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The Historical Adam

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The discovery of prehistoric humans has cast doubt on the biblical date for Adam. In this paper, I demonstrate that it was Augustine, and not Scripture, who asserted that Adam was the ancestor of all humankind. By rejecting this assumption of Augustine, Adam can be placed at the biblical date of 4000 BC. Furthermore, by assuming that Adam was one of the prehistoric humans living in 4000 BC, several difficulties with the traditional interpretation of the story of Adam and Eve are eliminated.

Adam's Place in History

The Problem of Adam

Roman Catholic Henricus Renckens said:

If there is one idea to which we must say goodbye once and for all, it is that of the traditional period of four thousand years between Adam and Christ. It is quite certain that this figure is at least ten times too small, the truth being in terms of tens of thousands of years.¹

In this paper,² I will demonstrate that this statement is entirely wrong and that the biblical date of 4000 BC for Adam is historically reasonable. The demonstration will be faithful to both Scripture and the evidence for prehistoric humans implied by Renckens.

To identify the problem of Adam, we first must determine exactly what the biblical story of Adam includes. The story begins in Gen. 2:7: "God formed man from the dust of the ground and breathed into his nostrils the breath of life, and man became a living being."³ God then places Adam in the Garden of Eden located in Mesopotamia where Eve is made from Adam's rib. Later, Adam and Eve eat of the forbidden tree of the knowledge of good and evil and are banished from the Garden of Eden by God.

After leaving the Garden, Adam and Eve have children. The Bible lists their descendants with their ages; the date of 4000 BC for Adam and Eve is determined from these data. Also, the Bible gives other information about these descendants that permits correlation between the biblical dates and those from archaeology. Thus, descendants in the seventh generation after Adam are working with bronze in agreement with the beginning of the Bronze Age, about 3500 BC.⁴

But this is not the whole story. In Romans, Paul compares Adam to Christ: "For just as through the disobedience of the one man the many were made sinners, so also through the obedience of the one man the many will be made righteous" (5:19). Here Paul introduces the connection between Adam's disobedience in Eden and all humans becoming sinners. From this connection, Augustine (circa 400 AD) concluded that all humans inherited Adam's sin because Adam was the ancestor of all humankind.⁵ This sin, which is inherited by all humans from Adam, is called Original Sin.

This account of Adam and Eve was acceptable until prehistoric humans, *Homo sapiens*, were discovered by the paleoanthropologists. Since these creatures lived more than 100,000 years before Adam⁶ and across the surface of the earth, they could not biologically inherit Original Sin from an Adam living in Mesopotamia in 4000 BC.

The Problem of Adam Today

Renckens is not the only investigator to recognize the difficulties for the interpretation of Genesis raised by the discovery of prehistoric humans. Listed below are four



The biblical date of 4000 BC for Adam is historically reasonable.

In 1950, **John A. McIntyre** received a Ph.D. in physics from Princeton University under the supervision of Robert Hofstadter. Subsequently he accompanied Professor Hofstadter to Stanford University where they carried out the electron scattering experiments for which Hofstadter received the Nobel Prize in 1962. After spending six years on the faculty at Yale University, McIntyre went to Texas A & M University in 1963 to direct the nuclear physics research program at the new Cyclotron Institute. In 1995, McIntyre was made Professor Emeritus at Texas A & M University. Jack has served on the Executive Council of the American Scientific Affiliation. As a active fellow in the ASA, he currently is serving on the Editorial Board of our journal. Jack and his wife Madeleine are charter members of a new congregation of the Presbyterian Church of America in Bryan, Texas. His email address is jmcintyre@physics.tamu.edu

contemporary examples of difficulties with the interpretation of Genesis and prehistoric humans.

