

St. Augustine and the Inerrancy of Scripture

The Book of Genesis is one of the more difficult books in the Bible to interpret, but fortunately the Church has provided us with many excellent guides, among whom St. Augustine in his *The Literal Meaning of Genesis*, is among the best. St. Augustine begins his study of Genesis by laying down the following excellent principle:

“If anyone wishes to interpret in a literal sense everything written in this book, that is to understand it only according to the letter of the text, and in doing this he avoids blasphemy and explains everything in agreement with the Catholic faith, not only is he not to be discouraged, but he should be considered an outstanding interpreter worthy of great praise. But if there is no way of understanding a passage in a devout sense worthy of God without assuming that it has been set forth in figures and enigmas, we should remember that we have the authority of the apostles, who solved so many enigmas in the books of the Old Testament, and we should stay with the kind of interpretation which we have adopted with the help of Him who bids us ask, seek and knock. Thus, our purpose should be to explain all these figures of things according to the Catholic faith, whether the matter belongs to history or prophecy, without prejudice to a better and more exact treatment which we or others, whom the Lord is pleased to enlighten may subsequently undertake.”¹

As St. Augustine began his commentary on *The Literal Meaning of Genesis*, almost immediately he felt constrained to put this principle into practice. The first chapter of Genesis deals with the six days of creation, and we read that on the third day God created the plants (1:11-13). But in the second chapter which briefly recapitulates the first, and then concentrates on Adam and Eve, we read: "These are the generations of the heaven and the earth, when they were created, in the day that the Lord made the heaven and the earth: and every plant of the field before it sprung up in the earth, and every herb of the ground before it grew (2:4,5)." One text is saying that the plants were created on the third day, and the other seems to be saying that they were created on the first, the same day the Lord made the heaven and the earth. So rather than allow an unbeliever to claim that one text must be in error, St. Augustine interpreted the first chapter in the figurative, but the second in the literal sense:

“The first day created knew the whole array of creatures arranged in hierarchical order. Through this knowledge creation was revealed to it as if in six steps called days, and thus was unfolded all that was created; but in reality there was only one day. That day knew creation first in the Creator and then in the creatures themselves. Yet it remained not in them, but directing this latter knowledge to the love of God, it brought about in all the works of creation an evening and a morning, and a midday, not involving any intervals of time but rather an order in creation. Finally, made aware of the repose of its Creator, who rested from all his works in rest that has no evening, the day thereby deserved to be blessed and sanctified. Scripture, therefore as the Church has recognized, extols the number seven and presents it as consecrated

to the Holy Spirit...

“This is my explanation, unless someone can propose an interpretation that is clearer and more in keeping with the text.”²

I am sure that St. Augustine would be the first to agree that St. Thomas Aquinas in his *The Work of the Six Days* (another excellent guide), proposed a clearer explanation of this difficulty, and one "more in keeping with the text." St. Thomas asks:

“Whether All These Days Are One Day?”

“Objection 1. It would seem that all these days are one day. For it is written (Gen. 2:4,5): "These are the generations of the heaven and the earth, when they were created, in the day the Lord...made the heaven and the earth, and every plant of the field," is one and the same day. But He made the heaven and the earth on the first day, or rather before there was any day, but the plant of the field He made on the third day. Therefore the first and the third days are but one day, and for a like reason all the rest...

“On the contrary, It is written (Gen. 1), The evening and the morning were the second day, the third day and so on. But where there is second and third there are more than one. There was not therefore, only one day...

“Reply Objection 1. On the day on which God created the heaven and the earth, He created also every plant of the field, not, indeed actually, but ‘before it sprung up in the earth,’ that is, potentially.”³

St. Augustine is almost unique among the Fathers in interpreting the six days of creation in a figurative sense. Most of them, like St. Thomas, interpret "day" in the literal sense of 24 hours. But all the Fathers treat St. Augustine's opinion with great respect, implying that they did not believe that the inerrancy of Scripture was involved in not affirming a 24 hour day. This was made explicit by the Pontifical Biblical Commission in 1909 which spelled out in detail just what must be taken in the strictly literal sense in the first three chapters of Genesis:

“Historical Character of Certain Parts - Whether, in particular, we may call in question the literal historical meaning where there is question of facts narrated in these chapters which touch the fundamental teachings of the Christian religion, as for example, the creation of all things which was accomplished by God at the beginning of time, the special creation of man, the unity of the human race, the original happiness of our first parents in a state of justice, integrity and immortality, the divine command laid upon man to prove his obedience, the transgression of that command at the instigation of the devil under the form of a serpent, the fall of our first parents from their primitive state of innocence, and the promise of a future Redeemer.

