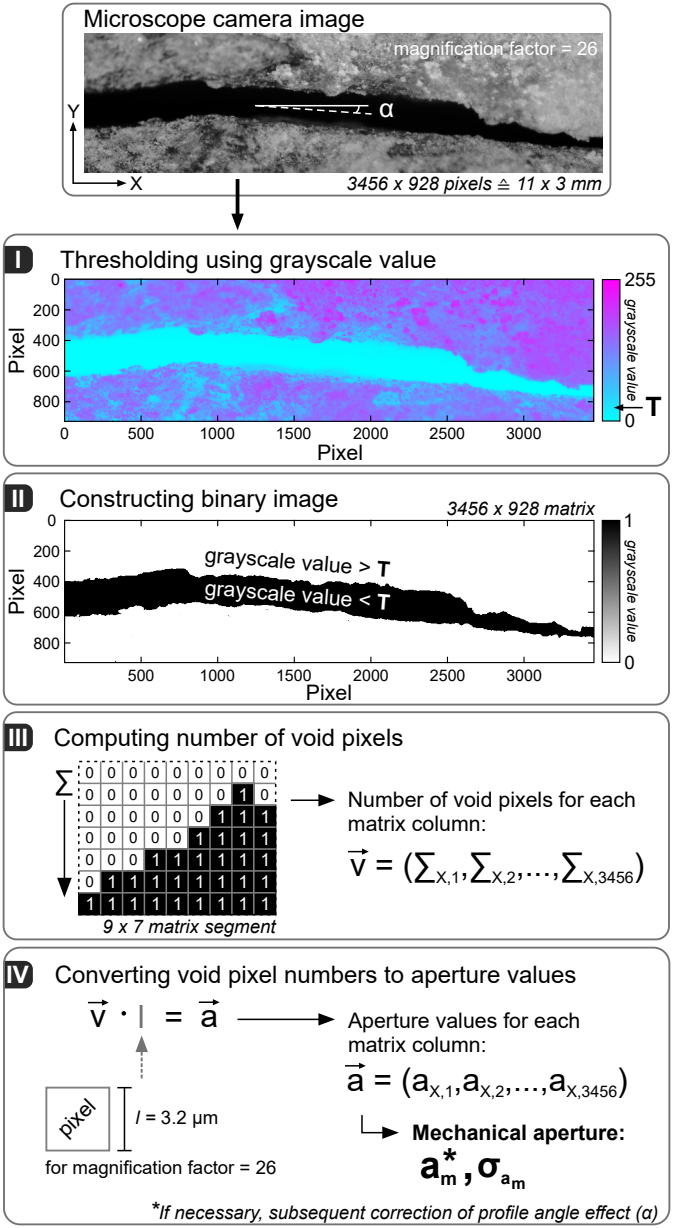
Microscope camera image
magnification factor = 26
α
Y
X
3456 x 928 pixels ≙ 11 x 3 mm
I
Thresholding using grayscale value
Pixel
grayscale value
255
0
T
II
Constructing binary image
3456 x 928 matrix
grayscale value > T
grayscale value < T
1
III
Computing number of void pixels
9 x 7 matrix segment
Number of void pixels for each matrix column:
$\vec{v} = (\sum_{X,1}, \sum_{X,2}, \ldots, \sum_{X,3456})$
IV
Converting void pixel numbers to aperture values
$\vec{v} \cdot | = \vec{a}$
Aperture values for each matrix column:
$\vec{a} = (a_{X,1}, a_{X,2}, \ldots, a_{X,3456})$
pixel
l = 3.2 µm
for magnification factor = 26
Mechanical aperture:
a_m^*, σ_{a_m}
*If necessary, subsequent correction of profile angle effect (α)