1. *The Council of Trent (1546)*. The following decision of the Council of Trent must be accepted by Catholics as authoritative:

Adam's sin, transmitted by propagation, is present in all humans and is removed only by the merit of Christ.⁷

Since Adam's sin is transmitted by propagation, all humans must be biological descendants of Adam. Consequently, Adam must have lived tens of thousands of years before Christ, as Renckens asserts.⁸

2. *The Westminster Confession of Faith (1647)*. Although their confessions of faith do not have the dogmatic authority of the Roman Catholic Councils, Protestants must still be concerned with the truth of their confessions of faith which were written within a century of the Council of Trent. For example, the *Westminster Confession of Faith* states:

They (our first parents) being the root of all mankind, the guilt of this sin was imputed and the same death in sin and corrupted nature conveyed to all their posterity, descending from them by ordinary generation.⁹

Just as for the Council of Trent, Adam's sin is conveyed to humankind through ordinary generation.

The Roman Catholic and Protestant Confessions of Faith assume that Adam is the ancestor of all humankind.

3. *Blocher's "Original Sin" (1997)*. While the Councils and the Confessions continue to pronounce an authoritative understanding of Original Sin, they are creatures of the past. They were written before we were aware of the existence of prehistoric humans. For a contemporary evaluation of the influence of prehistoric humans on scriptural interpretation, we quote from *Original Sin* published in 1997 by evangelical Reformed theologian Henri Blocher:

Though we feel uncomfortable with all the uncertainties when we try to correlate scientific data and the results of a sensible interpretation of Genesis 1-4, we may maintain as plausible the hypothesis that the biblical Adam and Eve were the first parents of our race, some 40,000 years ago.¹⁰

Again, Adam is the ancestor of all humankind and is dated long before the date of the farmer in Genesis.

4. *Contemporary evangelical Christian research articles concerning the relationship between Adam and prehistoric humans*

(1996-1999).¹¹ In these three articles, Adam is dated from 400,000 BC to 100,000 BC. In all cases, the dating is selected so that Adam can be the ancestor of all humanity.

In summary, both the Roman Catholic and Protestant Confessions of Faith assume that Adam is the ancestor of all humankind. Furthermore, a significant number of contemporary evangelical Christians concur in this opinion.

An Insight from Atomic Physics

We digress here to recall a situation in atomic physics where an unsuspected assumption led to contradictory results. In 1913 Neils Bohr introduced his model for the atom, a heavy nucleus surrounded by orbiting electrons. This model revolutionized the study of atomic physics by explaining, for the first time, the colors of the light emitted by atoms. However, the model was artificial; the motions of the electrons in their orbits contradicted well-established laws of physics. It was evident that there was a lot of truth in Bohr's model since it gave the colors of the light but clearly something was wrong when the laws of physics had to be violated to describe the electron orbits.

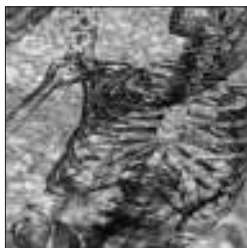
Werner Heisenberg identified the trouble with Bohr's model when, in 1925, he noted that experimental data could be obtained for the colors of the light emitted by the atoms but there was no experimental evidence for the electron orbits. He, therefore, recast Bohr's model of the atom so that only the light colors appeared in the model and the unobservable electron orbits were eliminated. With this new expression of the model, the atom was no longer described by classical mechanics (electron orbits) but by quantum mechanics (probabilities of finding an electron). All of the observations of atomic structure, as well as all of the rest of physics, could now be explained in exquisite detail with the new quantum mechanics.

We now apply Heisenberg's procedure of eliminating unobservables to the problem for the date of Adam.

Adam in Eden in 4000 BC

In the study of nature, an "unobservable" is something that can be talked about but cannot be measured (observed in nature). As discussed above, such an "unobservable" was the orbit of an electron in an atom.

In the study of Scripture, an "unobservable" is something that can be talked about but cannot be observed in Scripture. Such an "unobservable" in connection with Original Sin is the means of the transfer of Original Sin from Adam to humans. Scripture talks about the transfer of Original Sin in Romans 5, but it does not tell us how the transfer occurs. Only a comparison is made: the transfer of sin to humankind through the disobedience of one man, Adam; and the transfer of righteousness to humankind through the obedience of one man, Christ.