“Answer: In the negative.”⁴

Notice that a 24 hour day of creation is not considered as touching the "fundamental teachings of the

Christian religion." The Biblical Commission then dealt directly with the word "day" (*Yom*) as used in the Hexameron:

“*Yom*. Whether the word *Yom* (day), which is used in the first chapter of Genesis to describe and distinguish the six days, may be taken in its strict sense as the natural day, or in a less strict sense as signifying a certain space of time; and whether free discussion of this question is permitted to interpreters.

“*Answer*: In the affirmative.”⁵

This decision allows us to follow St. Augustine's figurative interpretation of the Hexameron, or St. Thomas's literal, but also encourages a concordist interpretation of the "six Days," that is, to attempt to harmonize the Hexameron with the theories of contemporary science. St. Thomas in his *The Work of the Six Days* had successfully harmonized the Hexameron with Aristotelian science and Ptolemaic astronomy, and this tradition continues today among Christian scholars.

In 1952 Pope Pius XII delivered an address to the Pontifical Academy of Science entitled *The Proofs of the Existence of God in the Light of Modern Natural Science* in which he attempted to harmonize the first day of creation, "Let there be light," with the so called "Big Bang" or Expanding Universe Theory:

“One cannot deny that a mind which is enlightened and enriched by modern scientific knowledge and which calmly considers the problem, is led to break the circle of matter which is totally independent and autonomous - as being either uncreated or having created itself - and rise to a creating Mind. With the same clear and critical gaze with which it examines and judges facts, it discerns and recognizes there the work of creative Omnipotence, whose strength raised up by the powerful fiat uttered billions of years ago by the creating Mind, has spread through the universe, calling into existence, in a gesture of generous love, matter teeming with energy. It seems truly that modern science, leaping back over millions of centuries, has given witness to that primordial Fiat lux, when out of nothing erupted matter and a sea of light and radiations until the particles of the chemical elements formed and clustered into millions of galaxies.”⁶

The Holy Father, of course, is not endorsing the Expanding Universe Theory or the fantastic age of the universe built into it. He is merely showing how a reasonable scientific theory, and I see no harm in granting that to this theory, should lead an unbelieving scientist of good will to God. The "Big Bang" is far from being a proven fact, and the Holy Father makes several qualifications during the course of his allocution:

“It is very true that as far as creation in time, the facts so far do not constitute an absolute proof concerning simple creation, as are those reached from both metaphysics and from revelation. The facts pertaining to natural science to which We have referred, are still in need of further research and confirmation and the theories built on them are in need of new proofs and development, in order to offer a secure base for argumentation which by itself stands outside the realm of the natural sciences.”⁷

The theories of science concerning the origin of the universe and the origin of man, cannot of course be compared to the certitude concerning these matters we have received from Divine Revelation, or even the natural knowledge we receive from philosophy, which examines all these matters in terms of their final causes. Nor is Pope Pius in this concordist interpretation rejecting a literal interpretation of a 24 hour day. Fr. Peter Fehlner in his excellent *In the Beginning* comments on this particular point:

“In the above address Pius XII mentions the age of the world in terms of milliards of years. The question of the age of the world was, however, merely incidental to the theme he was discussing, and in no way constitutes magisterial resolution of the question bearing on the age of the world or of the meaning of ‘day’ in the Genesis account of the work of God, anymore than St. Augustine's views on this point have represented more than a personal opinion.

“Clearly two questions must be distinguished:

“1) How much does Revelation tell us about the subjects investigated by science?
2) How much can scientific investigation tell us about the subjects and facts contained in Revelation, in particular about the origin of the cosmos and of the species. To each question the Pope's reply is quite traditional. To the first question he states relatively little, but the seeming little is more important than all the rest. To the second he replies perhaps something on some points, but on certain matters like the origin of the cosmos, he replies nothing at all, except in dependence on Revelation.”⁸

