## **Recanting Galileo**

Solange Hertz

Having entered Eden very soon after God opened up scientific inquiry by bringing the animals to Adam "to see what he would call them" (Gen. 2:10), Lucifer was fully aware of the intimate relationship between faith and science. In Galileo Galilei, an indifferent astronomer unhampered by troublesome virtues who had earned considerable recognition for his work in mechanics, he found a ready instrument for subversion. Irascible and likable, a popular teacher and lecturer in perpetual need of cash, Galileo found himself abetted financially and otherwise by the political agitators who enjoyed the patronage of Cosimo II de Medici in Florence.

Appealing to the vanity and curiosity of the common man by publishing in the vernacular rather than in Latin, Galileo was one of the first to carry the revolution directly to those minds least equipped to detect its deadly errors. He also had strong moral support in ecclesiastical circles, from mathematicians and scientific dabblers like the Benedictine Fr. Castelli, not to mention some Jesuit astronomers who may have been his more immediate source of inspiration. Pope Paul V befriended him, and Cardinal Barberini, later Urban VIII, congratulated him in writing on the publication of his Letters on the Sunspots. This was in 1613, and marks the first time the Copernican theory was endorsed in print.

In 1614 Galileo proposed Copernicanism as true in a famous letter to Cosimo's mother, the Grand Duchess Christina. Actually a revised version of one he had previously written to Castelli, it was ignored by the Magisterium; but when a year later the Carmelite friar Paolo Foscarini, a provincial of his Order, made so bold as to support Galileo publicly by attempting to prove that the new theory was not opposed to Scripture, Cardinal St. Robert Bellarmine, as "Master of Controversial Questions," rose to repel these earth-movers presuming to invade the field of metaphysics, where science has no competence.

On April 12, 1615 the saint writes Fr. Paolo:

I have gladly read the letter in Italian and the treatise which Your Reverence sent me, and I thank you for both. And I confess that both are filled with ingenuity and learning, and since you ask for my opinion, I will give it to you very briefly, as you have little time for reading and I for writing:

First. I say that it seems to me that Your Reverence and Galileo did prudently to content yourself with speaking hypothetically, and not absolutely, as I have always believed that Copernicus spoke. For to say that, assuming the earth moves and the sun stands still, all the appearances are saved better than with eccentrics and epicycles, is to speak well; there is no danger in this, and it is sufficient for mathematicians. But to want to affirm that the sun really is fixed in the center of the heavens and only revolves around itself (i. e., turns upon its axis) without traveling from east to west, and that the earth is situated in the third sphere and revolves with great speed around the sun, is a very dangerous thing, not only by irritating all the philosophers and scholastic theologians, but also by injuring our holy faith and rendering the Holy Scriptures false. For Your Reverence has demonstrated many ways of explaining Holy Scripture, but you have not applied them in particular, and without a doubt you would have found it most difficult if you had attempted to explain all the passages which you yourself have cited.

Second. I say that, as you know, the Council [of Trent] prohibits expounding the Scriptures contrary to the common agreement of the holy Fathers. And if Your Reverence would read not

only the Fathers but also the commentaries of modern writers on Genesis, Psalms, Ecclesiastes and Josue, you would find that all agree in explaining literally (ad litteram) that the sun is in the heavens and moves swiftly around the earth, and that the earth is far from the heavens and stands immobile in the center of the universe. Now consider whether in all prudence the Church could encourage giving to Scripture a sense contrary to the holy Fathers and all the Latin and Greek commentators. Nor may it be answered that this is not a matter of faith, for if it is not a matter of faith from the point of view of the subject matter, it is on the part of the ones who have spoken. It would be just as heretical to deny that Abraham had two sons and Jacob twelve, as it would be to deny the virgin birth of Christ, for both are declared by the Holy Ghost through the mouths of the prophets and apostles.

