords very poorly with the uniformitarian notion that the relatively quiescent sedimentary processes of the present day, forming almost**

no fossils, can account for the extensive fossil-bearing strata.”: p.130; “...no modern parallels can be cited of the great fossil beds such as are found in the geologic column, and this is doubly true for... coal beds.”: p. 155; “*Preservation of the entire organism by freezing.*”: p. 156]

- (6) Because “**Geological dating and correlation are... based on the two assumptions of uniformity and evolution.**” (p. 132 in pp. 130-136), **pointing to fossils as evidence of evolution is circular reasoning** (pp. 134-135, 203-206) [“**The fossils alone are used to assign a geologic time to the rock strata-[p.204]tum, and yet this very sequence of fossils is said to constitute the greatest proof of organic evolution!**”: pp. 203-204], and **the biostratigraphic column is ‘basically falacious’** (p. 136). That the biostratigraphic column is invalid is evidenced by:
- Few biostratigraphic units are found at any given locality.** (pp. 135-136, 206);
 - Many biostratigraphic units are in the wrong order.** (pp. 135-136, 171-172 180-200, 208-209);
 - Individual fossils are found in the wrong order.** (pp. 171-176, 206-207);
 - Organisms long thought extinct found living.** (pp. 176-180, 206) [“...many creatures... apparently skipped all the way from very early periods to the present without leaving any traces in the intervening periods.”: p. 206];
 - Biostratigraphic units can be missing with no evidence of missing time (deceptive conformities).** (pp. 136, 207-208);
- (7) Examples of deposition (‘geosynclines’, huge pediments, huge alluvial fans) and erosion (peneplains, **underfit rivers**) cannot be explained by modern processes of deposition and erosion. (pp. 146-154, 201-202)
- (8) Continental glaciation occurred in the past, unlike any glacial activity occurring in the present. (pp. 142-144, 201)

From this is evidence that Whitcomb and Morris’s ‘new approach’ still borrowed heavily from the arguments of George McCready Price. Yet, Whitcomb and Morris (1961) acknowledges Price’s contribution only on pages, 184, 185, and 189—all in reference to out-of-order sequences. Whitcomb and Morris (1961) failed to give proper credit to George McCready Price. As a consequence, most people fail to realize Price’s importance in the early history of creationism and in the contributions of Whitcomb and Morris.

ECHOES OF PRICE IN MODERN CREATIONISM

Given how important the geology of Whitcomb and Morris (1961) was to young-age creationism to follow—and creationism of today—George McCready Price’s contributions are almost certainly important to modern creationism. However, there is inadequate space in this short contribution to carefully document the intellectual lineage between the views of Price and those of modern young-age creationism. All that will be done here is note the similarities between Price and modern creationism, suggest that these similarities might actually be due to an actual intellectual lineage, and suggest that careful documentation of that intellectual heritage might constructively contribute to modern model-building in creationism.

A. Philosophy

Price’s high view of logic and mathematics seems to have been a prime motivator in his work in creationism. Because he seemed to feel that mathematics and logic were part of the very makeup of God, he felt comfortable with God having created the universe as a second sacred book of revelation—a book from which definitive arguments *could* be made for God and in support of the claims of Scripture. There seem to be at least five dangers with this approach. First, believing God to be constrained by what is effectively *human*-discovered logic may not be a proper understanding of God, thus it may result in improper theology. Second, referring to a wordless creation as a ‘book’ is not only inaccurate, but a person might be inclined to go a step further and say that human *interpretation* of the creation—*i.e.* science—is what has the status of divine revelation. This, in turn, might cause someone to find ways to *interpret* Scripture so as to fit the (current) interpretation of science. Third, if God operates by logic, and created humans to think along similar lines, and created the physical world so that logic could be used to argue for God and Scriptural confirmation, then evidential creation apologetics would seem fully justified. Fourth, if creation has been created to *confirm* Scripture, people (like Price) may be tempted, in practice, to subordinate Scripture to science. In this approach, Scripture would not be where a person started their science, Scripture would be rarely (if ever) referred to in the process of doing science, Scriptural claims would not be utilized as data, and Scripture would, at best, only be utilized at the end of scientific investigations (to, perhaps, indicate where to *end* scientific investigations). Fifth, if creation is considered necessary enough in apologetics to argue for creation events (and science cannot even be used to investigate anything about the creation itself), then one can believe that the creation logically argues against all alternative possibilities of origin. If this is not true (and/or someone hasn’t considered all alternative arguments), arguments against wrong ideas do not logically *prove* creation. Considering these dangers, it seems that Price’s high view of logic may be echoed in the old-age creationists’ ‘two-book approach’, old-age creationist attempts at accommodation, modern creation apologetics, a general reluctance to include Scripture in creationist studies, a tendency to argue for creation only by arguing against evolutionary theories, and claims that creationists and evolutionists all use the same data, merely differing in their interpretations.