Hugh Ross, a Protestant minister who is also an astronomer and an astrophysicist, has recently published a book entitled *The Fingerprint of God*, which attempts to harmonize current scientific theories and the biblical doctrine of creation *ex nihilo*. Ross claims he has had great success in preaching to agnostics and sceptics on college campuses, and in lecturing to atheistic scientists and academics in Russia on the theme (the subtitle of his book): *Recent Scientific Discoveries Reveal the Unmistakable Identity of the Creator*. The greatest weakness of this book, I think, is its heavy-handedness. There are none of the qualifications or reservations proposed by Pius XII in his allocution. For example here is Ross speaking of the "anthropic principle," the notion that "everything about the universe tends toward man, toward making life possible and sustaining it":

“The age of the universe governs what kind of stars exist. It took about 2 billion years for the first stars to form. It took another 10 to 12 billion years for the supernovas to spew out enough elements to make possible stars like our sun, stars capable of spawning rocky planets. Yet another few billion years was necessary for solar-type stars to stabilize sufficiently to support advanced life on any planet. Hence, if the universe were just a couple of billion years younger, no environment suitable for life would exist. However if the universe were 10 (or more) billion years older than it is, there would be no solar-type stars in a stable burning phase in the right part of the galaxy. In other words, the window of time during which life is possible in the universe is relatively narrow.”⁹

You would think that Ross was dealing with observed and proven facts rather than with mere scientific hypotheses. Pius XII, if you remember, said that proofs from natural science, cannot be held with

the same certitude as those reached from philosophy, and of course from revelation. If a "scientific" theory is absurd philosophically, such as the popular humanist theory that the universe created itself out of nothing, the Holy Father dismissed it as not worthy of discussion. "...a mind which is enlightened and enriched by modern scientific knowledge...is led to break the circle of matter which is totally autonomous - as being uncreated or having created itself - and rise to a creating Mind." Not so Hugh Ross:

"One of the most elegant vacuum fluctuation models was published in 1984 when Stephen Hawking teamed up with the American physicist James Hartle. They say that just as a hydrogen atom can be described by a quantum mechanical wave function, so can the universe be described. By such means they show that the singularity disappears, and yet the entire universe still pops into existence at the beginning of time. As Pagels puts it:

"This unthinkable void converts itself into a plenum of existence - a necessary consequence of physical laws. Where are these laws written in that void? What "tells" the void that it is pregnant with a possible universe? It would seem that even the void is subject to law, a logic that exists prior to space and time.'

"Once again, the biblical doctrine of creation is deduced." ¹⁰

This is not the biblical doctrine of creation, which is inseparable from a Creator God, nor is it science, but some form of atheistic religious humanism. True science has to be reasonable, and I think it better just to dismiss theories like these as unreasonable, pathological might be a better word, rather than honoring them by discussion. St. Augustine says:

"Hence it is more toilsome to discover material creatures than the Creator who made them, since the joy a devout mind finds in the slightest knowledge of God is incomparably greater than anything it could experience in a thorough understanding of all natural beings. For this reason those who search into this world are rightly rebuked in the Book of Wisdom: For if their knowledge was so great that they could make judgments about the world, how did they not more readily find its Lord. For the foundations of the earth are beyond the range of our eyes, but He who founded it is near our minds." ¹¹

Ross reserves his harshest criticism for his fellow Protestant creationists who insist on a literal interpretation of 24 hour days for the six days of creation, and following biblical chronologies, arrive at a universe under 10,000 years of age. These literalists say that when God formed the earth, it indeed had the appearance of age, but was in fact young. Ross writes:

"Taken to its logical conclusion the appearance of age theory would imply that we could not establish that our past existence actually occurred. For example, we could have been created just a few hours ago with the Creator implanting memory, material possessions, scars, and hardening of the arteries to make us appear and feel older than we really are. As such, we could not be held responsible for any of our 'past' actions." ¹²

Ross's criticism of the "apparent age" of the world is what is known in logic as an *ignoratio elenchi*, or missing the point. True creation is an instantaneous action proper to God alone. Father Fehlner comments on this argument:

“The importance of this distinction can be illustrated with the popular objection to the creation of the heavenly bodies in a single day of 24 hours. It is claimed in the objection that the formation of these bodies would have postulated a duration of enormous length since such is the time required for light from these bodies to reach the earth at present, and that light was observed by the first man on his appearance (according to Genesis). The objection, however, begs the question. It assumes as certain what the proponents of evolutionary theory should prove, the processes now observed in the transmission of light from the heavenly bodies to earth - and the duration needed to traverse the distance between them - are the same by which they were made to shine initially. Where the Creator is the principal Cause, there is no reason why He cannot do all this without the aid of natural processes and with or without the duration pleasing Him and appropriate to His ends (24 Hours as Genesis tells us).”¹³

