

## ANSWER TO THE ARTICLE

### “A BPA APPROACH TO THE SHROUD OF TURIN”

by Matteo Borrini and Luigi Garlaschelli

The article presents numerous formal and conceptual errors that deprive it of scientific credibility.

First of all, neither author is a forensic physician, so they lack the experience and knowledge necessary to successfully deal with any kind of investigation with human blood stains.

The “experiments” have been conducted on a living and healthy human being, without traumatic wounds of any kind and with a dummy vaguely reminiscent of a human trunk. But if it is not done with a living human being who has suffered the same wounds and the same chronology as the Man of the Shroud, nor with a corpse that meets the same requirements, then the experiment does NOT reproduce, not even approximately, the circumstances in which the blood stains originated.

Moreover, the voluntary subject on which the experiment was performed had no hair on the skin of the forearms, at least this is what can be seen in the photographs of the article, while the Man of the Shroud maybe had it or not. We do not have scientific data on this point. But if he had them, the capillary stems are obstacles to the passage of any fluid, modifying its trajectory. This fact was not taken into consideration.

The experiment was conducted with human blood from a donor, anticoagulated and kept cold, and flows through the needle of a cannula, while the “volunteer” is immobile. But he does not have living blood flowing from an open wound and a pulsating heartbeat, and he is not even a person moving, fighting for a restless and agitated breathing. It is clearly seen that such agitated movement to achieve a breath while nailed to a cross must have happened in the case of the Man of the Shroud.

The physical qualities of anticoagulated blood are very different from those of non-anticoagulated live blood, in particular its viscosity and surface tension, that is to say that its behaviour as a fluid is very different in both cases.

On the other hand, the physical qualities of anticoagulated blood are also very different from those of cadaveric blood. Which, in turn, is very different from living blood.

But also the blood of the Man of the Shroud was pathological, due to the bleeding suffered, and its pH was acid, a consequence of asphyxiation, so its behavior is also very different from that of live blood and, allow me to say this, healthy.

If this were not enough, from the wound on the side there was not only a cadaveric blood flow, but also post-mortem blood clots, pleural fluid, pericardial fluid (both following the scourging), and the fluid of pulmonary edema, due to asphyxiation. All these fluids are unlikely to come out mixed homogeneously. Most likely, they did it in a heterogeneous way. All this was not reproduced in the “experiment”.

The general public, and also many “experts”, believe that human corpses do not bleed. This is not true. When there are deep wounds, the cadavers have post-mortem hemorrhages, especially if moved, and the body of the Man of the Shroud was moved and manipulated, then bled profusely from his wounds and his natural orifices. And that blood was cadaveric blood, not living blood, not even chemically anticoagulated blood.

The “blood belt” was not produced by the flow of blood between the corpse and the cloth of the Shroud, but while placing the body on the linen, the corpse bled and released a trail of blood that perfectly reproduces the relative path between the corpse and the textile material that absorbed this blood. This fact, too, was not taken into consideration.

## CONCLUSIONS

The experiment does NOT even remotely reproduce the conditions in which the blood stains of the Turin Shroud have occurred. In these circumstances, the conclusions of the article are TOTALLY devoid of scientific value.

The authors of the article, given their inexperience and lack of the minimum necessary knowledge, have committed serious errors in planning and interpreting the results of their “experiment”.

The article is not suitable for publication in a specialised scientific journal; it is assumed that people who have assessed the suitability of the article should have the necessary knowledge and experience. In the case in question, either they do not possess it, or have ignored it for unknown reasons.

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Cartagena, (Spain), 2018-07-18