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The biblical passage does not mention how sin was transferred to humankind by Adam nor how righteousness was transferred to humankind by Christ. In particular, Romans 5 does not say that Adam is biologically related to all humans any more than that Christ is biologically related to all humans. It was Augustine who assumed that Adam was the biological ancestor of all humanity. Augustine's assumption is the "unobservable"; it is not in Scripture, and so it can be rejected.

Neither space nor time is considered in the process of the transfer of righteousness and of sin. Christ could have been crucified anywhere, at any time. And, following the comparison in Romans 5, Adam could have sinned in any place, at any time. Thus, insofar as Romans 5 and Original Sin are concerned, Adam could have lived anywhere and at any time.¹² And, because Adam could have lived anywhere and at any time, we can select for Adam the biblical Garden of Eden in Mesopotamia at the traditional biblical date of 4000 BC. (From now on, we will use "4000 BC" to represent the biblical date.)

According to archaeologists, other prehistoric humans were in Mesopotamia at this time. But the Genesis account also implies the presence of other humans with Adam. Adam's son Cain is concerned that other humans will kill him. Cain finds a wife and builds a city. And in Gen. 6:1, we read: "When men began to increase in number on the earth and daughters were born to them, the sons of God saw that the daughters of men were beautiful, and they married any of them they chose." The sons of God would be Adam's family (in Luke 3, Adam is called the son of God). The daughters of men would be the daughters of the other men in Mesopotamia.

We can object to the assumption that Eve was only one of the many *Homo sapiens* living in 4000 BC. How could "Eve become the mother of all the living" (Gen. 3:20) if other people were living at the same time? The answer is, as Augustine noted, that Eve's relationship to Adam is the same as that of the Church to Christ.¹³ Thus, Eve represents the Church that is the mother of all believers. Eve is the spiritual mother, not the biological mother, of all the living.

There appears then to be no reason to doubt biblical history back to the creation of Adam in 4000 BC. This conclusion contradicts Renckens' assertion: "If there is one idea to which we must say goodbye once and for all, it is that of the traditional period of four thousand years between Adam and Christ."¹⁴

"The Creation" in 15 Billion BC

We turn now to Scripture to extend biblical history back to the beginning of time. This beginning is described in Gen. 2:4: "When the LORD God made the earth and the heavens." After two obscure and controversial verses, the creation of Adam is described in Gen. 2:7: "God formed man from the dust of the ground and breathed into his nostrils the breath of life, and man became a living being." From reading these Scriptures, Augustine confessed: "I own I do not know what ages passed before the human race was created"¹⁵ Augustine recognized, from Scripture alone, a time interval of unknown duration between the creation of the universe in Gen. 2:4 and the creation of Adam in Gen. 2:7.

The duration of this time interval remained unknown until 1965, when the discovery of the cosmic microwave background radiation convinced scientists that the universe has been expanding from a Big Bang that occurred 15 billion years ago. Scientifically, this Big Bang, at the beginning of time, corresponds to the creation of the earth and the heavens in Gen. 2:4. The duration of Augustine's unknown time interval between Gen. 2:4 and Gen. 2:7 is now known to be an enormous 15 billion years. The discoveries of science enrich the history in the Scriptures; they do not change it.

Analysis of Adam's Place in History

Adam's place in history at 4000 BC has been securely established. The scientific discrepancy with this Genesis date, resulting from the discovery of prehistoric humans, has been removed by recognizing that Augustine, not Scripture, asserts that Adam is the ancestor of all humankind. The Big Bang, 15 billion years ago, has been located in Gen. 2:4 with Adam's creation in 4000 BC appearing in Gen. 2:7. Biblical history extends seamlessly from Abraham in 2000 BC, back through Adam in 4000 BC and, finally, to the creation in 15 billion BC.