Let me go on now to a brief examination of probably the most famous confrontation between science and the inerrancy of Scripture, the Galileo Case. In the Ptolemaic or geocentric system, the earth was immobile at the center of the universe, and the sun, moon, planets and stars all revolved around it. This seemed to be confirmed by many passages of Scripture. For example: "Let all the earth be moved at his presence: for he hath founded the world immovable" (1 Par. 16:30), and "the Lord hath girded himself. For he hath established the world which shall not be moved" (Psalm 92:1). When Galileo championed Copernicus's heliocentric system, namely that the sun is at the center of the universe with the earth and the other planets revolving around it, the stars remaining fixed, the earth also turning daily on its axis, many Christians thought the theory was a challenge to the inerrancy of certain passages of Scripture. Here are Father Fehlner's comments on the Galileo Case:

“The astronomical theories of Galileo touched points also mentioned in Scripture. His views propounded as proven fact, would seem to render Scriptural references to the earth either false or meaningless: the decision to place the works of Galileo on the Index of Forbidden Books, and to forbid him to publish anything more on the subject, was not a condemnation of scientific theorizing as such: it was an insistence that his particular theory be held as a hypothesis, until such time as the Church should have resolved the exegetical questions; to publicize the same in circumstances where it might easily be taken as proven fact by the unformed would act to the detriment of their faith. One might discuss whether this was the best manner to handle the pastoral problem; but it hardly constitutes intellectual tyranny. And just as Galileo's celestial mechanics was not condemned, neither was Aristotle's canonized. The immediate concern of the Church was not the justification of astronomical theory, but the guardianship of the deposit of faith and its correct interpretation. Revelation does contain references to what seems to be the immobility of the earth. The Fathers of the Church, as St. Robert noted, also seem to attest to this as a fact. If the heliocentric theory is true, then, as St. Robert observed, our understanding of these passages must be re-examined to discover the faulty interpretation, but it is not permissible in the mean time to say God has stated something false or engaged in pious deception. If the theory is merely possible, this is not a sufficient basis as yet for doubting the literal sense of Scripture attested by the Fathers. In passing it may be remarked

that there are even now serious scholars who are willing to make a case for a geocentric theory.”¹⁴

Today most Christians, including Protestant and Catholic creationists, concede that the inerrancy of Scripture was not involved in the geocentric model of the universe, and that the passages of Scripture involved were not intended to be taken in the strictly literal sense. However there are a few Protestant and Catholic creationists who still insist on a geocentric universe, and claim that these passages must be understood literally. One such group of Protestant creationists call themselves the "Tychonian Society," and their title calls for a little explanation. Galileo with his new telescope was the first to observe that the planet Venus has phases like the moon, which means it would have to be directly behind the sun in its full phase. But in the Ptolemaic system, Venus is always in front of the sun. This finished the Ptolemaic system, and Galileo was sure that he had discovered a convincing proof of Copernicanism.

But another famous astronomer, Tycho Brahe, because he could not obtain a parallax on the fixed stars, refused to concede. Brahe had measured the angle a star made with the earth, and then six months later when the earth was supposedly on the other side of its orbit around the sun, he measured it again. The angle was the same! This meant that either the stars were much further from the earth than had ever been thought, or that the earth was not moving. Brahe decided that the latter was the case, and proposed his own compromise system. The earth still remains immovable at the center of the universe with the sun going around it as in the Ptolemaic system, but the inner planets, Mercury (it was later discovered that Mercury also had phases) and Venus going around the sun as in the Copernican system. All the other planets and the stars revolve around an immovable earth as in the Ptolemaic system. This compromise model allowed Brahe to account for the phases of Venus, and still keep the earth at the center of the universe.

