

WALKING A FINE LINE BETWEEN SCIENCE AND FAITH

**A Paper presented to the 2019 Shroud Conference in Ancaster, Canada on Thursday 15 August
2019 by Mark Oxley MA(Dubl) MBA**

Abstract

It should not matter to a Christian whether the Shroud of Turin is the genuine burial cloth of Jesus or a mediaeval forgery. For a Christian it bears the image of the crucified Christ, the salvation of mankind. It should not be critically important whether it is a genuine relic of the Crucifixion or not. We are past the age of relics. Of greater importance is what the image on the Shroud represents. The Shroud is an object of both scientific and religious interest. Religious interest is based on the image itself. It is the nature and detail of the image and how it was formed that is of interest to scientists, but there is a danger in combining scientific research with religious belief. When scientific investigation of the Shroud is seen to have religious objectives it loses credibility among secular researchers. Scientific investigation of the Shroud must therefore be seen to be purely scientific in nature – a search for the truth, however uncomfortable that truth might be. This means accepting the hypotheses of Shroud sceptics as being valid contributions towards finding the truth about the image. Those who believe the image to be that of the resurrected Christ and those who see the Shroud as a fake or forgery, as well as those in between who merely find it an object of mystery, should see each other as colleagues and collaborators rather than antagonists in that search for the truth. In May 1998 Pope John Paul II emphasised that the Shroud should be studied without pre-established positions. He urged scientists to act with interior freedom and attentive respect for both scientific methodology and the sensitivities of believers. It is a fine line to walk.

Introduction

My third paper returns to the theme of whether the Shroud is the genuine burial cloth of Jesus or not and asks the questions, are there different approaches to this question from the perspectives of science and faith and should there be different approaches? Indeed can there be different approaches?

To start to address this question it is necessary to provide rigorous definitions of science and faith, in order to clearly differentiate between the two.

Science and the Scientific Method

The Scientific Method was defined in my paper on The Divine Light and the Shroud of Turin in the following terms:

“A method of procedure that has characterized natural science since the 17th century, consisting in systematic observation, measurement, and experiment, and the formulation, testing, and modification of hypotheses.”

Key terms here are “observation”, “measurement” and “experiment”. The word “science” itself is derived from the Latin verb *scire* – “to know”. The Oxford English Reference Dictionary defines science as “a branch of knowledge conducted on objective principles involving the systematised observation of and experiment with phenomena, especially concerned with the material and functions of the physical universe”.¹

Science therefore refers to what can be observed and measured. It consists of knowledge obtained systematically, relating to the physical universe. Specifically it involves objectivity.

Faith

Faith, on the other hand, is defined in the Oxford English Reference Dictionary in several ways, including:

- “complete trust or confidence”.
- “firm belief”.
- “a system of religious belief, belief in religious doctrines, spiritual apprehension of divine truth apart from proof.”²

Rather than being based on observation, measurement and objectivity, faith is based on internal belief, particularly belief of a religious or personal nature that does not require proof for it to be justified. It is subjective rather than objective. It is this aspect of faith that is frequently applied to studies of the Shroud of Turin.

Objectivity

Objectivity is the major difference between a science-based approach to a matter and a faith-based approach. The adjective “objective” is defined as “external to the mind, actually existing, real”.³ However much sincere believers might insist that their faith reflects reality, it is only their personal reality that is involved. A true scientist will consider differing hypotheses and points of view in arriving at the facts. When faith becomes involved objectivity is lost and opposing points of view are seen as dangerous.

This applies very much to the Shroud of Turin. Because of its religious significance many researchers allow their religious beliefs to take priority in their search for the truth about the Shroud. Suggestions or hypotheses that the Shroud is not the genuine burial cloth of Jesus Christ, that rather it is some form of mediaeval forgery, are seen as dangerous and unacceptable. The following are recent quotations from leading Shroud researchers:

“I see that you intend to invite (to the Conference) persons not favourable to the authenticity of the Shroud. I warn all of you that could be dangerous for the Truth and for the Shroud for many reasons.”

“I have some qualms about having any professional sceptic on the conference programme”.

It is particularly with reference to the 1988 radiocarbon dating of the Shroud that objectivity frequently takes second place to personal belief. The purpose of dating the Shroud becomes a question of either proving that it is of first century origin or that it is medieval, depending on one’s beliefs and with the intention of justifying them. There is no scientific detachment. This in turn affects the credibility of scientific examination of the Shroud with the broader scientific community. Research on the Shroud becomes viewed as a field for eccentrics, scientific cranks and religious extremists.

Well might Pope John Paul II have appealed that “the Shroud be studied without pre-established positions that take for granted results that are not such”⁴.