Price advocates the kind of strongly inductive philosophy of science that was popularized by William Whewell’s *History of the Inductive Sciences* (1837; 2nd and 3rd editions 1847 and 1859). Price’s publications predate the revolution of thinking in the philosophy of science that occurred during the twentieth century (*e.g.* the argument against induction and for deduction by Karl Popper in the middle of the century, and the arguments against positivism by Thomas Kuhn and others in the latter quarter of the century) that led to the rejection of this inductive philosophy of science. Nonetheless, the philosophy of science advocated by Price is echoed in modern beliefs that (1) proof and certainty are possible in science, (2) there is a ‘scientific method’, (3) the overthrow of Aristotelianism in the era from Galileo to Newton was the birth of ‘modern science’, (4) there is a hierarchy of certainty and quality of science starting from the highest sciences like physics and astronomy and running down through chemistry

and geology, then through biology and on to the non-sciences, and (5) the more mathematical a theory or discipline, the more certain and/or true it is.

Price believes that although the creation may *look* old in many ways, those appearances of great age must be ‘deceptive’. Given Price’s high view of creation as a sacred book of revelation, Price almost certainly does *not* mean by this that the creation itself (or its Creator) is actively deceiving human beings. Yet, this *misunderstanding* of Price may be echoed both in naïve young-age creationist appearance-of-age arguments and in old-age creationist criticisms that such arguments make God a deceiver.

B. Biblical Interpretation

Several points of Price’s biblical interpretation are probably a direct consequence of teachings more or less unique to Seventh-Day Adventism. These same beliefs in modern Seventh-Day Adventists would more properly be echoes—along with Price’s beliefs—of SDA teaching than echoes of Price’s beliefs. However, other SDA teachings are almost certainly foundational to young-age creationism as a whole as it developed through the twentieth century. The prominent role of a literal interpretation of the Sabbath in SDA teaching played a powerful role in arguing for a 144-hour-long period of creation, a perfect initial creation, distinct processes of creation and sustenance, and in arguing against the day-age theory. Biblical arguments for young-age creation are strongest from an SDA perspective, and there is little doubt that young-age creationism as a whole owes its existence (or at least popularity) to this SDA perspective in general, and perhaps to Price’s elaboration of it in particular. It may also turn out that Price’s realization (somewhere between 1906 and 1911) that God’s processes of sustenance are not the same as His processes of creation was the introduction of this important idea into creationism.

C. Biology

Although Price believed that God commanded organisms to reproduce ‘after their kind’, he nowhere explains exactly from whence this conclusion is derived. Because this claim does not seem to be based on Scriptural information, Price’s position may be echoed by a deep-seated conviction among many modern creationists that God actually did make such a command.

Technically, Price believed in the fixity of created kinds and *not* in the fixity of modern species. And, of the many species definitions being debated among biologists in Price’s day, Price thought one of them (involving inter-fertility) was appropriate as a definition of a created kind. *But*, rather than coopting that particular species definition as a definition of the ‘created kind’, Price argued that that particular definition should be adopted as the appropriate definition of *species*—or, when he was being careful in his terminology (which was rarely the case), a ‘natural species’ or a ‘true species’. The result is that a host of passages in Price’s works *sound* like Price believed in the fixity of modern species. This apparent conflation of fixity of kinds with fixity of species in Price’s works is echoed in modern creationism by adoption of Mayr’s biological species definition, the belief that infertility of hybrids means those things hybridized are not from the same created kind, claims that living and fossil species are identical when they are *not*, and modern accusations that young-age creationists believe in the fixity

of species.

Price authored most of his works during the period when the somewhat mystical inheritance theories of Aristotle through Lamarck were being replaced with Mendel’s radically different mechanistic (particle) theory of inheritance. As exciting that this new Mendelian genetics was, this was decades before the coding nature of DNA was discovered. Price would not live to see the emergence of the theory of inheritance which is being discussed today—one based neither on non-physical essences nor mechanistic particles, but on language. Price’s understanding of Mendelian genetics suggested organisms were created with a finite number of particles of inheritance, some expressed and some not, depending on how they were combined. This initial pool of information automatically limited possible variation (thus allowing for fixity of kind), and suggested a rather logical form of diversification (different apportions of the originally large mass of hereditary particles into separate lineages). Although neither of these follow in a modern (language) understanding of inheritance, echoes of Price can be seen in modern creationist claims of ‘natural limits to variation’, and post-Flood diversification by splitting and segregation of genetic material.