Stellar parallax can only be detected with a good telescope, and it was not until 1838 that Friedrich Bessel detected an almost infinitesimal parallax in the star 61 Cygni. Since then the parallax of about a thousand stars has been determined, but most are too distant to be measured by this method. The group of Protestant creationists who call themselves the Tychonian Society, subscribe to what they call an "updated" Tychonian system. All the planets now, and all the stars go around the sun, and the whole system revolves around an immobile earth. I am not opposed to a geocentric universe in principle, and the only thing I like about the Big Bang is that it can be harmonized so easily with the first day of creation, but I personally doubt that this particular geocentric model is correct. It is lopsided, and there is nothing else like it in nature, either in the macro or micro universe. Galileo had discovered the moons of Jupiter which was like a miniature solar system, and this has been expanded by the various space probes to include all the planets. Also the Rutherford model is still the simplest description of the subatomic world with the protons in the center like the sun, and the electrons in orbit around it. In the updated Tychonian model it would be as if Jupiter circled by eleven of its moons, were all revolving around its moon Io.

This updated Tychonian model seems to me to violate what is known in nature as the "beauty principle." Here again is Hugh Ross:

“The beauty principle is the presupposition that the correct description of nature is that which manifests the greatest degree of simplicity, beauty, elegance, and consistency. So far this principle has been

an unerring guide to new insights in theoretical physics. It is also a statement about who and what created the universe.”¹⁵

Let me summarize briefly two papers presented at a creationist conference in Germany by Walter Van Der Kamp. Van Der Kamp presents a three part argument for a geocentric universe: 1) from the Michelson -Morley experiment of 1887 which was unable to detect that the earth was moving through space ;¹⁶ 2) from Einstein's Special Theory of Relativity which followed in 1905 and which said in part: "there is no absolute reference system from which absolute motions in space can be measured;"¹⁷ and 3) the Gödel incompleteness theorem which states; "with incomplete information about a system one cannot prove a necessarily true theorem (i.e. a one and only description) about that system."¹⁸ Van Der Kamp concludes from these arguments with the words of the Lutheran theologian Andrew Ossiander (1498-1552) who wrote the Introduction to Copernicus's book *De Revolutionibus*:

“These hypotheses need not be true or even probable: if they provide a calculus consistent with the observations, that alone is sufficient...The astronomer will accept above all others the one which is the easiest to grasp. The philosopher will perhaps seek the semblance of truth. But neither will understand or state anything certain unless it has been divinely revealed to them.”¹⁹

If carried to its logical conclusion this principle of Ossiander would not only be the end of science, but of philosophy as well, and the only source of truth would be the Bible. This is *sola Scriptura* carried to a *reductio ad absurdum*. Van Der Kamp, then following Ossiander's principle, goes to revelation, to the Bible, and the passages we have read, and concludes that the earth is indeed immobile, neither moving through space nor rotating on its axis, and is at the center of the universe.

Here is Van Der Kamp's summary of the "updated" Tychonian model of the universe:

“In reality, and even on a sublunar level demonstrable, the Heavens revolve from East to West. The starry dome very slowly - the precession of the equinoxes! - revolves around the Sun, and with the Sun around the earth. The misleadingly so-called aberration circlets are real, and simple three-dimensional ‘skinny triangle’ trigonometry [stellar parallax] shows that the vast majority of the stars are arranged and settled in a spherical shell with a radius of about sixty light days, barring the observable created Heaven from the, for our level of being, nothingness outside it.”²⁰

Let me just point out one sentence in this paper. "The misleadingly so-called aberration circlets are real." Stellar parallax has been determined for about a thousand of the nearby stars which appear to be doing what is called "aberration circlets." If we observe these stars every night for a year, they appear to have made a little circle in the night sky, similar to the "apparent retrograde motion" of the planets. But Van Der Kamp claims that these circlets are real. In other words a thousand or so of the nearby stars as they circle the earth, are sort of looping the loop as did the planets in the old Ptolemaic system. There is no physics for this - a pitcher cannot throw a baseball in such a way that it loops the loop - it would have to be done by way of miracle!

Notice Van der Kamp's methodology. First he argued that because of Einstein's Theory of Relativity, we couldn't tell by stellar parallax if the earth was moving or if the aberration circlets were real. But since we knew from Scripture, by divine revelation, that the earth was not moving, it meant that the aberration circlets were indeed real. And if the physics of it didn't work, God must be doing it by way of miracle.

This theory not only involves some bad science but also some bad philosophy, namely the philosophical error called "occasionalism," held most notably by P re Malebranche, a disciple of Descartes. In this system secondary causes are only the "occasions" of the workings of the primary cause, God. The whole universe then becomes just a machine, and God the "Ghost in the machine." The system of Malebranche was condemned by Rome.