Third. I say that if there were a true demonstration that the sun was in the center of the universe and the earth in the third sphere, and that the sun did not travel around the earth but the earth circled the sun, then it would be necessary to proceed with great caution in explaining the passages of Scripture which seemed contrary, and we would rather have to say that we did not understand them than to say that something was false which has been demonstrated.But I do not believe that there is any such demonstration; none has been shown to me. It is not the same thing to show that the appearances are saved by assuming that the sun really is in the center and the earth in the heavens. I believe that the first demonstration might exist, but I have grave doubts about the second, and in a case of doubt, one may not depart from the Scriptures as explained by the holy Fathers. I add that the words ' the sun also riseth and the sun goeth down, and hasteneth to the place where he ariseth, etc.' were those of Solomon, who not only spoke by divine inspiration but was a man wise above all others and most learned in human sciences and in the knowledge of all created things, and his wisdom was from God. Thus it is not too likely that he would affirm something which was contrary to a truth either already demonstrated, or likely to be demonstrated. And if you tell me that Solomon spoke only according to the appearances, and that it seems to us that the sun goes around when actually it is the earth which moves, as it seems to one on a ship that the beach moves away from the ship, I shall answer that one who departs from the beach, though it looks to him as though the beach moves away, he knows that he is in error and corrects it, seeing clearly that the ship moves and not the beach. But with regard to the sun and the earth, no wise man is needed to correct the error, since he clearly experiences that the earth stands still and that his eye is not deceived when it judges that the moon and stars move. And that is enough for the present. I salute Your Reverence and ask God to grant you every happiness."

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Moderate and well-founded, the Cardinal's admonition stated squarely the tradition of the Church. To the authority of the Fathers can be added that of St. Paul's Athenian convert Denis the Areopagite, plus that of Peter Lombard, author of the *Sentences*, and of St. Thomas Aquinas, not to mention Dante. Relying as they did on Scripture as sole source of revelation, even Protestant reformers like Luther, Melanchthon and Calvin were outraged at the attack on geocentricity. After Aristotle had so ably defended it with arguments from common sense, no thinking person had till then seriously questioned it.

Based on natural reasoning, his conception of the universe comprised two unequal parts, one celestial, beyond the lunar orbit; and the other below this orbit, consisting of the spherical earth, fixed and at rest in the center of the whole system. All was enclosed in a Primum Mobile, outside of which he concluded there was "neither place, nor void, nor time. Hence whatever is there is of such kind as not to occupy space, nor does time affect it." In other words, beyond the celestial heavens was the metaphysical great outdoors, God's "third heaven" of light and love, naturally impenetrable by man, but into which chosen souls like St. Paul may be supernaturally introduced

by the divine favor.

As later adjusted by Ptolemy, this system accorded admirably with both revelation and visible appearances. The majestic heavens with their mighty cycles revolved in gracious harmony around a stationary earth as their center, providing not only its needs, but incomparable adornment, nay, glory. The whole is driven by mighty angelic intelligences whose duty it is to sustain the cosmological counterpoint in the transcendent "music of the spheres." Although, according to St. Thomas, planets can be said to orbit "naturally," this is only in the sense that they have no repugnance to circular motion, for material bodies cannot move themselves. Having no active, but only a passive potency for motion, they have to be moved by voluntary agents, in other words, by angels.

Many geocentric systems besides those of Aristotle and Ptolemy have been developed, Tycho Brahe's being perhaps the best known. The different arrangements each uses to explain the celestial movements may or may not be true, but all agree on the centrality of Earth, around which everything takes place. That Earth is immovable does not necessarily mean that it is stationary, but only that it occupies an immovable position at the center of the universe. The late Fernand Crombette, a French Catholic scholar of extraordinary genius whose work is only now becoming known, was a confirmed geocentrist who came to the conclusion on the basis of studies in Scripture and ancient hieroglyphs that the earth is in fact not motionless.

He maintained that it turns in place on its axis once every twenty-four hours, while at the same time traveling a very small yearly orbit "at the pace of a man walking," around the universal center, which its circumference touches at all times. The sun, traveling around the same universal center in a much larger orbit in the company of the planets, would therefore be revolving around the orbiting Earth as well, in true geocentric style.

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Although neither geocentricity nor heliocentricity are provable from natural observation, geocentricity can be proved theologically, whereas heliocentricity cannot. Galileo and his friends had to confront able polemicists like Lodovico delle Colombo, who based his Against the Motion of the Earth exclusively on argumentation from Scripture. Like all orthodox theologians of the day, he believed that Scripture did in fact teach science where the constitution and movements of the heavens were concerned, and was not merely indulging in symbolism and metaphor. Given human inability to see celestial motion firsthand, the actual structure of the universe is properly an object of faith..

God had to reveal that He had set the Earth at the center of the universe because, like Aristotle, we might be led to believe so from reasonable observation, on purely human faith, but we could never be certain in view of the impossibility of empirical proof. Where the movements of the heavens are concerned, earthlings occupy the position of a man on a train passing another train. Aware of motion, but lacking some fixed point of reference beyond the two trains, he has no way of knowing which one is moving, or whether in fact both are moving. He knows only that their relative positions are shifting. No more than Galileo's telescope, the deepest space probe cannot take us outside creation to view objectively what goes on there, because the most powerful instruments detect and measure only relative movement or acceleration.

