

Commentary: Science and the Shroud  
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The authenticity of the Shroud is a subject fraught with intense debate. I think in the contemporary context, authentic means it is the burial cloth of Christ. Scientific proof of this hypothesis appears to be beyond reach at the moment. In any case scientific theories are supposed to embrace a number of testable hypotheses. The more tests the theory passes the greater the scientific acceptance. Getting specific for the moment, if the Shroud is authentic for example it should be 2000 years old or so thus the dating of the Shroud was a rather decisive test. Radiocarbon dating wasn't available to us in 1978 because the required sample size for radiocarbon dating was too large and it is a destructive test thus as a venerated object no one was going to cut a large swatch out of the Shroud. Since that time, new techniques have been developed that required only threads of material and that enabled the dating process to move forward. In 1988 a dating of certain threads extracted from the cloth took place at University of Arizona, Oxford in England and at Zurich, Switzerland.

The results were fairly consistent with each other and all indicated a date of medieval origin reasonably consistent with its documented history. There is an ongoing controversy about the date obtained and the possibility that the sample might have been contaminated with medieval cotton. This is not an indictment of the dating labs nor was it just a conjecture by Shroud believers. There appears to be some legitimate reasons to at least review the process and maybe execute a re-dating just to make sure. There is nothing extraordinary about the existence of controversy such as these in scientific investigations. Nevertheless, this is the first step to scientific legitimacy.

In these times we look to science to both shape and affirm our beliefs partly because it has brought us so many wonderful (and sometimes terrible) things. This is in interesting contrast to days long gone past when we looked to scripture and theology for affirmation. But religion is about faith and science is about experimental demonstration and at this time in history there is a great abyss between them.

To my skeptical colleagues I would say that there is no list of "authorized" subjects for scientific investigation. The alternative would constitute a kind of scientific chauvinism similar to the religious prohibitions and persecutions encountered by Galileo for example. Questioning the productive value of such an enterprise lying outside of mainstream science is fair but that really boils down to a value judgment. Besides, much basic science proceeds without regard to long term "value".

Because of the religious connotations of the Shroud, some in the scientific community question the ethics of these investigations however as is well known the study of religious objects per se has value outside of religion. An object may be simultaneously legitimate subject material for in multiple systems of belief. Biblical archeology is no less scientific than conventional archeology because it deals with religious objects. Sometimes I wonder if these criticisms are nothing more than a thinly veiled anti-Christian sentiment or the

expression of agnostic or atheistic views. On the other hand, to my devout friends, I would say do not look to the Shroud for sort of physical affirmation of your faith or expect science to confirm what you already believe (because, as you already suspect, we are a bunch of pagans anyway.). For science of the Shroud to go mainstream requires the attention of historians, art history specialists, archeologists, conservationists and the like and for the Shroud research community to tolerate and embrace discordant views. That is the way science is done. You have to work within the system if you are going to gain its respect. Unless you happen to be a Nobel laureate, speculating about non-existent physics is counterproductive and will engender contempt from the scientific community.

There are different standards of belief for individuals, courtrooms and science to name a few. Putting on my pointy scientist hat for a moment, we are supposed to be hard core skeptics relying on only repeatable scientific evidence to be judged in the courts of scientific inquiry and are not to let speculation nor our predisposed beliefs get in the way of our good judgment. “I don’t believe therefore it cannot be” is as bad as “I believe therefore it is” are dangerous predispositions.

There are many people who believe the Shroud is authentic but proof by use of scientific methods is a whole different thing. For that to happen, the Shroud would have to survive a full blown scientific “inquisition” in the open courtrooms of scientific inquiry. Scientific acceptance involves a slow, self correcting collaborative process by subject experts. As Carl Sagan said (and perhaps others) “extraordinary claims require extraordinary proof”.

Firstly of course it has to be 20 centuries old. If it is then it very definitely has a history before the 14<sup>th</sup> century and interested historians will no doubt have a field day searching for it and many dissertations will be written. The discovery of some secret cache of ancient documents like the Dead Sea Scrolls authenticating its history back to the first century would probably satisfy historical and scriptural authenticity requirements however broad scientific authenticity may well be forever eluded. I cite the obvious. We don’t know what Christ really looked like nor do we have an account of any of his physical features. Although the cloth fully describes the scriptural account of the crucifixion in graphic detail, proof that the cloth actually ensconced the body of Christ escapes definition? We might speculate that at some point the blood (if it is conclusive shown to be blood) will reveal its DNA fingerprint however the blood is too fragmented to reveal this information. We don’t have Christ’s DNA. If we did what would it look like anyway? Would it be proof of His humanity..... or not. These things have all been said before. Given a 2000 year old date, the really vexing issue is accounting for the image in terms of 1<sup>st</sup> century technology and that in my world would be nearly impossible. Even its religious or theological value might be variable depending on which religious group you are a member of i.e. if you’re Catholic it is likely to be important. On the other hand if you are a Baptist you are likely to be an iconoclast, already have all the answers you need and could probably care less

The Shroud has thus far eluded mainstream scientific scrutiny for several reasons; (After all its just a piece of medieval linen with an image on it. How interesting could it be?) It’s

value to mainstream science is limited and the second because of the extremely limited access is there is a paucity of subject material on which to do physical investigations. Given full access to contemporary techniques, the 1978 investigations would pale in significance. So Shroud “science” proceeds in a very unorthodox fashion. Mainstream science does not deal with non-mainstream issues very well. Science usually has paradigms and precursors to guide its path. There are few here.

So to cast the cloth into the domain of mainstream arts and science for the moment it is, at best, of modest archeological and historical interest, perhaps of considerable scriptural/theological interest (although there is no explicit mention of an image in scripture) of interest to the art historians and art technologists and image scientists. That it is a manifestation of as yet a totally unknown “physics of resurrection” is at best pure speculation and at worst an oxymoron. God does whatever he wants whenever he wants for whatever purpose he deems. He has no mandate to render explanations to our hopelessly inadequate intellectual frameworks. These are matters for theologians to deal with.

Lastly, I have of late taken the view that if the Shroud is a 14<sup>th</sup> century creation then it must be accounted for within the technological, historic and social circumstances of that era. This “if, then” proposition leads me to assert, for a number of compelling reasons, that the image is the remnant of a high quality 14<sup>th</sup> century woodprint. I have documented this assertion in an accompanying paper entitled “Probable Origins of a 14<sup>th</sup> Century Shroud Image.