But in order not to be too hard on Ossianer and Van Der Kamp I should mention that this argument is remarkably similar to one that Pope Urban insisted that Galileo include in his famous *Dialogue*, namely that neither the Ptolemaic nor the Copernican system could be absolutely true, because the option had to be left open for God to run the world by miracle if He so chose. Let me read just a few lines from the *Dialogue*; The defender of the Ptolemaic system, Simplicius, is speaking:

“I am really not entirely convinced; but from such feeble ideas of the matter as I have formed, I admit your thoughts seem to me more ingenious than many others I have heard. I do not therefore consider them true and conclusive; indeed, keeping always before my mind's eye a most solid doctrine that I once heard from a most eminent and learned person, and before which one must fall silent [Urban], I know that if asked whether God in His infinite wisdom could have conferred upon the watery element its observed reciprocating motion using some other means than moving its containing vessels, both of you would reply that He would have known how to do this in many ways which are unthinkable to our minds. From this I forthwith conclude that, this being so, it would be excessive boldness for anyone to limit and restrict the Divine power and wisdom to some particular fancy of his own.”²¹

Galileo thought that the movement of the earth through space caused the oceans in their basins to move back and forth in the action we call the tides. This is just bad physics, but of course it could be done by way of miracle. With all due respect to Pope Urban, St. Augustine would not like this notion that we can never reach conclusive truths in science, because we have to leave the option open for God to run the world by miracle, if He so chose. Speaking about the second day of creation and the "waters above the heavens," he writes:

“Many hold that the waters mentioned in this place cannot be above the starry heaven, maintaining that they would be compelled by their weight to flow down upon the earth or would move in a vaporous state in the air near the earth. No one should argue against this theory by appealing to the power of God, to Whom all is possible, and saying that all ought to believe that water, even though it had the same weight as the we know by experience, was poured forth over the region of the heavens in which the stars are set. For now it our business to seek in the account of Holy Scripture how God made the universe, not what He might produce in nature or from nature by His miraculous power. If God ever wished oil to remain under

water, it would do so, but we should not thereby be ignorant of the nature of oil: we should still know that it is so constituted as to tend towards its proper place, and even when poured under water, to make its way up and settle on the surface. Now we are seeking to know whether the Creator, who has ordered all things in measure, and number and weight, has assigned to the mass of waters not just one proper place around the earth, but another also above the heavens, a region which been spread around and established beyond the limits of the air.”²²

I think speculation about the possibility of a geocentric universe is a strictly legitimate scientific endeavor, but to claim that a shaky scientific hypothesis like the updated Tychonian model, is proven by Holy Scripture is to fall under St. Augustine's grave warning:

“Usually, even a non-Christian knows something about the earth, the heavens, and the other elements of this world, about the motion and orbit of the stars and even their size and relative positions, about the predictable eclipses of the sun and moon, the cycles of the years and seasons, about the kinds of animals, shrubs, stones, and so forth, and this knowledge he holds to as being certain from reason and experience. Now, it is a disgraceful and dangerous thing for an infidel to hear a Christian, presumably giving the meaning of Holy Scripture, talking nonsense on these topics; and we should take all means to prevent such an embarrassing situation, in which people show up vast ignorance in a Christian and laugh it to scorn. The shame is not so much that an ignorant individual is derided, but that people outside the household of the faith think our sacred writers held such opinions, and, to the great loss of those for whose salvation we toil, the writers of our Scripture are criticized and rejected as unlearned men. If they find a Christian mistaken in a field which they themselves know well and hear him maintaining his foolish opinions about our books, how are they going to believe those books in matters concerning the resurrection of the dead, the hope of eternal life, and the kingdom of heaven, when they think their pages are full of falsehoods on facts which they themselves have learnt from experience and the light of reason? Reckless and incompetent expounders of Holy Scripture bring untold trouble and sorrow on their wiser brethren when they are caught in one of their mischievous false opinions and are taken to task by those who are not bound by the authority of our sacred books. For them, to defend their utterly foolish and obviously untrue statements they will try to call upon Holy Scripture for proof and even recite from memory many passages which they think support their position, although they understand neither what they say nor the things about which they make assertion.”²³

I began this paper by saying that the Book of Genesis was difficult to interpret. I hope this recitation of some of the difficulties will not discourage a Christian from reading and interpreting it. If we stick close to St. Augustine's wise words we will be safe:

