Additional file 1, Paint reconstructions:

The role of smalt in complex pigment mixtures in Rembrandt’s *Homer* 1663: combining MA-XRF imaging, microanalysis, paint reconstructions and OCT

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**Figure S1**
Series of paint reconstructions of smalt mixtures based on sample x05 from Homer’s cap (50 vol% smalt/glass, 5 vol% red earth, 5 vol% yellow earth, 20 vol% bone black, 20 vol% yellow lake), with from left to right: colorless potash glass (0 wt% CoO), 2.66 wt% CoO smalt, and 4 wt% CoO smalt, applied on white and black tiles
Figure S2
Series of paint reconstructions of smalt mixtures based on sample x06 from Homer’s cap (60 vol% smalt/glass, 10 vol% red earth, 10 vol% yellow earth, 10 vol% bone black, 10 vol% yellow lake), with from left to right: colorless potash glass (0 wt% CoO), 2.66 wt% CoO smalt, and 4 wt% CoO smalt, applied on white and black tiles.
Figure S3
Series of paint reconstructions of smalt mixtures based on sample x56 from Homer’s cloak (50 vol% smalt/glass, 15 vol% red earth, 15 vol% yellow earth, 5 vol% bone black, 10 vol% yellow lake, 5 vol% red lake), with from left to right: colorless potash glass (0 wt% CoO), 2.66 wt% CoO smalt, and 4 wt% CoO smalt, applied on white and black tiles.
Figure S4

Series of paint reconstructions of smalt mixtures based on sample x57 from Homer’s cloak (55 vol% smalt/glass, 20 vol% red earth, 20 vol% yellow earth, 5 vol% bone black), with from left to right: colorless potash glass (0 wt% CoO), 2.66 wt% CoO smalt, and 4 wt% CoO smalt, applied on white and black tiles.
**Figure S5**

Series of paint reconstructions of smalt mixtures based on sample x34 from Homer’s belt (78 vol% smalt/glass, 10 vol% red earth, 10 vol% yellow earth, 2 vol% bone black), with from left to right: colorless potash glass (0 wt% CoO), 2.66 wt% CoO smalt, and 4 wt% CoO smalt, applied on white and black tiles.
Figure S6
Series of paint reconstructions of smalt mixtures based on sample x27 from the background (5 vol% smalt/glass, 10 vol% red earth, 10 vol% yellow earth, 10 vol% bone black, 40 vol% yellow lake, 10 vol% red lake, 15 vol% Kassel earth), with from left to right: colorless potash glass (0 wt% CoO), 2.66 wt% CoO smalt, and 4 wt% CoO smalt, applied on white and black tiles.
Figure S7
Paint films of pure smalt, from left to right: 2.66 wt% CoO smalt, and 4 wt% CoO smalt, applied on white and black tiles
Figure S8
Paint films of pure red earth, applied on white and black tiles

Figure S9
Paint films of pure yellow earth, applied on white and black tiles
Figure S10
Paint films of pure Kassel earth, applied on white and black tiles

Figure S11
Paint films of pure madder, applied on white and black tiles