The fact remains that few if any passages from the Bible can be adduced in favor of the

heliocentric hypothesis, whereas some two thousand have been found to support the geocentric one. To Msgr. Piero Dini, one of Galileo's most fervent adherents, Cardinal Bellarmine quoted Psalm 18 as evidence that the sun moves around the earth, verse 6 picturing the sun"as a bridegroom coming out of his bride chamber," rejoicing "as a giant to run the way: His going out is from the end of heaven, and his circuit even to the end thereof."

There are many such passages in the *Bible*, outstanding among them being, of course, the one relating how Joshua commanded, "Move not, O sun, toward Gabaon, nor thou, O moon, toward the valley of Ajalon," whereupon, "the sun and the moon stood still, till the people revenged themselves of their enemies" (*Jos.*10:12-13). And again, as St. Robert Bellarmine pointed out, the Preacher says," The sun riseth and goeth down and returneth to his place: and there rising again, maketh his round by the south and turneth again to the north" (*Eccles.* 1:5-6)

Scripture also specifies that the Earth is immovable in the face of these solar and lunar peregrinations, *Psalm* 92 stating flatly that God "hath established the world which shall not be moved." *Psalm* 103 says He has"founded the earth upon its own bases; it shall not be moved forever and ever," *Psalm* 95 telling us God has "corrected the world, which shall not be moved." Again, in *I Paralipomenon* 16:30, "He hath founded the earth immovable," and according to Job 26:7, God by His power"stretched out the north over the empty space and hangeth the earth upon nothing."

It is the unanimous opinion of the Fathers of the Church, that the universe was made for man. He is its crown, apogee and whole raison d'être. Although created last of all the creatures, on the sixth and final day of God's work, man was first in his Maker's intention. Everything was waiting for him when he appeared, and it has remained at his service ever since, having no reason to exist without relation to him, for God said,"Let us make man to our image and likeness: and let him have dominion over the fishes of the sea, and the fowls of the air, and the beasts, and the whole earth and every creeping creature that moveth upon the earth" (*Gen.* 1:26). As unique ruler of material creation, man properly occupies a central position on Earth, midway between the macrocosm and the microcosm, all of which is capitulated in himself.

If God's purpose in creating Earth went no farther than providing a glorious natural habitat for His favorite creature, it could be argued that the centrality of Earth was not strictly necessary, but we know from revelation that God had another greater intention beyond the creation of Adam, and that was to become Man himself. Possessing a spiritual soul as well as the material body he shared with other creatures, Adam was the point in the universe where matter and spirit joined. He alone was designed to provide God entry into His own creation, for he alone was created with a potency for that union with the divine nature which would be consummated in the Sacred Humanity of our Lord, Second Person of the Most Blessed Trinity.

In view of Earth's preeminent destiny as chosen ground of the Incarnation, its importance can hardly be overestimated. Congruity alone demands that, like its master Adam, it be found at the heart of the universe. It is there that the Cross was planted on the hill of Calvary and there that the Redemption and all the sacred mysteries took place, against the day when "the creature also itself shall be delivered from the servitude of corruption, into the liberty of the glory of the sons of God" (Rom. 8:21). Among the myriads studding space, only Earth has been watered by the Precious Blood of Christ.

The Holy Sacrifice continues to be offered there, and the Sacred Heart of the God-Man, throbbing even now in the Blessed Sacrament, abides there physically and spiritually as divine Center the of the universe. Earth, therefore, is the universe's consecrated tabernacle, chosen

habitation of the eucharistic Christ. Could it be anywhere but where Scripture says it is? Those who have temerariously removed the divine sacramental Presence from the main altars of churches to side chapels or otherwise remote corners were preceded in their impiety by those who sought to displace Christ the King from His throne here below by relegating Earth, His predestined See, to an obscure outpost in a second rate galaxy.

