

Some time ago there was a discussion about Ray Rogers' citation of Pliny the Elder, and whether or not saponaria (soapwort) was used in antiquity to bleach linen. I have come across the following references to Pliny, to soapwort and to natron which was also used for bleaching. The latter was, I believe, found among Riggi's dusts from the Shroud.

William Meacham

PLINY THE ELDER. *The Natural History*> Chap. 79.--*The Wild Poppy Called Heraclium, Or Aphron: Four Remedies. Diacodion.*

“There is another kind of wild poppy, known as ‘heraclion’ [p. 4279] by some persons, and as ‘aphron’ by others. The leaves of it, when seen from a distance, have all the appearance of sparrows; the root lies on the surface of the ground, and the seed has exactly the colour of foam. This plant is used for the purpose of bleaching linen cloths in summer.”

“Bleaching” [in] *Encyclopedia Britannica*, Edinburgh, 1824. page 321.

“Pliny mentions particularly the struthium as much used for bleaching in Greece. ... Dr Sibthorp's conjecture that the struthium of the Ancients was the saponaria officinalis, a plant common in Greece, is certainly more probable.”

DIOSCORIDES (first century AD) gave in Greek a good description of how lanolin was prepared (“Wool-Fat and Methods for Obtaining It” *Journal of the Society for Chemical Industry*. W.H.

LANGBECK, April 1890):

“Wool-fat is called the grease out of filth of new shorn wool. You will prepare it in this manner: Having taken sweet, newly shorn wool, not treated with soap wort (*Saponaria officinalis*), wash it in hot water, at the same time squeezing out...”

J. H. M. POPPE, *History Of Technology*. 1853-54.

“Even the ancients did not convert the shorn wool into thread without preparing it first. It had first to be cleansed of impurities and dust. ...For washing the wool the ancients used a kind of soapwort (struthium).”

“Textiles” by GILLIAN VOGELSAND-EASTWOOD [in] *Ancient Egyptian Materials And Technology*. PAUL T. WILSON, IAN SHAW. 2000. page 284.

“During the Dynastic period, the Egyptians were able to use various natural detergents such as natron (a natural soda) potash, and the plant soapwort (*saponaria officinalis*).”

“Ancient Egypt: Colouring Fabrics And Other Materials” [in] *An Introduction To The History And Culture Of Pharaonic Egypt*. By ANDRÉ DOLLINGER.

<http://www.reshafim.org.il/ad/egypt/index.html>

“Fine linen, worn by the rich, was seemingly bleached. First the wet cloth was rubbed with natron, then it was spread on a stone slab, beaten with a wooden club, and rinsed. Letting it dry in the hot Mediterranean sun had a bleaching effect.”

“Industries Of The Near East And Europe In Prehistory”. By JOAN ALLGROVE-MCDOWELL.[in] *The Cambridge History Of Western Textiles, vol. I*. DAVID JENKINS. 2003. page 36.

“Egyptians used natron and potash for bleaching. Saffron believed to be added to keep lice at bay. It has been found on a cloth of the 12th dynasty.”