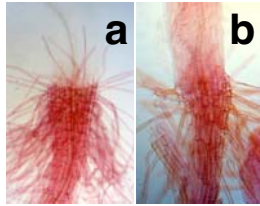
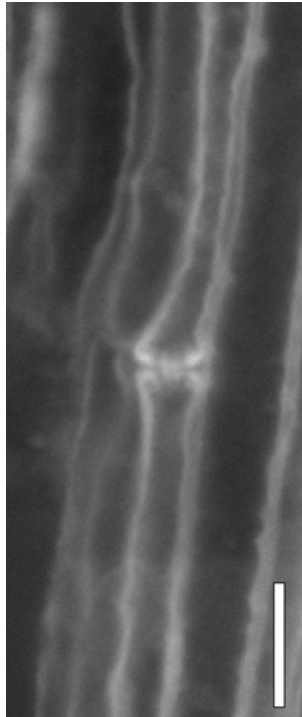


Supplemental Data Truernit et al. (2008) High-resolution whole-mount imaging of three-dimensional tissue organisation and gene expression enables the study of phloem development and structure in *Arabidopsis*.



Supplemental Figure 1. Treatment with hot ethanol increases stain penetration into above ground organs.

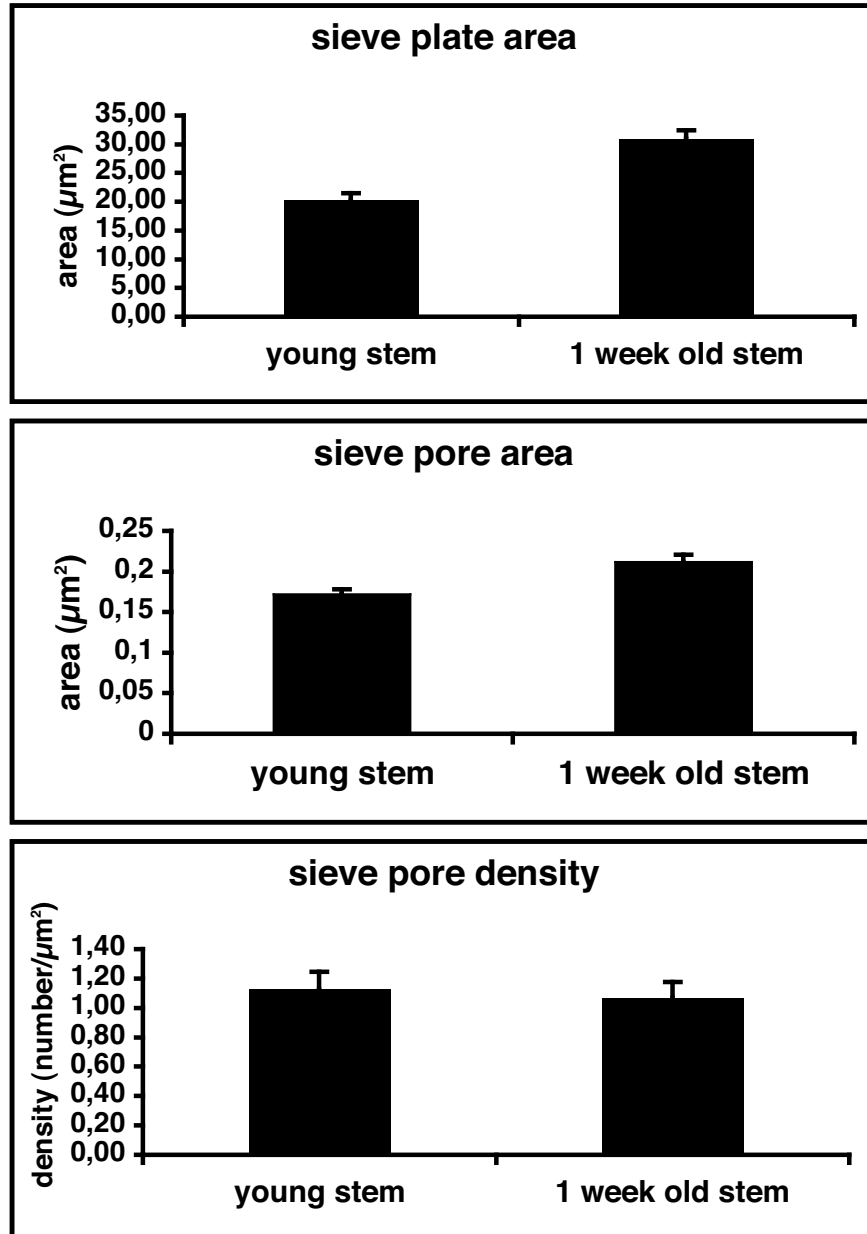
Shown is the root hypocotyl junction (collar) of mPS-PI stained seedlings without **(A)** and with **(B)** additional hot ethanol treatment. While the red stain is uniformly distributed in **(B)**, only the root is stained in **(A)**.



Supplemental Figure 2. Sieve plate in longitudinal optical section.

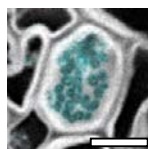
Longitudinal optical section through two sieve elements showing a sieve plate at the junction between the cells.

Scale bar = 5 μm .



Supplemental Figure 3. Parameters of sieve plates in 2 days old and 1 week old stems.

Average sieve plate area, sieve pore area, and sieve pore density in 2 days old (young) and 1 week old stems. Error bars show standard errors of the mean.



Supplemental Figure 4. Sieve plate with callose.

Overlay image of an aniline blue and mPS-PI stained sieve plate. Aniline blue fluorescence indicating the presence of callose is shown in blue.

Scale bar = 5 μm .