

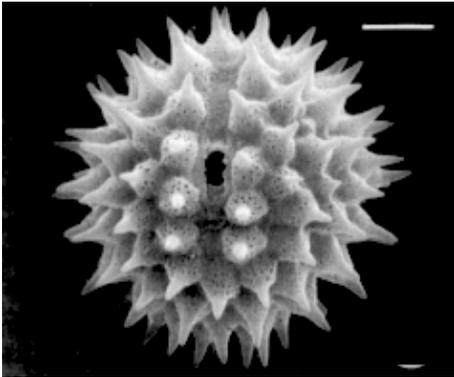
## **PUBLICATIONS (1)**

### **POLLEN ON THE SHROUD OF TURIN: THE PROBABLE TRACE LEFT BY ANOINTING AND EMBALMING Marzia Boi, University of the Balearics**

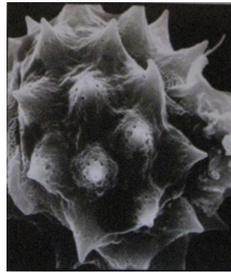
Dr Marzia Boi specialises in forensic palynology, with several research papers to her name and a particular interest in the Shroud. In this paper she attempts to relate the pollens found on the Shroud to ancient funeral ointments, clearly hoping to bolster the evidence for its authenticity. While her science is excellent, her premises are flawed, and her inferences tenuous, as there is no other evidence for such ointments on the Shroud, scientifically, archaeologically, biblically or historically.

After a quick review of various funeral practices unrelated to First Century Judea, Dr Boi begins by identifying the four commonest varieties of pollen grain found on the Shroud, namely Pistacia, Helichrysum, Ferula and Cistus. In this, however, she differs from everybody else who has commented on or studied the Shroud, and, in the absence of the opportunity to study the original samples, it is surely not a firm basis upon which to build a hypothesis. Max Frei found Pistacia and Cistus (and narrowed them to individual species, which lacks credibility and casts a shadow over his identification) but not Helichrysum nor Ferula. Boi's identifications are based not on actual Shroud pollen but on Scanning Electron Microscope images from control samples, many of which Frei had collected himself on field trips. If these are considered misidentified, then one wonders how, since Frei must have seen the plant from which they came as well as the pollen itself, and Helichrysum, the sunflower, looks very different from Gundelia, a desert thistle.

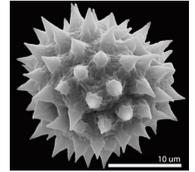
Dr Boi takes Frei's Gundelia as an example, and compares a description of its pollen with that of Helichrysum. They are both tricolporate, and differ mainly in size, Gundelia being  $48\mu\text{m}$  in diameter



Gundelia



Frei's control sample



Helichrysum

The scale bars represent 10 $\mu$ m. Frei's image has no scale.

and Helichrysum about half that. Frei's pollen photos have no scale, so it is difficult to compare them with either with any exactitude. The only other easily observable difference is in the spines. They are conical, but in Gundelia have 'sub-glabose bases', while in Helichrysum they are 'not swollen in the base.' Readers are invited to compare the Frei sample above with the photos on either side and make up their own minds.

In the same way, however, Boi interprets other of Frei's findings favourably towards her 'embalming' hypothesis although in each case, we must remember, she compared her control pollen with Frei's control pollen, not with the samples extracted from the Shroud, and the control pollen was extracted from flowering plants. Could Max Frei really not tell the difference?



Gundelia (left)  
Helichrysum (right)



Ridolfia (left)  
Ferula (right)

Having established the identity of the pollen on the Shroud to her satisfaction, Dr Boi then explains how the plants which bear it were used in the first century, taking the evidence of Pliny the Elder and Dioscorides as her sources. However she does not distinguish between Roman and Jewish burial practices, which leads to historical discrepancy, and more importantly, does not distinguish between treatments for the living and treatments for the dead, which is very unbiblical.

Helichrysum, we learn, had 'healing' and 'anti-inflammatory' properties, 'combating the wound of corruption'. It is also 'hypnotic, sedative, narcotic and psychotropic.'

Cistus was used 'to treat wounds and as a pain reliever' and in poultices 'to heal wounds and burns.'