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With Adam and Eve in the Garden of Eden in 4000 BC, we can read the Bible as a historical book just as Jesus and the Apostle Paul did. We no longer need to decide whether the record of Adam and Eve is a myth or a saga or an aetiological account. Taking the biblical record at face value as did Jesus and Paul, Adam died when Noah's father was 56 years old and Noah died when Abraham was 60 years old. Thus, the events in the Garden of Eden were reported directly by Adam to Abraham with only Noah and his father as intermediaries. And, with Abraham, we have reached historical memory. It is reasonable to believe in the historicity of Adam and Eve in the Garden of Eden in 4000 BC.

The historicity of Adam and Eve is based, then, entirely on the biblical record. The additional evidence from science confirms and enriches this record; it does not alter it.

Adam as an Evolutionary Man

As seen above, both the Scripture and the scientific evidence agree on Adam's place in history. We turn now to the scriptural and scientific evidence for the nature of Adam himself. Of course, we could accept the traditional Adam of the Christian church. However, in a remarkable way, the recognition that humans have an evolutionary inheritance clarifies the scriptural account of Adam and Eve. I will demonstrate how the recognition of humanity's evolutionary inheritance removes gaps or puzzles associated with the traditional Adam. It is almost as though the Author of Scripture, the Holy Spirit, always knew about humanity's evolutionary nature while the interpreters of Scripture who created the traditional Adam were, of course, ignorant of evolution.

In this part, we derive from Scripture the story of Adam and Eve, assuming that Adam is a man who has inherited an evolutionary nature.

The Creation of Adam

The account of Adam's creation is a typical expression of God acting in history. And when Scripture describes God acting in history, natural historical events are also occurring. For example, in the historical Book of Judges, Scripture says: "God gave Israel into the hands of the Midianites" (6:1). This action of God corresponded to the historical occurrence of the Midianites invading Israel from the desert on their camels.

The formation of Adam from the dust of the ground corresponds, then, to a historical event. Gen. 2:7 says that "God breathed into the man the breath of life and he became a living being." In 1 Corin. 15:47, Paul quotes this passage and associates Adam as a "living being" with his physical nature as "the dust of the earth." Even more to the point, Gen. 1:30 associates the same "breath of life" found in Adam with "the breath of life" found in "all the beasts

that move." Thus, as Calvin noted, both the animals and Adam have the "breath of life."¹⁶ Genesis implies then a close, even an evolutionary, relationship between Adam and the animals. This observation leads us to the historical event associated with God's creation of Adam.

This historical event would be God's selection of one of the prehistoric creatures (*Homo sapiens*) living at the time of Adam's creation.¹⁷ God placed this selected Adam in the Garden of Eden to be the representative of all humanity.¹⁸ In like manner, 2000 years later, God would select another man, Abraham, and direct him to Canaan to be the father of his chosen people.

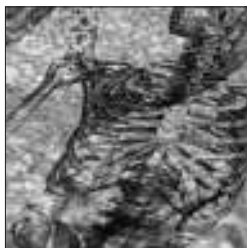
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Scientifically, Adam was originally an evolutionary *Homo sapiens* who was formed from the dust (atoms) of the Big Bang. The formation of Adam extended over a period of 15 billion years, from the production of the atoms in the Big Bang, through the coagulation of these atoms into the sun and the earth and finally, to Adam himself. Paleontologists, however, define *Homo sapiens* as modern man on the basis of his fossil characteristics. Thus Adam, the *Homo sapiens* selected by God, was not yet a religious man with a conscience.

As the reference above to God's actions in the Book of Judges demonstrates, God's selection of an existing *Homo sapiens* to be Adam is compatible with God's historical procedure. Even for the incarnation of the Son of God, Mary was selected to carry Jesus in her womb. In contrast, the traditional Adam of the creeds was created directly as an adult from the dust of the ground.

Adam Becomes a Sinner

Adam sins by disobeying God's command. God placed Adam, the *Homo sapiens*, in the Garden of Eden and commanded him not to eat of the tree of the knowledge of good and evil. But Adam and Eve were evolutionary creatures, with natural drives and desires. They were clever animals behaving according to their instincts. They never before had been given a command requiring obedience. Eve, with her evolutionary nature, naturally responded to the attractiveness of a fruit that was "good for food and pleasing to the eye, and also desirable for gaining wisdom" (Gen. 3:6). Consequently, she (and Adam) ate the



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fruit. They yielded to their evolutionary desires and sinned by disobeying a direct command of God.