The official announcement of the radiocarbon dating of the Shroud in 1988 is certainly not a study in scientific detachment, as can be seen from the photograph below of some of the scientists involved at the announcement. The date range found by the tests is emphasised with an exclamation mark and the three scientists appear to be challenging the world to take their word for it.



Separation of Belief and Science

With a subject as controversial as the Shroud it becomes extremely difficult to put aside pre-conceptions and to adopt an attitude of impartiality. The Shroud is an item of both scientific and religious interest. The first step in an impartial approach is to determine which facets of the Shroud are the legitimate subject of pure scientific investigation and which aspects have religious significance. This returns to the questions raised in my first paper – what, when, how and why.

The physical nature of the Shroud itself is clearly of purely scientific interest. There is no controversy over this question.

“When” is the big question. When was the Shroud created? It is at this point that faith and science must be separated and objective research emphasised. Faith cannot be allowed to direct scientific enquiry.

“How” is also a question of both scientific and religious significance. My second paper has sought to address this question from a religious perspective. It is in this question that science and faith become most intertwined. The image itself clearly has religious significance but this must somehow be put aside to allow its investigation from a purely scientific point of view.

The fourth question, “why”, clearly lies beyond the realm of science.

It is therefore in the second and third questions that a conflict between science and faith is possible.

The Scientific Revolution

The Scientific Revolution is a term applied to a series of major discoveries and developments that took place over a relatively short period of time in the Middle Ages and which had an impact in particular on established religious and philosophical views. The Scientific Revolution can be said to have started

with the publication of *De revolutionibus orbium coelestium (On the Revolutions of the Heavenly Spheres)* by Nicholas Copernicus in 1543 and to have been completed by Sir Isaac Newton with his *Principia* in 1687.

The resulting revolution in ideas threatened established views on nature, particularly those of the Catholic Church. This resulted in conflict between the opposing viewpoints and opposition by the Church to many of the new ideas and theories. Copernicus proposed that it was the sun that occupied the centre of the universe rather than the earth. Galileo in turn supported this heliocentric view of the universe and argued in his defence that the Bible was not intended to expound scientific theory and where it conflicted with common sense it should be read as allegory.

It has often been suggested that the Church is in perpetual conflict with science. It is more accurate to say that at times in history the Church opposed particular scientific discoveries and theories that it felt challenged its authority and power. In fact the Church has been a major supporter of many sciences and scientists over the centuries and has produced many notable scientists. The Jesuits in particular have been active in scientific discovery and endeavour. They devised modern lunar nomenclature and stellar classification for example.

The Church itself rejects the notion of innate conflict. The First Vatican Council of 1869-1870 declared that "Faith and reason are of mutual help to each other". In his encyclical *Fides et Ratio* Pope John Paul II summarised the Catholic view of the relationship between faith and reason when he wrote:

"Faith and reason are like two wings on which the human spirit rises to the contemplation of the truth; and God has placed in the human heart a desire to know the truth...."⁵

The Pope emphasised that faith and reason are essential together – that faith without reason leads to superstition while reason without faith leads to nihilism and relativism. This leads to an uncomfortable question. When researchers investigate the Shroud without scientific detachment or objectivity are they indulging in some form of sindonic superstition?

To avoid accusations of this nature it is essential that all voices on the Shroud be heard and that all scientific research which has been carried out within the parameters of sound science be taken into account. The result of all such research needs to be subject to full scrutiny and peer review prior to publication. It is of course unavoidable that sensational claims about the Shroud, however unscientific they might be, will always receive wide publicity whereas more routine and less newsworthy results will remain less well-known. That is a fact of life. What is important is that true scientific research on the Shroud remains objective, "without pre-established positions that take for granted results that are not such....(and acting) with interior freedom and attentive respect for both scientific methodology and the sensibilities of believers."⁶

The Future of Scientific Research on the Shroud

Because of the continuing controversy over the date of the Shroud and the results of the 1988 radiocarbon test the need for new tests of this nature is at the forefront of the minds of many researchers. It is almost a point of dogma that until this question is resolved no other research is worthwhile. The barrier to such further testing is seen to be the Church.

Any reluctance by the Church to permit such testing can be put down to three main factors, none of which relate to any perceived "anti-science" bias on the part of the Church:

- From a spiritual perspective it is not necessary that the Shroud be the true burial cloth of Jesus. It is what the image depicts and represents that is of religious and spiritual importance.
- The Church does not want another publicity controversy similar to that surrounding the 1988 dating, as would inevitably be the case in the event of new tests whatever conclusions were reached. From the Church's perspective it is better to leave this question unanswered.
- The Church is undoubtedly concerned about whether a truly unbiased and objective testing process is possible in view of the diametrically opposed views of many scientists on the subject of the Shroud.