“I have learnt that a man is not in any difficulty in making a reply according to his faith which he ought to make to those who try to defame our Holy Scripture. When they are able, from reliable evidence, to prove some fact of physical science, we shall show that it is not contrary to our Scripture. But when they produce from any of their books a theory contrary to Scripture, and therefore contrary to the Catholic faith, we shall have some ability to demonstrate that it is absolutely false, or at least we ourselves will hold it so without any shadow of a doubt. And we will so cling to our Mediator, in whom are hidden all the treasures of wisdom and knowledge, that we will not be led astray by the glib talk of false philosophy or

frightened by the superstition of false religion. When we read the inspired books in the light of this wide variety of true doctrines which are drawn from a few words and founded on the firm basis of Catholic belief, let us choose that one which appears as certainly the meaning intended by the author. But if this is not clear, then at least we should choose an interpretation in keeping with the context of Scripture and in harmony with our faith. But if the meaning cannot be studied and judged by the context of Scripture, at least we should choose only that which our faith demands. For it is one thing to fail to recognize the primary meaning of the writer, and another to depart from the norms of religious belief. If both of these difficulties are avoided, the reader gets full profit from his reading. Failing that, even though the writer's intention is uncertain, one will find it useful to extract an interpretation in harmony with our faith.”²⁴

References

1 St. Augustine, *The Literal Meaning of Genesis*, translated and annotated by John Hammond Taylor, S.J., Newman Press, New York, 1982, Volume I, Book 8, Chapter 2, pp.35,36.

A good example of the use of St. Augustine's rule is the difficult passage from Psalm 136:8,9:

"O daughter of Babylon, miserable: blessed be he who shall repay thee thy payment which thou hast paid. Blessed be he that shall take and dash thy little ones against the rock." St. Benedict in the Prologue to his Rule interprets this passage in the moral sense: "...and hath taken his bad thoughts, while they were yet young and dashed them down upon the (Rock) Christ."

The new *Roman Office* has deleted this passage from Psalm 136, and several other of the so-called "cursing" Psalms as well. This seems to me to be a bad Scriptural principle, to delete rather than explain a difficult passage.

2 St. Augustine, *Op. cit.*, Book V, Chapter 5, pp.155,156.

3 St. Thomas Aquinas, "The Work of the Six Days," *Summa Theologica*, Q.74, Art.2, Benzinger Brothers, New York, 1947, pp.356,357.

4 *Acta Apostolicae Sedis*, 1 (1909) 567-569; cf. *Rome and the Study of Scripture*, Abbey Press, St. Meinrad, IN, 1964, p.123.

5 *Rome and the Study of Scripture*, p.124.

6 Pope Pius XII, "The Proofs of the Existence of God in the Light of Modern Natural Science," *L'Osservatore Romano*, November 23, 1951, p.1; translated from the Italian by Bro. Stanislaus Ribera-Faig, O.S.B.

7 Pius XII, *Op. cit.*, p.1.

8 Peter Fehlner, F.F.I., *In the Beginning - The Church's Teaching on the Origin of Man*, in *Christ to the World*, (published in 3 parts in this journal, Nos. 1, 2, and 3), No. 3, May-August, Rome, 1988, pp.245,246.

9 Hugh Ross, *The Fingerprint of God, Scientific Discoveries Reveal the Unmistakable Identity of the Creator*, Promise Publishing Co., Orange, CA, 1991, pp.123,124.

10 Heinz R. Pagels, *Perfect Symmetry: The Search for the Beginning of Time*, cited in Ross, *Op. cit.*, pp.113,114.

During the Middle Ages, Science, Philosophy and Scripture were in perfect harmony as reflected in St. Thomas Aquinas's great synthesis, the *Summa Theologica*. Much is made, and rightly so, of the divorce between Scripture and science which began with Galileo, but equally important is the split between philosophy and science which started with Isaac Newton. Newton's Theory of Gravity is unreasonable, because it requires action at a distance, There is no way that two material bodies can act on one another at a distance. Jacob Bronowski says:

“When Newton was challenged on such questions as ‘You have not explained why gravity acts,’ ‘You have not explained how action at distance could take place,’ or indeed ‘You have not explained why rays of light behave the way they do,’ he always answered in the same terms: ‘I do not make Hypotheses.’ By which he meant, ‘I do not deal in metaphysical speculation. I lay down a law, and derive the phenomena from it.’”