Ferula was used 'to heal wounds.'

Pistacia was used 'to eliminate ulcers, sores and wounds', shows 'properties of wound and bone healing' and is used 'to combat tiredness.'

There are other properties, which I shall come to in a moment, but as these stand, they are clearly remedies for the living, not the dead. Those who believe Christ did not die on the cross, but was buried alive, to be rescued later, will no doubt find considerable support from this information.

However, these plants were also used in funerals, but in a different way. Helichrysum was a plant 'with which the idols are crowned.' Cistus

kept 'the corpse from smelling unpleasant'. Ferula was 'burned in temples during burial rituals', and Pistacia was 'burned in burials to disguise unpleasant smells'. So far, so good, but Boi goes on to say that 'the whole set of sindonic entomogenous species suggests the use of botanical products that were widely used in ancient funeral and burial rituals, whose purpose in embalming the body was to delay decomposition, as well as to make burials smell less unpleasant.' However true this may be of the Egyptians and Romans, it is most unlikely to have been a Jewish practice, as in almost every single example discovered, the Jews apparently wanted their dead to decompose rapidly, so that their bones could be transferred to an ossuary. Later on Boi speculates that 'in accordance with ancient practices, the burial cloth of the Shroud was treated with Helichrysum oil, probably in an effort to protect the textile fibres, as documented in ancient texts.' This shows a lamentable lack of discrimination between different burial practices. The Jews made no effort to protect their shrouds, barely any of which have survived, in contrast to the many Egyptian and Roman ones.

Curiously, support for her hypothesis that the body of Jesus was elaborately anointed with substances whose purposes were primarily either for healing or preservation, neither of which has biblical or archaeological credibility, is wholly missing from the various sources she references in this section. Maurice Lamm does not say that criminals should receive the same respect as honest people, he says that mourning should be withheld from apostates, 'spiteful sinners' and executed criminals such as murderers.<sup>1</sup> Daniel-Rops does not say that ointment (the hundred pounds of myrrh and aloes, which he thinks is equivalent to thirty pounds today) was used for 'purification, healing and disinfection of the air.' In fact he says: "It has been presumed that the thirty pounds of spices were used for embalming but it is doubtful whether myrrh or aloes in fact had the requisite properties. [...] That certainly was not done. It

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<sup>1</sup> Maurice Lamm, *The Jewish Way of Death and Mourning*, Jonathan David, NY, 2000

seems more likely that these spices were offered as a tribute of respect to the dead, rather as we send flowers.”<sup>2</sup>

One of the best archaeological reviews of Jewish burial practices at the time of Jesus is Rachel Hachlili’s ‘Jewish Funerary Customs’.<sup>3</sup> She reviews the evidence of the numerous cooking utensils and unguentaria, and agrees that they may have contained liquids to ‘wash, rinse or anoint the deceased.’ The reason for the anointing, however, was not for healing or preservation. Several possible reasons are suggested, including “that the liquid contained in the unguentaria could help decompose the body”, which is not only exactly the opposite of Dr Boi’s contention, but in keeping with the known practice of collecting the bones and putting them in an ossuary after the flesh had rotted away.

Dr Boi finishes her argument by suggesting that the cinnabar found by Walter McCrone in 1978, but largely repudiated by the STuRP team, might have been “sprinkled on the body alongside the ointments at the time of burial, which was a normal practice in ancient times, in an attempt to preserve funeral artefacts.” This is extremely far-fetched. It is not wise to extrapolate the burial practices of particular cultures across the whole field of funerary arrangements, unless archaeological evidence justifies it, which in this case it doesn’t.

All in all it has to be said that the word ‘probable’ in the title of this paper is unjustified, and even ‘possible’ seems rather optimistic when the evidence is properly examined. Nevertheless, Dr Boi has recognised that a proper identification of the pollen found on the Shroud and a multidisciplinary exploration of its meaning could lead to a better understanding of the provenance of the cloth as a whole.



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<sup>2</sup> Daniel-Rops, *Jesus in his Time*, Eyre & Spottiswood, 1955

<sup>3</sup> Rachel Hachlili, *Jewish Funerary Customs, Practices and Rites in the Second Temple Period*, Brill Academic, 2004