Adam became a slave to sin. When he ate of the forbidden tree, he acquired the knowledge of good and evil. God's law was now written on his heart so that he would sin whenever his natural instincts contradicted God's law because "through the law we become conscious of sin" (Rom. 3:20). Thus Adam was no longer simply a clever animal. He became a slave to sin because his evolutionary instincts were at enmity with God's law written on his heart.

All Humans Become Sinners

We have followed the course of Adam's sin as it is given in Genesis. Some four thousand years later, Paul picks up the account of Adam's sin and relates it to the sins of all humankind (Rom. 5:12-21). The reason for this delay in the scriptural account of Adam's sin is that the implications of Adam's sin could not be understood before the occurrence of Christ's death on the cross. For, just as the effects of Christ's death and resurrection were imputed to many, so the effects of Adam's sin were imputed to many. It is only from this comparison of Adam to Christ, that we can understand how Adam's sin was imputed to all humankind.

Adam, a Pattern of Christ (Rom. 5:14). The key to the comparison of Adam to Christ is that Adam is a pattern for Christ. An example of a pattern is the mold used to form the shape of an iron casting. The liquid iron is poured into the mold and, after cooling, the hardened iron casting is obtained. The shape of the resulting casting is related directly to the shape of the mold except that the shapes are the inverse of each other. Where the casting has a bulge, the mold has an indentation.

Paul uses this relationship between the mold and the casting in his comparison of Adam to Christ. For example, in Rom. 5:19, Paul compares the disobedience of Adam (the mold) to the obedience of Christ (the casting) and asserts that through Adam the many were made sinners (the mold) and through Christ the many will be made righteous (the casting). The assertions about Adam are just the inverse of the assertions about Christ: Adam disobeys, Christ obeys; Adam produces sin, Christ produces righteousness.

Paul uses this casting-mold relationship to explain the imputation of Adam's sin to all humankind. Since Scripture reveals more about Christ than about Adam, we begin our comparison between the two by considering first the "Case of Christ."

The Case of Christ (the casting). Christ obeyed God to make humans righteous (Rom. 5:19). Christ's obedience had two components: his death and his resurrection.¹⁹ Through Christ's death, humans were justified (Rom. 3:24). They were made righteous in God's sight though their sinful nature was not changed.²⁰

Through Christ's resurrection, humans were given a new life and became slaves to righteousness (Rom. 6:18). God applied this new life to humans by "writing his laws upon their hearts" (Heb. 8:10) and "by giving them the Holy Spirit to teach them all things" (John 14:26). Thus believing Christians have, not only the laws of God written on their hearts, but also the Holy Spirit as a constant guide for applying these laws to their lives.

The Case of Adam (the mold). Rather than obeying God, Adam disobeyed God to make humans sinners (Rom. 5:19). Christ's obedience had two components: leading humans (1) to be declared righteous and (2) to become slaves to righteousness. Applying the mold-casting relationship between Adam and Christ, we conclude that Adam's disobedience led to the two inverse results: humans (1) being declared sinners and (2) becoming slaves to sin.

Adam's disobedience of a direct command of God, not to eat of the tree, led God to declare all humans to be sinners. Just as, across space and time, Christ's act of obedience made Abraham righteous,²¹ so did Adam's act of disobedience make the prehistoric American Indians and the Australian aborigines sinners. And just as there was no biological connection between Christ and those he "made righteous," there was also no biological connection between Adam and those he "made sinners." This universal sin, credited to all humankind by God, is Original Sin. The presence of this sin in infants, who themselves have not sinned, explains the practice of infant baptism, a symbol of the removal of the Original Sin and its consequent punishment by eternal damnation.