Dating the Shroud is not the only potential research project on the Shroud. Although less glamorous, research on the image would be of great scientific value. It is also unlikely to attract the same glare of publicity or controversy over conclusions reached. This topic has been addressed in my second paper. Such research should cover the mechanism of the image formation as well as peculiar and interesting features of the image itself. It could also provide greater insight into the age and nature of the Shroud itself than would be achieved by simply making further efforts to establish a reliable date for the cloth.

Potential Research on the Image

Reference was made in my second paper to the final remarks made by Paolo Di Lazzaro and others in a 2012 paper on how a short and intense burst of directional deep-UV radiation could possibly provide a linen colouration having many peculiar features of the Turin Shroud image. In these remarks the authors stated:

“We are not the conclusion, we are composing pieces of a fascinating and complex scientific puzzle. The enigma of the body image of the Shroud of Turin is still ‘a challenge to our intelligence’”.⁷

This is the opening to further research and study on this subject. It is also an area where faith and science join together. The image itself is physical in nature but its formation mechanism may lie beyond the limits of natural science, where faith would play a role in the design of any research programme.

Other areas of research involving the image could include the following:

- Further medical studies of the injuries shown on the image.
- Further investigation into the yet unconcluded matter of whether or not there are images of coins on the eyes of the facial image.
- Other aspects of the image that are still not fully understood. Are there, for example, images of flowers included in the overall image?

A complete scientific picture of all aspects of the image remains to be completed. This area of research has taken second place over the years since 1988 to the controversy over the dating of the Shroud, and yet it offers much greater scope and opportunity for scientific study. This is certainly an area where faith-based interest in the age of the Shroud has overshadowed the need for rigorous and wide-ranging scientific research on the image itself.

Certain peculiar characteristics of the image, as described by Prof Giulio Fanti in his book *The Shroud of Turin, First Century after Christ*,⁸ merit further study and research:

“The double, front and back, body image of the Man of the Shroud reveals such peculiar characteristics that, until now, modern sciences could not reproduce all together at one time on a single cloth.

Currently it is therefore impossible to explain how the Shroud image has been created. Being considered a relic, it is understandable that someone would talk about a miracle referring to the formation of the image, but obviously, by the side of science, this justification cannot be reasonable. From the scientific point of view, the study of the sheet led to several formulations of hypotheses that try to produce quite reliable, even though not completely satisfactory explanations.”

It is more accurate to say that it is impossible within the limits of established science to explain how the Shroud image has been created. It therefore becomes necessary to invoke faith and to move beyond these limits.

Moving Forward

The Shroud of Turin Research Project (STURP) was set up following the First US Conference of Research on the Shroud of Turin, held at Albuquerque in March 1977. The story of the establishment of STURP is a long and complex one⁹. Without going into detail and certainly without replicating this process, consideration could be given to the establishment of an international Shroud Image Working Group (SIWG) that would be tasked with designing and co-ordinating a research programme on the image, taking into account Prof Fanti’s concern expressed above. This would offer a way forward on Shroud research that could use science and scientific methods in a faith-related research project without any conflict or controversy.

The problem is simply that there is a very fine line between science and faith in studying the Shroud of Turin. It is easy to cross that line and to allow faith to cloud one’s scientific impartiality, or alternatively to use science as an excuse to dismiss the faith and beliefs of others.

Notes

1. The Oxford English Reference Dictionary, 2nd Edition (Oxford University Press, 1996), page 1297.
2. Ibid, page 502.
3. Ibid, page 1002.
4. Pastoral Visit of His Holiness John Paul II to Vercelli and Turin, May 23-24 1998, *Address of His Holiness Pope John Paul II, Sunday 24 May 1998*, Libreria Editrice Vaticana 1998.
5. *Fides et Ratio*, Encyclical Letter of Pope John Paul II, 14 September 1998.
6. Pastoral Visit of His Holiness John Paul II to Vercelli and Turin, May 23-24 1998, *Address of His Holiness Pope John Paul II, Sunday 24 May 1998*, Libreria Editrice Vaticana 1998.
7. P Di Lazzaro, D Murra, A Santoni, E Nichelatti, G Baldacchini, *Shroud-Like Coloration of Linen by Nanosecond Laser Pulses in the Vacuum Ultraviolet*, ENEA (Agenzia Nazionale per le Nuove Tecnologie) Italy 2012.
8. Fanti G, Malfi P, *The Shroud of Turin, First Century after Christ!* (Pan Stanford Publishing, Singapore), pp 19 – 20.
9. The story is told in G D Bracaglia, *Uncovering the Paradox within the Archives of the Holy Shroud Guild* (Holy Shroud Guild, New York 2019), pages 85 – 169.