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In 1616 the Congregation of the Index – founded by St. Pius V in 1571 and now headed by Cardinal Bellarmine acting in the name of Paul V – was forced to take action, based on the findings of consultors to the Holy Office. Without naming Galileo, it banned all writings which treated of Copernicanism as anything but an unproven hypothesis, "because it has come to the attention of this Congregation that the Pythagorean doctrine which is false and contrary to Holy Scripture, which teaches the motion of the earth and the immobility of the sun, and which is taught by Nicholas Copernicus in *De Revolutionibus Orbium Celestium* and by Diego de Zu–iga's On Job, is now being spread and accepted by many - as may be seen from a letter of a Carmelite Father entitled 'Letter of the Rev. Father Paolo Antonio Foscarini, Carmelite, on the Opinion of the Sun, and the New Pythagorean System of the World,' printed in Naples by Lazzaro Scoriggio in 1615: in which the said Father tries to show that the doctrine of the immobility of the sun in the center of the world, and that of the earth's motion, is consonant with truth and is not opposed to Holy Scripture.

Therefore, so that this opinion may not spread any further to the prejudice of Catholic truth, it ( the Sacred Congregation) decrees that the said Nicholas Copernicus' De Revolutionibus Orbium, and Diego de Zu–iga's On Job, be suspended until corrected; but that the book of the Carmelite Father, Paolo Foscarini, be prohibited and condemned, and that all other books likewise, in which the same is taught, be prohibited.

At Cardinal Bellarmine's entreaty, Galileo had previously agreed to teach the new theory only as an unproven hypothesis, but actually he continued to expound it as probable. In 1632 in his *Dialogue* concerning Two Chief World Systems, with a pretense of objectivity, he put the telling heliocentric arguments into the mouth of the champion of the piece, letting the geocentric ones fall from the lips of an idiot labeled *Simplicio*. Prefaced by a hypocritical justification of the Index' decision, the book fooled no one. "I am told on very good authority," its author wrote to a friend, "that the Jesuit fathers have persuaded those concerned that my book is more reprehensible and more calculated to harm the Church than were the writings of Luther and Calvin."

A year later Galileo – and not just his theory – was brought to trial, where it was established that he had in fact taught it as proved, besides glossing Scripture to support it. His judges maintained,

The proposition that the Sun is the center of the world and does not move from its place is absurd and false philosophically and formally heretical, because it is expressly contrary to the Holy Scriptures.

And likewise,

The proposition that the Earth is not the center of the world and immovable but that it moves, and also with a diurnal motion, is equally absurd and false philosophically, and theologically considered at least erroneous in faith.

The condemnation was signed by seven judges, but not by the Pope, then Urban VIII, so there is no question here of an ex cathedra pronouncement. Nonetheless, Galileo had by this time completely alienated Urban, who formerly had not only encouraged his studies, but had even granted him a pension. No "torture " of any kind was administered. Wishing to remain in the Church, the seventy-year-old Galileo abjured his opinions without coercion or difficulty, expressing bitterness only at being sentenced to punishment.

"We condemn you to the formal prison of this Holy Office during our pleasure," the bench decreed,

and by way of salutary penance we enjoin that for three years to come you repeat once a week the seven penitential Psalms. Reserving to ourselves the liberty to moderate, commute, or take off, in whole or in part, the aforesaid penalties and penance.

They did. Galileo's favorite daughter, Sr. Maria, undertook to recite the Psalms for her father, and the "formal prison of the Holy Office" turned out to be his own house in Arcetri near Florence. If he ever said, "Still, it moves," as so often attributed to him, no contemporary recorded it.

In his *Dialogue*, now prohibited by public edict, he admitted he had disobeyed the previous injunction of the Inquisitors. He signed a long statement protesting that

...with a sincere heart and unfeigned faith I abjure, curse and detest the aforesaid errors and heresies and generally every other error, heresy and sect whatsoever contrary to the Holy Church, and I swear that in future I will never again say or assert, verbally or in writing, anything that might furnish occasion for a similar suspicion regarding me; but, should I know any heretic or person suspected of heresy, I will denounce him to this Holy Office or to the Inquisitor or Ordinary of the place where I may be. ...

He continued doing experimental work on motion for about ten years, dying blind and still under nominal house arrest. Two centuries later Thomas Huxley, in a letter to Prof. St. George Mivart, dated November 12, 1885, summed up his affair thus:

I gave some attention to the case of Galileo when I was in Italy, and I arrived at the conclusion that the Pope and the College of Cardinals had rather the best of it!

Taking her information from *The Pontifical Decrees against the Doctrine of the Earth's Movement and the Ultramontane Defense of Them*, compiled in 1870 by the English Catholic priest William W. Roberts, the Catholic creationist writer Paula Haigh has pointed out that a generation after Galileo's death.