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The second component of Adam's disobedience led humans to become "slaves to sin" (Rom. 6:17). The Original Sin of the preceding paragraph does not change people's actions. Yet a person's sinful actions are apparent to all, leading Reinhold Niebuhr to say: "The doctrine of Original Sin is the only empirically verifiable doctrine of the Christian faith."²² However, it is humankind's slavery to sin that is empirically verifiable, not the Original Sin that is restricted to the judgment of God.

When Adam disobeyed God and ate of the tree of the knowledge of good and evil, this knowledge of good and evil (God's law) was written on his heart. This law then condemned Adam's natural evolutionary desires and made Adam a slave to sin. Since Adam's disobedience makes all humans sinners (Rom. 5:19), all humankind become slaves to sin through having the law of God written on their hearts as Rom. 2:15 confirms.

Problems Solved with Adam as an Evolutionary Man

The traditional understanding of the creation of Adam is given, for example, in the *Westminster Confession of Faith* of the Presbyterian Church:

After God had made all other creatures, he created man, male and female, with reasonable and immortal souls, endued with knowledge, righteousness, and true holiness after his own image, having the law of God written in their hearts, and power to fulfill it; and yet under a possibility of transgressing, being left to the liberty of their own will, which was subject to change.²³

In this traditional description of humankind's creation, a human is created as righteous and without a history. Hardly a greater contrast could be found than the Adam presented in this article: a prehistoric man with an undisciplined evolutionary nature. I now demonstrate that the evolutionary Adam is more closely identified with Scripture than the traditional Adam of the *Westminster Confession*.

How Adam could sin. The disobedience of Adam in the Garden of Eden has been an enigma throughout the history of the church. Because Gen. 1:26 states that "man was made in the image of God," the *Westminster Confession* asserts that Adam was created with "true holiness," yet "under a possibility of transgressing." The problem is how Adam could have true holiness and yet transgress.

Calvin addresses this problem in his *Institutes of the Christian Religion*:

Nor was it reasonable for God to be constrained by the necessity of making a man who either could not or would not sin at all. Such a nature would, indeed, have been more excellent. But to quarrel with God on this precise point, as if he ought to have conferred this upon man is more than iniquitous, inasmuch as it was in his own choice to give whatever he pleased.²⁴

Calvin admits that God could have made Adam more excellent; however, we should not question God that he did not do so.

The recognition of the evolutionary inheritance of Adam removes this difficulty. The realization that Adam and Eve were simply creatures following their evolutionary instincts explains why they sinned in the Garden. They were not "holy, yet under a possibility of transgressing."

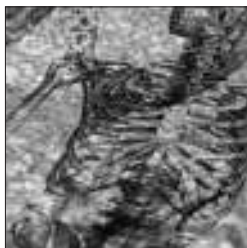
Adam's sin had two components: his disobedience of a direct command of God and his acquisition of the knowledge of good and evil. The first component led to the Original Sin for all humankind, the second to all humans becoming slaves to sin.

The clarification of Adam's sin. It was shown above that Adam's sin had two components: his disobedience of a direct command of God and his acquisition of the knowledge of good and evil. The first component led to the Original Sin for all humankind, the second to all humans becoming slaves to sin. As a result of the Original Sin, humans are declared to be sinners by God, and are liable to God's punishment. Because of their slavery to sin, humans lead "the empirically verifiable" sinful lives noted by Reinhold Niebuhr.²⁵

These two components of Adam's disobedience (the mold) correspond to the two components of Christ's obedience (the casting). Because of Christ's death, humans are declared to be righteous by God; because of his resurrection, humans become slaves to righteousness.

However, these two components of Adam's disobedience are not recognized by the traditional account of Adam's sin. The *Westminster Confession of Faith*, e.g., says only: "men fell from their original righteousness and communion with God, and so became dead in sin."²⁶ The writers of the *Confession* could not know that, because of his evolutionary nature, Adam would become a slave to sin when he ate of the tree of the knowledge of good and evil.

Humankind's "Flesh." An important theme in Scripture is the struggle between man's evolutionary nature and his knowledge of good and evil. For example, Paul writes: "I know that nothing good lives in me, that is, in my flesh."²⁷ For I have the desire to do what is good, but I cannot carry it out" (Rom. 7:18).