A common theme throughout Price’s works is the degeneration of the creation following man’s Fall. He believes matter to be degenerating by radioactivity, energy to be degenerating by the second law of thermodynamics, non-human organisms to be degenerating by decreasing in size, beauty, longevity, and fertility, humans to be degenerating by becoming less technologically capable in culture, diverging from monotheism in religion, and decreasing in size, beauty, and longevity. Price’s overall perspective of degeneration is echoed in modern claims of giant dinosaurs because of greater longevity, giant human fossils, and impressive achievements of ancient cultures.

D. Geology

Writing before the discovery of a direct way of determining paleolatitude (namely paleomagnetism), and before persuasive arguments existed for the motion of continents, Price believed (as did most scientists at the time) that warm-climate-designed fossils in polar regions meant that all the fossils of the fossil record lived in a sub-tropical climate. He also felt that the larger-than-modern size of fossil organisms argued for a warmer-than-modern climate. Subsequent to Price’s contributions, the observation that *colder* climates tend to favor larger mammals and birds has nullified many of Price’s warm-climate evidences. Paleomagnetism and plate tectonics have also placed the *burial* location of many currently high-latitude fossils at low latitudes. These reinterpretations, combined with evidences of colder climate, have led to a general rejection of a uniform, subtropical, pre-Flood climate. Nonetheless, echoes of Price’s uni-temperate climate are seen in modern adherence to the canopy model, and associations of warm climate with large body size.

A majority of Price’s argumentation is a critique of the geological column. Almost all of that critique actually argues for rapid deposition of the lithostratigraphic column. Only three claims lead Price to reject the validity of the *order* of the global biostratigraphic column: (1) reversals of the order of Paleozoic

and Mesozoic biostratigraphic units, (2) out-of-order Paleozoic and Mesozoic fossils, and (3) Cenozoic fossil species discovered alive in the present. However, (1) in spite of Price's arguments to the contrary, all the reversals of order in strata really *do* seem to be caused by fault-induced reversals of the original order of deposition, (2) few, if any, of the out-of-order fossil claims hold up under scrutiny, and (3) the Cenozoic species that Price claims are living in the present really are *not* identical with modern species. The failure of Price's arguments, combined with radiometric dates unavailable to Price (the sequence of which dates confirm the biostratigraphic order) suggest the order of the biostratigraphic column is inviolable, or nearly so. Nonetheless, Price's rejection of the global biostratigraphic column is echoed in certain modern creationist circles by the rejection of the biostratigraphic column, biostratigraphic terms, and long-distance correlation.

Price acknowledges differences between the widespread, typically lithified, and typically deeper Paleozoic and Mesozoic sediments on the one hand, and, on the other hand, the isolated and typically unlithified and superficial sediments of the Cenozoic. Price even admits that the Cenozoic sediments are very difficult to explain if all the sediments are thought deposited in the Genesis Flood. Yet, Price rejected the more natural interpretation that the Cenozoic sediments were deposited *after* Paleozoic and Mesozoic sediments. Instead, Price chose the philosophically simpler idea of placing all evidence of catastrophism into one catastrophe (the Genesis Flood). Price did something similar with the deposits of the Pleistocene. At great distances from present mountains there are huge moraines which are continuous with the very much smaller moraines of present glaciers. Evidence like this forces Price to believe in more extensive post-Flood glaciation than is going on in the present. Yet, Price adopted Henry Howorth's rejection of conventional ice age theory. Furthermore, Price admitted that including the demise of mammoths in the Flood makes it very difficult to explain the superficial position of frozen mammoths. Nonetheless, Price adopts Henry Howorth's water-laid interpretation of Pleistocene deposits, and includes their deposition in the Genesis Flood. In the case of both Tertiary and Quaternary sediments Price adopts the philosophically simpler proposal of a single catastrophe in favor of more natural interpretations of the data involving multiple catastrophes. Price's struggle explaining Cenozoic and Quaternary sediments is echoed in modern creationist disputes about proper placement of the Flood/post-Flood boundary, the true extent of Flood sediments, the stratigraphic context and quality of preservation of frozen fauna, and how soon after the Flood the ice age occurred.