In 1664 the Church went to further lengths to extirpate his error: The Index for that year was prefixed by a Bull entitled *Speculatores Domus Israel*, it was signed by Pope Alexander VII, who declared, "We, having taken the advice of our Cardinals, confirm and approve with Apostolic authority by the tenor of these presents, and command and enjoin all persons everywhere to yield to this Index a constant and complete obedience."

The importance of this document cannot be minimized, for it included and re-affirmed not only previous formal condemnations, but "...all the relevant decrees up to the present time, that have been issued since the Index of our predecessor Clement."

Miss Haigh therefore rightly concludes,

The evidence for papal infallibility in the Galileo case rests then upon the Bull of Alexander VII in 1664.

She discerns a twofold basis for its authority:

1) The decrees of the Index and the Inquisition which were based on the truth of the Church's tradition, especially as in this case it rested upon the unanimity of the Fathers and the constant

position of the Church; and

2) the infallibility of the Pope speaking in his own official capacity as Head of the Church and therefore ex cathedra, even though not defining any new dogma but simply affirming tradition.

The modern theologians have never addressed the problem posed by this Bull of Alexander VII. If they had, they would need to admit its direct papal authority and search for some subsequent document by a subsequent pope that formally and specifically abrogated, i.e., nullified the 1664 Bull. But no such document has ever been found or produced. The case seems to me to me exactly parallel with that of the Bull Quo Primum by Pope St. Pius V by which he established the Mass of the Roman Rite in perpetuity. $\acute{O}$ 

The import of the Galileo controversy cannot be overestimated, for the displacement of Earth made possible the resurrection of many old theological errors camouflaged in technical vocabulary as scientific research. Evolution is only one of them. Heliocentrism itself is that of Pythagoras, which Copernicus had re-issued as a working hypothesis in *De Revolutionibus Orbium Caelestium*. Published by the Protestant theologian Osiander almost from the astronomer's deathbed in 1543, it appeared strategically just two years before the opening of the *Council of Trent*.

Material infinity as conceived today is yet another hoary heresy, preached in Aquinas' day by the heretic Siger de Brabant and others. Shortly before Galileo it had emerged in the work of the renegade Dominican friar turned Calvinist, Giordano Bruno, who set himself to presenting Copernicanism in metaphysical terms. Denying the centrality of Earth or any other planet, and affirming the infinity of space and the existence of other worlds, he too was taken to task by that zealous watchdog of orthodoxy St. Robert Bellarmine.

Duly prosecuted, he unfortunately remained obdurate and was burned at the stake in 1600. Galileo was thirty-six years old at the time and already deeply won to the new ideas, but when it became his turn to stand trial, he feigned compliance. Far more dangerous than Bruno, he set the example which the Modernists who succeeded him would follow. Submitting to the Church as he did, they would seek to change her thinking from within, not by confrontation, but by subversion. Thus began the times when" the powers that are in heaven shall be moved" (*Mark* 13:25), concerning which our Lord said, "Watch!"

Slowly but surely faith in God gave way to faith in science, whose dicta were believed rather than proven, because as often as not, they were not susceptible to proof. Despite the popular impression, Galileo had scoffed at experimental proof, finding it suitable only for untutored minds who couldn't handle equations. He is rightly credited as one of the founders of modern physics, a discipline forged specifically to enact its own laws in its pursuit of scientific knowledge. Having once burst the bonds of natural philosophy, science grew into a kind of gnosticism, whose deepest secrets were restricted to an elite and intelligible only to initiates.

The great Aquinas had maintained that the insights given by mathematics are shallow compared to those offered to everyone by the physical senses, but he was soon left behind. Gradually abandoning the real for the hypothetical, the course of science led ever farther from the visible and observable to the hypothetical and purely mathematical. The mythical "x" of algebra and the infinity sign, useful devices within specific frames of reference, began taking on substance and existing on their own. At the same time, deductive reasoning, which tends to certifiable conclusions, was abandoned in favor of inductive reasoning, which yields probabilities at best, resting as it does on constantly accumulating data.

Perpetually shifting its premises, the new science has long lost interest in objective truth, preferring to concern itself with whatever worked for the moment. For all their theorizing, and

with no sense of irony or contradiction, the new gnostics therefore ended by opting for the "practical." Small wonder that from its inception science produced successes in technology similar to those its handmaid usury was producing in economics. That gracious whore the Renaissance conceived them both and once brought to term, they maintained their ascendancy through a magical ability to confer material comforts and conveniences in ever cascading quantity on bewitched customers.

