The Relics of Jesus and Eucharistic Miracles: The Significance of Type AB blood (by Kelly P. Kearse)

www.academia.edu/39142967/The Shroud of Turin the Relics of Jesus and Eucharistic Miracles The Significance of Type AB blood?

REVIEW by Mark Thomas Walker

What is the significance of the fact that the apparent bloodstains on three relics allegedly connected with the passion of Jesus (the Shroud of Turin, the Sudarium or facecloth of Oveido and the Tunic of Argenteuil, thought by some to have been the garment worn by Christ on the way to Calvary) have all been classified, after testing, as containing type AB blood; and that the same is also true of various objects resulting from so-called "Eucharistic miracles" involving the reputed transformation of sacramental bread and wine into something that actually looks like flesh and blood?

Any open-minded non-specialist interested in questions like these, arising where science and religion intersect, must be grateful to a blood expert like Kelly Kearse (a high school chemistry teacher with a PhD in Microbiology and Immunology), who is prepared to engage seriously with the issues they raise and to communicate that engagement in a form accessible to the scientifically unqualified.

Dr Kearse is an especially valuable guide, since in a number of writings over the last few years focused primarily on the Turin Shroud (which can be found in the scientific papers section at shroud.com) he has shown himself to be neither a hardened sceptic nor unwilling to apply duly stringent scientific standards to correct the overstatements sometimes made in the other direction, such as, for instance, that science has shown the blood on the Shroud to be human blood. Thus, while he accepts that there is strong evidence for the existence of blood components on the seemingly bloodstained areas of the cloth, he has insisted that the correct scientific conclusion, given what we currently know, cannot safely go beyond affirming the presence of primate blood in those areas — as was indeed stressed, Kearse has reminded us, by the blood chemist Alan Adler himself, one of the leading investigators of the Shroud in the 1980's and 1990's, who knew that the antibodies he was using to probe for human blood on the fibres of the linen could also react in a similar way to the blood of certain other primate species.

More directly relevant to the topic of his latest paper, Kearse has argued elsewhere (oddly, not so explicitly here) that it is a gross over-simplification to dismiss all AB typings of aged blood as scientifically insignificant on the grounds that blood naturally degrades in such a way as to over-present as AB. But he has also painstakingly explained how there are complex problems besetting attempts reliably to "serotype" samples of old blood. At a minimum, immunological identification, using antibodies to recognize the antigens present in different blood types, cannot be reliable unless control antibodies are used to ensure "that antibody binding is specific, that antibodies in general do not simply stick to the sample in a non-specific manner". Also steps must be taken to avoid false positives owing to the fact that the molecules expressed on A and B type blood cells are also present in bacteria, fungi, insects and other organisms – which are particularly likely to contaminate ancient samples – creating the possibility that, as Kearse puts it, "the samples test positive for AB without any blood cells even being present."

With this in mind, he argues that only the Shroud and the Sudarium appear to have been blood typed with due controls and some attention to the exclusion of false positives, there being not enough information about the testing on the Tunic to warrant in its case more than a verdict of "undetermined" blood type. Similarly, reports on blood typing of the supposedly miraculous Eucharistic objects are "often limited in their presentation of data, making them difficult to track to the original source"; and even when (as in the case of the 8th century "miracle of Lanciano") the tests are more fully reported in a scientific journal, in no case is there evidence that "control antibodies were used to demonstrate...that anti-body binding was specific" or that efforts were made to exclude the possibility of "simple contamination with bacteria or other organisms that express AB molecules". So nothing here "can be used to augment a claim for any relationship to the Shroud".

As for some supposed theological significance of AB type blood (the universal recipient because able to receive safely transfusions of all blood types) being suited to symbolize Christ receiving all who come to him, Kearse notes that one might equally assert that type O (the universal donor) would be a more fitting expression of the fact that the Saviour gave his blood to redeem whomever will accept him. "Such musings", he rightly observes, "merely detract from the main point: that Christ in his living body offered himself as a sacrifice for all". To which one might add that any suggestion of the religious appropriateness of ascribing AB blood to Jesus can only sharpen suspicions about the scientific soundness of tests supporting that ascription (unless, perhaps, counterbalanced

by evidence suggesting the greater intuitive appeal of an O type attribution, which might neutralize a charge of confirmation bias).

What, then, are we to make of the remaining scientifically respectable blood type connection suggested by tests on the Shroud and the Sudarium? Here Kearse again sounds a cautious note, reminding us that even if the bloodstains on the two cloths are of the same blood type, this does "not ensure they originated from the same individual". He also points out that none of the immunological findings for these artifacts have been published in peer-reviewed scientific journals, thus, he suggests, denying them the credibility they might have gained from surviving a certain level of initial, external scientific scrutiny.

On the first point, though, Kearse might have acknowledged more forcefully that a piece of forensic evidence can be scientifically valuable even though it stops well short of "ensuring" or "proving" a given conclusion. Surprisingly, he only once indicates in this paper, and then very much *en passant*, that AB is by some margin the rarest blood type (belonging to roughly only 4% of human beings). Pending production of the sort of convincing DNA evidence identifying a single individual as the source of the blood on the two cloths, which he has repeatedly warned is difficult to find in ancient, degraded and contaminated specimens, this sort of otherwise significantly unlikely blood type link in a context displaying further evidences of connection (the congruent blood patterns, and certain promising chemical and mineralogical overlaps) can surely contribute to the sort of imposing bundle of probabilities Yves Delage invoked long ago when defending the authenticity of the Shroud.

As for the importance of peer-review, let's just say it is unclear why Kearse's own body of recent work cannot be taken, in effect, to have provided an adequate substitute for that in the case of the immunological research of Heller, Adler, Baima Bollone and others, which he has so carefully analyzed and found to be worthy enough to merit follow up by further serious investigation.