Price changed his mind on whether human remains were known from Flood sediments. Even though Price concluded fairly early on that humans were *not* evidenced in Flood sediments, Price's earlier acceptance of human remains from the Flood is echoed in modern creationist arguments for human remains in Flood sediments.

CONCLUSION

For the first couple decades of the twentieth century, George McCready Price was the most well-known young-age creationist in the world. In the Scopes Trial of 1925, when Clarence Darrow forced William Jennings Bryan to list the names of all knowledgeable people who advocated the creationist position, George McCready

Price was the only name Bryan could produce. Price was also a prodigious writer over more than half of a century—even in Christian circles outside of Seventh-Day Adventism. If, in the general population, interest in young-age creationism increased in the first half of the twentieth century—and the number of people publishing on the subject indicates it did—George McCready Price played a pivotal role for that ebb of interest.

At the same time, Price's publications, teaching, and (short-lived) deluge society incubated the next generation of creationists. For example, although Henry Morris is frequently pointed to as the father of modern creationism, a young Henry Morris had a 'life-changing experience' reading Price's *Illogical Geology*. Morris also read most of Price's books, and became a member of Price's society. Furthermore, a comparison (above) of Morris's main geology chapter in *The Genesis Flood* with Price's works leaves no doubt that Price's work formed the major backbone of the geological argument of the *Genesis Flood*. It would seem unavoidable that Morris's influence on later creationists would result in modern creationism being substantially impacted by the works of George McCready Price. Many of the 'echoes' of Price's work in modern creationism mentioned above are probably rooted in the claims of George McCready Price.

By one hundred years ago, Price had laid out most of the major elements of modern creationism. He was already speaking of God's acts of creation in the Creation Week, of man's Fall and the global changes that came as a result, of the global Flood and its creation of miles of sediment and billions of fossils, of post-Flood diversification and dispersion of plants and animals, and of the Babel dispersion of humans, their tongues, and their cultures. He had already changed his position on issues that are controversial today (*e.g.* whether humans are known from Flood sediments), and he pointed out difficulties in interpreting data that creationists struggle with to this day (*e.g.* the inclusion of Cenozoic sediments in the Flood; the nature of the ice age; how much degeneration the creation has experienced). Price adopted perspectives that led him into questionable territory, in the very areas where creationism has struggled over and over again (*e.g.* the role of Scripture in science; the role of physical data in evangelism; the definition of science; the definitions of created kinds and species)

Part of the tragedy in all this is that most modern creationists know nothing about the importance of George McCready Price in their present discussions. Ultimately, this seems to go back to a decision of Whitcomb and Morris not to cite Price's intellectual contributions to their work. It may even be true that Whitcomb and Morris' example was followed by other creationists as if it were proper procedure in creationist studies. For whatever reason, not citing the intellectual contributions of other creationists—*i.e.* effectively the sin of stealing intellectual property—has become something of the norm in creationism. One of the consequences of this is that the intellectual history of modern creationism is spotty at best, and unknown in most instances.

It is time we reconstruct the intellectual history of creationism. From here we need to determine where George McCready Price got his ideas. In some cases, Price identifies the sources of his ideas—scientists like William Dawson, popular writers like

Henry Howard, and Seventh Day Adventist writers like Ellen G. White. In other cases Price does not identify his sources and determining his sources will be more difficult. But from research of this sort we can determine what ideas are actually the product of George McCready Price himself, and thus what was his true intellectual contribution. While, however, we are identifying the true intellectual contribution of Price, we need to be determining what influence Price had on others. How many of what this article identifies as ‘echoes’ of Price actually did come through the work of Price? How much of Price’s work—both that portion borrowed from others and that portion birthed in Price’s mind—was passed on to others? Who passed it on, and what was their contribution? How much of what we believe or debate about today is based on Price? How much of what we believe today is no longer justified, but believed only because it was passed on? How much of the discussion has been lost along the way that might actually be valuable to us in our discussion today? These are a few of the many things we could come to understand as we reconstruct the intellectual history of our discipline.

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THE AUTHOR

Kurt P. Wise, B.A. (geology, University of Chicago), M.A. & Ph.D. (paleontology, Harvard University), has been Professor of Natural Science and Director of the Creation Research Center at Truett McConnell University since 2009. Before that he was on the faculty of the Southern Baptist Theological Seminary and Bryan College. Over the last thirty years, Dr. Wise has been active in the development of creation biology and geology, including baraminology, catastrophic plate tectonics, and the founding of the Creation Biology Society and the Creation Geology Society.