The calendar of the saints contains no modern scientists, yet by the close of the 19th century they were imposing their dicta on religion. Only at the cost of constantly tailoring the Faith to the current science fiction could Catholic apologists continue to maintain that there was no contradiction between science and religion. Acknowledging no master, science opened itself without reserve to every dazzling inspiration of the Enemy, against whose delusions it no longer had the slightest protection.

In the crusade for intellectual freedom, all absolutes eventually gave way, and what was once an ordered, closed, unique universe created by a loving God and governed by His angelic ministers, became a cold "expanding" self-perpetuating chaos where matter itself, by infinite extension, became eternal. To the Christian, whose Creed states, "I believe in God, the Father almighty, Creator of heaven and earth," a limitless material universe is sheer nonsense. If the universe is created, by that very token it is finite, as incapable of generating itself as evolving some Teilhardian noosphere never there to begin with. Even angels, by nature purely spiritual, are finite and limited, because like everything which is not God, they too are created.

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According to the respected interpretation of Ven. Clement Holzhauer and the school of Nicholas of Lyra, we are now in the Fifth Age of the Church, which began with the reign of the Emperor Charles V, not long before the birth of Galileo. In the Apocalypse it is symbolized by the letter to the church of Sardis, at which Christ levels the accusation, "Thou hast the name of being alive, and thou art dead." It is significant that the name Sardis can mean "remnant, " for excepted from the general corruption are only "a few names in Sardis, which have not defiled their garments" (*Apo.* 3;1,4). Engulfed in lies and heresy unparalleled, the vast majority of Christians no longer live the faith.

Catholics today are accustomed to modernist popularizers like Fr. Bruce Vawter, who explained in *A Path through Genesis* that the *Bible*, although quite possibly inspired in the main, contains many incidental errors, assuring his readers that only "what the author intended to teach" by means of such errors need be taken seriously. Apologizing for the "obviously pathetic notion of the universe" God's Word makes use of, he maintains that this "erroneous conception of the universe ... is no more part of the author's teaching than is the faulty science included in the 'sunset,' 'celestial sphere' or 'four winds' of our everyday speech."

Nonetheless, Fr. Vawter's contention is baseless, not only theologically, but scientifically. Every experiment mounted so far to prove heliocentricity has therefore proved geocentricity as well, depending on the interpretation of the data. The Foucault pendulum demonstrates equally well that the earth is rotating, or that the universe is rotating around it, or that other motions are taking place. It is the same with gyroscopes, synchronous satellites, parallax, coriolis effects or whatever. About all that can be said with certainty about Copernicus' theory is that it shows us

how the universe would look to us if we were standing on the sun.

It might be true, but is it? Speaking of the limitations of the experimental method in arriving at certainty, Pierre Duhem, the eminent French physicist, wrote back in 1908:

Suppose the hypothesis of Copernicus were able to explain all known appearances. What can be concluded is that they may be true, not that they are necessarily true, for in order to legitimate this last conclusion, it would have to be proved that no other system of hypotheses could possibly be imagined which could explain the appearances just as well.

Long ago Alexander von Humboldt admitted,

I have already known for a long time that we have no proof for the system of Copernicus. . . but I do not dare to be the first one to attack it.

In other words, the notion that the earth revolves around the sun having become dogma, its denial spells automatic excommunication from the scientific establishment. As for the unthinking masses, a lie need only be systematized in textbooks to pass for truth. When confronted with demands for substantiation of their claims, heliocentricity's adepts are not above taking refuge in ad hominem arguments, relegating the geocentrist to the fundamentalist snake-handling contingent, the lunatic fringe or gratuitous membership in the Flat Earth Society.

The fact remains that the well-known Michelson-Morley experiment, mounted in 1887 to prove the theory, backfired and actually seemed to support geocentricity, or at least an earthly inertia which cannot be overcome. No significant progress has been made in that direction since. Heliocentricity not only remains unproven, but the Newtonian physics which were its main support are being openly questioned, if not discredited, ever since Maurice Allais and others have shown experimentally that Newton's theory of gravity can no longer account for proven facts. Creationist scientists worldwide like those organized by CESHE<sup>1</sup> in Belgium and France, are making serious headway against the old myths, which even atheists are beginning to abandon.

In 1976 a paper published by Y.P. Varshni of the University of Ottawa entitled "The Red Shift Hypothesis for Quasars: Is the Earth the Center of the Universe?", admitted that on the basis of study, the disturbing possibility had to be seriously entertained that Earth was the center:

The arrangement of quasars on certain spherical shells is only with respect to the earth. These shells would disappear if viewed from another galaxy or a quasar. This means that the cosmological principle will have to go. Also, it implies that a coordinate system fixed to the earth will be a preferred frame of reference in the universe. Consequently, both the Special and the General Theory of Relativity must be abandoned for cosmological purposes.

