

Sermon Delivered by Will Lyons and Carole Grace  
at Essex Church, 23<sup>rd</sup> August 2009

## The Tragedy of Galileo (or 'Was Galileo Stitched Up?')

This is a tale of political machination and skullduggery. In the next few minutes I hope I'm going to dispel a few myths:

1. Galileo was the first person to use a telescope to gaze at the heavens.
2. He was tried for heresy.
3. Copernicus was the first to propose that the Sun was stationary and the Earth moved.

Galileo Galilei was born in 1564 - the same year that Shakespeare was born and Michelangelo died. By the age of twenty-five, he got his first lectureship at the University of Pisa and earned a reputation throughout Europe as a scientist (then called 'natural philosophers') and as a superb lecturer. In those days Italy was not a unified state politically although the Catholic Church of Rome held sway. There was not even a common language called 'Italian' - the language of the Church, literature and science was Latin.

Having used the new Dutch invention of the telescope Galileo concluded that Nicholas Copernicus got it right and that the Sun was the centre of the universe and the Earth and planets moved (this was first proposed by the ancient Greek astronomer, Aristarchus, but like lots of other Greek philosophy it was discarded by the early Christian church): this theory was a challenge to the teaching of the Church that the sun and all the stars revolved around a stationary Earth.

The Catholic Church was in ferment at this time as the Protestant Reformation was in full swing in Europe, their backs were to the wall and they were touchy on the subject of who should interpret the Scriptures. They weren't ready to 'modernise' the Church's dogma. The contention between Galileo and the Church was as to who held the correct interpretation of the 'truth'.

Galileo had published some writing and made public statements on Copernicus' idea, and in 1616 he agreed to a compromise with the Church that he should only discuss his 'copernican' ideas hypothetically although he had the support of some senior Church theologians, notably Cardinal Bellarmine and Maffeo Barberini (who later went on to become Pope Urban VIII). In fact, the notion that the earth moved round the Sun was tacitly accepted by the Church but there was NO ACTUAL PROOF THAT THE EARTH SPED ROUND THE SUN.

Cardinal Bellarmine himself said:

*"If there were a real proof that the Sun is in the centre of the universe, that the Earth is in the third sphere, and that the Sun does not go round the Earth but the Earth round the Sun, then we should have to proceed with great circumspection in explaining passages of Scripture which appear to teach the contrary, and we should rather have to say that we did not understand them than declare an opinion false which has been proved to be true. But I do not think there is any such proof since none has been shown to me."*

It is said that even the Protestants Martin Luther and John Calvin were sceptical of Copernican idea.

In fact you cannot tell with your senses that the Earth moves - it can only be proved by mathematics and Relativity Theory - but we won't go there!

Galileo has been described as 'a voracious social and political climber' and he played fast and loose with the hierarchy of the Church, making many enemies among the conservatives, including those who knew the science but would not support him openly. In fact, Cardinal Bellarmine had at least looked through a telescope.

There were 'Copernicans' in other parts of Europe including Thomas Harriott in England who was in fact the first person, not Galileo, to use a telescope to observe the heavens and drew sketches of lunar craters. You can see his recently erected memorial at Syon House on the Thames opposite Kew Gardens where he carried out his observations. Harriott has been airbrushed from history by the flamboyant Galileo. Allan Chapman of Oxford University has described Galileo as a 'self-publicist'.

In 1616, Pope Paul V, according to the Inquisition files which are preserved in the Vatican library, "directed the Lord Cardinal Bellarmine to summon Galileo". The Inquisition file of 1616 reads as follows:-

*'At the palace, the residence of Lord Cardinal Bellarmine, the said Galileo, having been summoned,.... was warned of the error of [his] opinion and admonished to abandon it; and immediately thereafter...in the name of His Holiness the Pope, to relinquish altogether the opinion that the Sun is the centre of the world and immovable and that the Earth moves; nor further to hold, teach, or defend it in any way whatsoever, verbally or in writing; otherwise proceedings would be taken against him by the Holy Office; which injunction the said Galileo acquiesced in and promised to obey'.*

This entry is suspicious. It appears in the Inquisition file where one would expect an actual injunction (if it existed) to appear. The entry appears on the same page as the entry for the previous day but every other report, legal act, and entry in the entire file begins at the top of a new page. It is widely believed by historians that the reported injunction of Galileo was "a false injunction": the injunction never happened, but a false report was maliciously planted in the file by one of Galileo's enemies.

In fact, therefore, when Galileo was eventually hauled up before the Inquisition the charge was not heresy but with breaking an injunction which may not have existed.

Years later, with the election of the new Pope, Urban VIII, (his one-time friend Maffeo Barberini) Galileo thought he was safe in publishing a controversial new book in Florence. This was the 'Dialogue Concerning the Two Chief World Systems'. The book, which quickly sold out, soon became the talk of the literary public. Then Galileo learned that orders had come from Rome to Florence to suspend publication of his book because Jesuit enemies of Galileo had convinced the Pope that the 'Dialogue' was nothing but an exposition of the Copernican model.

Pope Urban told Francesco Niccolini, who had come to the Vatican on behalf of Galileo to protest the suspension of publication, "Your Galileo has ventured to meddle in things that he ought not and with the most grave and dangerous subjects that can be stirred up these days."

On the morning of June 22, 1633, Galileo, dressed in the white shirt of penitence, entered the hall of the Inquisition in Rome to recant:

I, Galileo, son of the late Vincenzo Galilei, Florentine, aged seventy years,...kneeling before you, having before my eyes and touching with my hands, the Holy Gospels, swear that I have always believed, do believe, and by God's help will in the future believe, all that is held, preached, and taught by the Holy Catholic and Apostolic Church. WHAT A CLIMBDOWN!

His sentence was: "Whereas you, Galileo, aged seventy years, were in the year 1616 denounced to this Holy Office for holding as true the false doctrine....." The reading continued for seventeen paragraphs:.. And, so that you will be more cautious in future, we order that the book 'Dialogue of Galileo Galilei' be prohibited by public edict. We condemn you to formal imprisonment in this Holy Office at our pleasure.' In other words, house arrest.

To me, it is extraordinary that a man of such intellect and genius who could take a radical new viewpoint of the universe could be cowed by the dogma of the ruling church. But in fact, we shouldn't be surprised when we think of the sanctions including burning at the stake which the Inquisition could apply. After all it was Giordano Bruno who was so executed by order of the Inquisition for, amongst other things, '...holding opinions contrary to the Catholic Faith and speaking against it and its ministers'.

Galileo did not set out to deny Scripture but saw science and religion as two sides of the same coin and a matter of human interpretation. He had said 'As the Holy Scriptures and nature equally have their origins in the divine word, the one as given by the Holy Spirit and the other by the observation of the orders of God... 'it seems that none of the natural phenomena can be held in any doubt, or rejected, because of some passages in the Scriptures which in their literal meaning seem to be at variance with it'.

In late 1633, Galileo received permission to move into his own small farmhouse in Arcetri, where he grew blind and died in 1642.

A few dates mark Galileo's rehabilitation. He was reburied in sacred ground at Santa Croce in 1737. He was formally rehabilitated in 1741, when Pope Benedict XIV authorized the publication of Galileo's complete scientific works and in 1835 the 'Dialogue' was removed from the Index of Banned Books.

In 1992, Pope John Paul II set up a special committee to re-examine the Galileo case and the papacy offered an official apology for Galileo's sentence.