Jacob Bronowski, *The Ascent of Man*, Little, Brown and Co., Boston, 1973, p.234.

From Newton's time on, the history of science is littered with unreasonable theories, such as the theory of evolution, but Hawking's "vacuum fluctuation model" has to take the prize.

11 St. Augustine, *Op. cit.*, p.167.

12 Ross, p.145.

Ross's complaint against "apparent age" is similar to that of the evolutionist Stephen Jay Gould who writes:

“If God made each of the half-dozen human species discovered in ancient rocks, why did he create an unbroken temporal sequence of progressively modern features - increasing cranial capacity, reduced face and teeth, larger body size? Did he create to mimic evolution, and test our faith thereby?”

Stephen Jay Gould, *Hen's Teeth and Horses' Toes*, W.W. Norton and Co., New York, 1983 p.259.

Philip Johnson a lawyer who specializes in exposing and rebutting specious arguments, responds:

“That way of putting the question makes it sound as if Darwin proposed his theory because the presence of an abundance of fossil intermediates between apes and humans required some explanatory hypothesis. Of course what actually happened is that the theory was accepted first, and the supporting evidence was discovered and interpreted in the course of a determined effort to find the ‘missing links’ that the theory demanded. The question this sequence of events raises is not whether God has been planting fossil evidence to test our faith in Genesis, but whether the Darwinist imagination might have played an important role in construing the evidence which has been offered to support Darwin's theory.”

Philip E. Johnson, *Darwin on Trial*, Regnery Gateway, Washington, D.C., 1991, p.80.

13 Fehlner, *Op. cit.*, pp.61,62.

14 Fehlner, p.160.

15 Ross, p.112.

16 The Michelson-Morley experiment of 1887 was designed to prove the existence of the so-called "ether wind." Space was thought to be filled with an invisible, weightless fluid, that allowed light waves to move through it, much as water in a pond ripples away from a thrown stone. A man standing on the bridge of a ship that is traveling on the water at a fairly high speed, feels a breeze even on a windless day. So Michelson and Morley reasoned that there should be a "wind" caused by the earth moving through the ether. They built an apparatus that fired one beam of light into the wind and another at a right angle. Surprisingly they discovered that the speed of light was the same in both directions. Either there was no ether, or as Michelson and Morley concluded, it was too thin to be measured.

Some creationists claim that this experiment proves that the earth is not moving. But if space is not filled with ether, and is rather an absolute vacuum, and if the speed of light is indeed the same in all directions, this experiment would not have been able to detect whether the earth was moving or not. That is why it was soon followed by Einstein's Special Theory of Relativity which states: "There is no absolute reference from which absolute motions in space can be measured."

17 Ross, p.42.

18 Ross, p.114.

19 Quoted in Walter Van Der Kamp, *Does Space Know Place and Movement Rest?* paper presented at a Creationist Conference in Germany, 1990; Walter Van Der Kamp, 14813 Harris Rd., Rt. 1, Pitt Meadows B.C. Canada.

20 Van Der Kamp, *How Long Halt Ye Between Two Opinions*, *Op. cit.*, p.20.

I had sent a first draft of this article to some of my Catholic geocentric friends, who without my knowledge sent a copy to a member of the Tychonian Society. This man wrote offering me a thousand dollars reward, if I could prove that the earth was moving. I could see that if I gave the standard textbook answer, the stellar parallax of star 61 Cygni and others, he would probably have answered: but according to Einstein you can't tell if the earth is moving or the star. However he did seem somewhat embarrassed by the claim that the "aberration circlets were real." But he said that I had been too harsh on Van Der Kamp because they were still trying to work out some of the bugs in their new Tychonian model. I wished him good luck.

But at least for the moment, we can summarize the various world systems: the Ptolemaic system does not "save the appearances" (the phases of Venus), and the physics of it don't work (the epicycles); the Tychonic system including the new model, saves the appearances, but the physics of it don't work ("the aberration circlets are real"); the Copernican system, as improved by Kepler and Newton, saves the appearances, and the physics of it work. Therefore it seems best to me to stay with a system that works, but I doubt if my geocentris correspondent would have given me a thousand dollars for this argument.

21 Galileo Galilei, *Dialogue Concerning the Two Chief World Systems*

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