

SOME RECENT PUBLICATIONS

A recent volume of the American Chemical Society, *ACS Advances in Chemistry no. 205, Archaeological Chemistry III*, ed. Joseph B. Lambert, 1984, contains no less than four papers of considerable relevance to Shroud studies:

E. J. Jumper, A. D. Adler, J. P. Jackson, S. F. Pellicori, J. H. Heller and J. R. Druzik - "A Comprehensive Examination of the Various Stains and Images on the Shroud of Turin"

This thirty page paper represents by far the best appraisal so far of STURP's 1978 testing, and is particularly valuable for its discussion of the Shroud's various stains and images. According to the abstract:

"The conclusions are that the body image is made up of yellowed surface fibrils of the linen that are at more advanced stages of degradation than the non-image linen. The chromophore is a conjugated carbonyl. No evidence was found in the body image of any added substances that could have contributed to the yellow colour of the fibrils that form the image. The blood images on the cloth are made of blood. The data, taken together, do not support the hypothesis that the images on the Shroud are due to an artist".

Giles F. Carter "Formation of the Image on the Shroud of Turin by X-rays: a New Hypothesis"

This twenty-one page paper appears strikingly in accord with some of the insights of our own Dr. Allan Mills of Leicester University. The abstract reads:

"Intensive study of the Shroud of Turin by previous investigators has shown that the image very probably was not formed by painting, dyeing, rubbing or staining. Indeed no hypothesis satisfactorily explains all attributes of the image, such as its inherent three-dimensional information or its shallow depth. The new hypothesis suggests that X-rays emanated from the elements sodium, silicon, phosphorus, sulfur, chlorine, potassium and calcium in the surface of the skin. These long-wave X-rays which are easily absorbed by air, apparently account for most attributes of the body image. Calculations show the X-ray image would be moderately, but not severely, out of focus. Iron, which is present over the entire Shroud in varying concentrations, catalyzes the image formation by X-rays or by scorching."

R.E. Taylor, D.J. Donahue, T.H. Zabel, P.E. Damon and A.J.T. Jull, "Radiocarbon Dating by Particle Accelerators: An Archaeological Perspective"

All but one of the authors of this twenty-two page paper are from the University of Arizona, Tucson, where has been developed the National Science Foundation Regional Accelerator Facility, one of the radiocarbon dating units which could be used to date the Shroud. The paper explains the principles, and describes some recent successes in small sample radiocarbon dating.

R.J. McNeil "Scanning Auger Microscopy for Dating of Manuscript Inks"

Roderick McNeil works with the Bio/Environmental Research Group, and is a specialist in scanning auger microscopy (SAM), a highly sophisticated method which offers considerable possibilities for any future Shroud testing. McNeil's application of the technique to the dating of ancient manuscript inks promises an opportunity to cross-check Dr. Walter McCrone's well-known "de-bunking" of Yale University's "Vinland Map" *Shroud Spectrum* no. 12, Indiana Center for Shroud Studies, R.3, Box 557, Nashville, Indiana 47448 U.S.A.

The indefatigable Dorothy Crispino, editor/publisher of *Shroud Spectrum*, continues to keep up her high standards with this latest issue. This includes a fascinating article by Fr. Peter Rinaldi "When America First Heard about the Shroud", describing the reaction he received to his first-ever U.S. article on the Shroud, published in *The Sign* in June 1934. And particularly valuable is this issue's main article, the first of three by Don Luigi Fossati, S.D.B., "Copies of the Holy Shroud", providing a catalogue, complete with inscriptions and bibliography, of the various artists' copies of the Shroud, dating back five centuries, preserved in churches and cathedrals throughout Europe. The final main article is by Mons. Pietro Savio "The Arrangement of the Sindon when it enfolded the Body of Christ". Yet again members are warmly recommended to take out an annual subscription for *Shroud Spectrum*, price 18 dollars, available direct from the publishing address. International money orders can be arranged through any bank.

Life Magazine, February 1984, article "Is this What Christ Really Looked Like?"

This strikingly illustrated article describes the work of English artist Curtis Hooper, currently living in Princeton, New Jersey, with particular reference to his creation of "the most accurate depiction ever of Jesus Christ". Inevitably Hooper's painting is based on the Shroud, and although many may feel that they are better served by the Shroud without Hooper's rather plastic-looking interpretation, it has served as a source of inspiration for ACCSST, the Shroud Centre in Atlanta Georgia. ACCSST, who run a thriving permanent exhibition of the Shroud, have commissioned Georgia's only forensic sculptor, Thomas Goyne, to create "a life-sized sculpture of the head of the Man of the Shroud based on the best data currently available from the scientific community."

ACCSST have appealed for anyone with data that might aid Goyne in his task to get in contact. ACCSST's address is 2407 Cascade Road S.W., Atlanta, Georgia 30311.

Rodney Hoare, *A Piece of Cloth: The Turin Shroud Investigated*, Aquarian Press, 1984, price £7.95

B.S.T.S. member Rodney Hoare has somewhat unorthodox views on the Shroud, and his latest book promises to be controversial. A review copy has not been received in time for this *Newsletter*, but according to the publishers' blurb "Rodney Hoare asks us to forget all we have heard or read about the Turin Shroud and approach his new book *A Piece of Cloth* with an open mind ... he summarizes the hard evidence concerning the physical nature of the Shroud and puts forward an original hypothesis of how the image on it was formed. In the second part of the book this evidence is related to what is known of Jesus and challenges traditional opinion: how reliable are the gospel narratives? Do the stains on the Shroud corroborate or modify what is known of Jesus's death from the gospels? What follows from a rational explanation of the Resurrection? Does the Shroud hold a message for us all?"

Frederick T. Zugibe "Death by Crucifixion", *Canadian Society of Forensic Science Journal*, vol. 17, no. 1 (1984)

This thirteen page paper derives from a lecture given by Dr. Zugibe, Chief Medical Examiner, Rockland County, New York, to the 35th. Annual Meeting of the American Academy of Forensic Sciences, Cincinnati, Ohio. Dr. Zugibe notes that due to "religious fervour" considerable misunderstandings have arisen concerning the cause of death in crucifixions. According to the abstract of his paper "The most widely held theory in this regard is the asphyxial or suffocation theory which indicates that the position on the cross is incompatible with breathing. In an endeavour to resolve this controversy, meticulous experimentation was conducted, which included blood gases, ear oximetry, Douglas bag studies, vital capacities, blood chemistries, EEG monitoring, blood pressures, auscultatory studies, pulse rates, objective and subjective observations, etc., on numerous volunteers suspended on a very accurate cross. The results of these studies afforded the conclusion that the cause of death was not due to asphyxiation but shock. Other significant theories are discussed."