Despite these hopeful signs, Heliocentricity, a true heresy of Sacred Science, continues to be taught as dogma, having infected even the teaching organs of the Church. Without actually contradicting the Bull which condemned Galileo's heresy, two weak Popes eventually gave way before the rising tide of scientism. In 1757 Benedict XIV opened the floodgates by permitting the false theory to be taught in schools, and in 1822 Pius VII began removing books on Copernicanism from the Index, allowing a limited entry to "the general opinion of modern astronomers." As Miss Haigh notes, however,

Mere practice, such as the permission to read forbidden books, does nothing to change the heretical nature of these books.

When finally all heliocentric works were removed from the Index in 1835, the sequel was not

<sup>&</sup>lt;sup>1</sup> Cercle Scientific et Historique, CESHE - France, F-02800 Vendeuil.

hard to predict. Two modern encyclicals, Leo XIII's *Providentissimus Deus* in 1893, and Pius XII's *Divino afflante Spiritu* in 1943 (said to have been largely the work of Cardinal Bea) would staunchly defend the divine inspiration of the Scriptures, but at the same time they allowed considerable leeway to accommodated meanings. Although maintaining the authenticity of the Vulgate as decreed by the Council of Trent, *Divino afflante* holds that "its authenticity is not specified primarily as critical, but rather as judicial," a curious distinction, inasmuch as all that matters is what Scripture really says.

"The Holy Fathers, the Doctors of the Church and the renowned interpreters of past ages" are characterized as "sometimes less instructed in profane learning and in the knowledge of languages than the Scripture scholars of our time." No mention is made of the fact that these Fathers and Doctors -- notably St. Jerome, to whom we are indebted for the present form of the Vulgate -- were in fact multi-lingual and far closer to ancient sources than the ablest scholar today, both in time and in space, not to mention in mentality. Fruitful union is condescendingly hoped for between "the doctrine ... of the ancient authors and the greater erudition and maturer knowledge of the modern." Solutions to biblical difficulties must be sought that will "satisfy the indubitable conclusions of profane sciences."

In other words, Galileo's views are largely the norm in biblical exegesis, now forming part of the greater body of scientific scholarship and no longer the exclusive province of the Holy Ghost. Vatican II delivered the final blow in the Pastoral Constitution on the Church in the Modern World by deploring

...certain habits of mind, sometimes found too among Christians, which do not sufficiently attend to the rightful independence of science. The arguments and controversies which they spark lead many minds to conclude that faith and science are mutually opposed (III, 36).

There is indeed no opposition between faith and science, but faith exposes false science on contact.

In *Syllabus Lamentabili sane* and elsewhere St. Pius X allowed scientism no quarter, categorically condemning the notions that "the interpretation of the sacred books ... is subject to the more accurate judgment and correction of the exegetes," and that "Divine inspiration does not extend to all of Sacred Scripture, so that it renders its parts, each and every one, free from error." Also condemned was the prevalent idea that, "Since the deposit of Faith contains only revealed truths, the Church has no right to pass judgment on the assertions of the human sciences," the truth of the matter being that Scripture contains many truths which can be known by reason alone or even simple observation, and it is inerrant in all.

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In 1979 John Paul II, the Pope generally recognized as *De Labore Solis* in St. Malachy's famous prophecy, requested the *Pontifical Academy of Sciences*, in conjunction with the Vatican Secretariat for Non-Believers, to re-examine Galileo's case and "in frank recognition of wrongs wherever they originate, to dispel the mistrust that this affair still arouses in many minds, preventing fruitful concord between science and faith, between the Church and the world." The groundwork had been laid by a liberal French Dominican, Fr. Dominic Dubarle, an atomic scientist and Pugwash conferee, who first broached the idea to Pope John XXIII when the latter was papal Nuncio in Paris. Paul VI steadfastly refused the possibility, but John Paul II proved more

receptive. A Commission for this heady work was duly named, chaired by Archbishop Paul Poupard of the Secretariat. Among its members figured the American Fr. William Wallace, a former electrical engineer, physicist and Commander in the U.S. Navy become professor of history and philosophy at Catholic University in Washington, D.C. Lecturing in March 1982 at King's College in Wilkes-Barre, he informed his listeners,

The total content of revelation was not available for authoritative definition with the death of the last Apostle. Only through slow and painstaking scientific investigation were the literary genres of the Bible uncovered and the rules for its interpretation ascertained. The example is simple, but it illustrates well the true complementarity of science and religion, of reason and belief. Were such rules known to Rome in 1615 and 1633, Galileo would have been spared the indignity to which he was finally subjected. But had he not suffered that indignity, had he not been motivated by that passionate desire for truth that brought it about, Scriptural studies would never have achieved the status they enjoy today.