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From his own experience, Paul recognizes that he has a nature at enmity with God's law; Paul calls this feature of his nature, the "flesh." Traditionally, the origin of the "flesh" has been traced back to Adam's sin: "men fell from their original righteousness and communion with God, and so became dead in sin."²⁸ Yet, according to Scripture, Adam is punished for his sin against God in the Garden of Eden through the frustration of his labor. There is no indication in the scriptural record of the Garden of Eden that Adam's nature is changed from "true holiness with the possibility of transgressing" to the "flesh."

How different is the situation if humans have an evolutionary inheritance. Paul's "flesh" is inherited from his evolutionary parents while Paul's desire "to do what is good" is acquired from Adam's eating from the tree of the knowledge of good and evil. The scientific discovery of evolutionary humans thus clarifies, but does not change, the scriptural account of the struggle with the "flesh."

The Biological Connection to Adam. Over the course of the centuries, two scriptural verses, Acts 17:26 and Psalm 51:5, have been used to support the Augustinian biological connection between all humankind and Adam. I show here that these verses can be interpreted to accommodate evolutionary humans not related biologically to Adam.

"From one man he made every nation of men, that they should inhabit the whole earth" (Acts 17:26). Here, we have reference to evolutionary humans becoming true humans when they acquired their consciences (the knowledge of good and evil) through Adam's sin. This knowledge of good and evil was imputed to all humankind through the disobedience of the one man Adam (Rom. 5:19). Until Adam had eaten of the tree of the knowledge of good and evil, evolutionary humans were simply clever animals without sin.

"Surely I have been a sinner from birth, sinful from the time my mother conceived me" (Ps. 51:5). Here, David is referring to the Original Sin imputed to all humans because of Adam's disobedience to a direct command from God (see "The Case of Adam (the mold)," p. 154). As Rom. 5:19 says: "through the disobedience of one man, the many were made sinners." There is no hint of any biolog-

ical connection between Adam's disobedience and sinful humans.

Analysis of Adam as an Evolutionary Man

The scriptural account of Adam and Eve has been interpreted with the assumption that humans have an evolutionary nature. Adam is a man selected by God from among the *Homo sapiens* just as Abraham was selected from among the Chaldeans. Adam's evolutionary nature led to his disobedience in Eden. And, Adam's disobedience made all humans sinners (Rom. 5:19) in two respects.

First, Adam's disobedience of God's command led to all humans being declared to be sinners. This is the Original Sin suffered by all of humankind. Second, Adam's acquisition of the knowledge of good and evil put God's law on all humans' hearts. This law condemned humankind's natural evolutionary actions so that all humans became "slaves to sin."

Summary

Two issues have been discussed. In "Adam's Place in History," we learn that the assumption that Adam is the ancestor of all humans is unscriptural. By rejecting this assumption, Adam can be located in history at the scriptural date of 4000 BC while the creation of the earth and the heavens occurs at the scientific date of 15 billion BC.

In "Adam as an Evolutionary Man," the sin of Adam in the Garden of Eden is interpreted while recognizing humankind's evolutionary inheritance. This recognition clarifies and enriches the scriptural account of the origin of humankind's sin. In particular, it clarifies the two-fold nature of Adam's sin: the Original Sin of disobedience to a commandment of God and the slavery to sin through the acquisition of the knowledge of good and evil. *

Notes

¹Henricus Renckens, S.J., *Israel's Concept of the Beginning* (New York: Herder and Herder, 1964), 36.

²This paper was presented at the 2001 Conference of the American Scientific Affiliation, July 20-23.

³The New International Version of the Bible (NIV) has been used for the Scripture references.

⁴*New Columbia Encyclopedia*, s.v. "Bronze Age."

⁵St. Augustine, "The City of God," in *Great Books of the Western World* 18 (Chicago: Encyclopaedia Britannica, 1952), Book XIII, chap. 14.