In the light of such sentiments, the outcome of the re-trial was easily predictable, as foreseen by Walter van der Kamp, Protestant editor of the geocentrist Bulletin of the *Tychonian Society*. In the December 1981 issue he wrote,

Straws in the wind and the Vatican's tactical retreats from 1822 onwards presage a conciliatory course and a compromise whereby the give is on Rome's side and the take on the side of Scientism. For unless the Catholic Church surrenders the claim, hushed up but never yet openly and completely abandoned, that the Earth according to Holy Writ is the unmoved center of the observable Universe, and hence is that center – is there anyone who thinks that secular science will sign a peace treaty? . . .In about a hundred years the Roman Church has reached the position that it took the large mainline Protestant denominations 300 years to reach. ... Galileo will be canonized, and St. Robert Bellarmine quietly sacked.

When John Paul II rehabilitated Galileo in the course of his address before the *Pontifical Academy of Sciences* on Halloween 1992, the American media were unanimous in handing down their infallible judgment. While on the west coast the *Los Angeles Times* headlined, "Earth Moves for Vatican in Galileo Case - Vatican Admits Error in 17th Century Case," on the east coast the same article by William Montalbano was carried by the *Washington Post* under the caption "Vatican Says Galileo Right after All - 3 Centuries Later, Pope Admits Error."

The journalist declared triumphantly,

The Roman Catholic Church has admitted to erring these past 359 years in formally condemning Galileo Galilei for entertaining scientific truths it long denounced as against-the-Scriptures heresy, informing the public that the Papal Commission had finally concluded that Galileo's clerical judges acted in good faith but rejected his theories because they were incapable of dissociating faith from an age-old cosmology -- the biblical vision of the earth as the center of the universe. ... Unable to comprehend a non-literal reading of Scripture, according to the commission, the judges feared that if Galileo's ideas were taught, they would undermine Catholic tradition at a time when it was under attack by Protestant reformers. ...

A Reuters account quoted the Pope as admitting, The geocentric representation of the world was commonly admitted in the culture of the time as fully agreeing with the teaching of the Bible, of which certain expressions, taken literally, seemed to affirm geocentrism.Ó Confirming the common verdict, the diocesan Arlington Catholic Herald read, "Pope John Paul II formally acknowledged that the church erred when it condemned 17th century astronomer Galileo Galilei for maintaining that the earth revolved around the sun. . . The Pope noted that Galileo rejected the Church's suggestion that he present the Copernican system as a hypothesis, instead of demonstrated truth. No one at that time had laid out 'irrefutable proof ' of the Copernican model, the pontiff

said." Alas, the article neglects to mention that this irrefutable proof has yet to be supplied by Galileo or anyone else. Walter van der Kamp deplored the Vatican's capitulation at this particular juncture in history, at a time when"orthodox Christianity driven back step by step since 1543 dares to fight again. During the last decennia the tide of the Battle between Science and Theology has begun to turn. All over the world ' liberal ' denominations, the Roman Catholic Church included, are losing members by the ten thousands, while evangelical and fundamentalist groups are growing. Creationists speak and act with such a zeal that Darwin's devotees now are rallying around their leaders to organize a defense. To top all these anachronistic apparitions, even defenders of a geocentric Universe, pointing at the vitium originis, the basic error behind the downfall of Western Christianity, are again coming out of the woodwork."

Bulletin of the Tychonian Society was turned over by Walter Van der Kamp [1913-1998] to Gerardus D. Bouw, Ph.D., who currently titles this publication *The Biblical Astronomer*, at 4527 Wetzel Avenue, Cleveland OH 44109, USA

A number of papers on the Geocentricity-Heliocentricity [A-centricity] issue are temporarily available from <u>origins@PeoplePC.com</u>

From this same source is also available [in electronic form] the out-of-print books, *Beyond Politics*, Solange Hertz, **1995**, 156pp *De Labore Solis*, Walter van der Kamp, **1988**, 172pp [copy permission granted by Mrs Hertz & the Van der Kamp family, respectively]