Paul's "flesh" is inherited from his evolutionary parents while Paul's desire "to do what is good" is acquired from Adam's eating from the tree of the knowledge of good and evil. The scientific discovery of evolutionary humans thus clarifies, but does not change, the scriptural account of the struggle with the "flesh."

- ⁶See e.g., *The Cambridge Encyclopedia of Human Evolution*, 400.
⁷Jerry D. Korschmeier, *Evolution and Eden* 43, no. 3 (New York: Paulist, 1998).
⁸Renckens, *Israel's Concept of the Beginning*.
⁹*Westminster Confession of Faith* (Richmond: Board of Education, 1969), chap. VI.3.
¹⁰Henri Blocher, *Original Sin* (Grand Rapids, MI: Eerdmans, 1997), 42.
¹¹Allan J. Day, "Adam, Anthropology and the Genesis Record," *Science and Christian Belief* 10 (1998): 115-43; Glenn R. Morton, "Dating Adam," *Perspectives on Science and Christian Faith* 51 (87-97): 1999; and David L. Wilcox, "Adam, Where Are You?" *Perspectives on Science and Christian Faith* 48 (1996): 88-96.
¹²As a Roman Catholic, Renckens (see note 1) is committed to the Augustinian explanation of Original Sin as formulated by the Council of Trent. This explanation assumes that Adam is the biological ancestor of all humankind. As Renckens concludes, this explanation contradicts the biblical date for Adam. However, many Protestant theologians, even in the nineteenth century, considered Adam to be the representative of all humans for Original Sin, not the biological source of Original Sin (see Charles Hodge, *Commentary on the Epistle to the Romans* [Grand Rapids, MI: Eerdmans, 1950]). For these theologians, Adam would not be required to be the ancestor of prehistoric humans and Adam could live in 4000 BC. However, Protestants appear still to believe that Adam was the biological ancestor of all humans. Consequently today, because of the presence of prehistoric humans, many Christians consider the story of Adam and Eve to be a myth (see e.g., R. J. Berry, "This Cursed Earth: Is 'the Fall' Credible?" *Science and Christian Belief* 11 (1999): 29-49, note 6).
¹³St. Augustine, *The Literal Meaning of Genesis* (New York: Newman, 1982), book 10, note 85.
¹⁴Renckens, *Israel's Concept of the Beginning*.
¹⁵St. Augustine, "The City of God," in *Great Books of the Western World* 18 (Chicago: Encyclopedia Britannica, 1952), Book XII, chap. 16.
¹⁶John Calvin, *Commentaries on the Book of Genesis* (Grand Rapids, MI: Eerdmans), chap. 2, v. 7.
¹⁷Berry has also made a somewhat similar suggestion, "This Cursed Earth," 39.
¹⁸See e.g., Charles Hodge, *Commentary on the Epistle to the Romans*, chap. 5, v. 12, fourth class of interpreters.
¹⁹John Murray has considered the two effects of Christ's death and resurrection in *The Imputation of Adam's Sin* (Grand Rapids, MI: Eerdmans, 1959), 39 and 89.
²⁰See e.g., Charles Hodge, *Commentary on the Epistle to the Romans*, chap. 3, v. 20.
²¹Charles Hodge, *Systematic Theology* (Grand Rapids, MI: Eerdmans, Photolithographed), Part III, chap II, 6.
²²Quotation from Henri Blocher, *Original Sin* (Grand Rapids, MI: Eerdmans, 1997), 84.
²³*Westminster Confession of Faith*, chap. IV.2.
²⁴John Calvin, *Institutes of the Christian Religion*, John T. McNeill, ed. (Philadelphia, Westminster, 1960), Book I, chap XV.8.
²⁵Henri Blocher, *Original Sin*.
²⁶*Westminster Confession of Faith*, chap. VI.2.
²⁷We use "flesh" from the RSV instead of "sinful nature" from the NIV because we are claiming that the evolutionary nature is not sinful in itself.
²⁸*Westminster Confession of Faith*, chap. IV.2.

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