

Paint sample form: transcription and additions



Cross-section: **MH0147_x05**

Rembrandt, Susanna, Royal Picture Gallery Mauritshuis, The Hague, inv. no. 147

From 2009-2012 as part of The Rembrandt Database project, the original paint sample form was transcribed and translated into English by Thamar Weidema, Rembrandt Database associate. The paint sample was re-examined under the light microscope by Annelies van Loon, Paintings Research Scientist Mauritshuis. Information about the pigment composition and paint build-up, along with new insights and results of SEM-EDX and other analysis (where performed), were added to this transcribed sample form.

Light microscopic investigation of paint layers

Sample: MH0147_x05
Researcher(s): Petria Noble
Sample date: 27 March 2002
Sample location: upper right background, in spandrel on original panel; probably paint from added strip is on top
Location/area type: background
Location/area color: black / brown
Co-ordinates: 4.7 cm from right, 1.2 cm from top
Reason(s) for sampling: comparison of build up with that of added strip
SEM-EDX analysis: yes (Annelies van Loon, FOM-AMOLF 2002)
Related samples: MH0147_x03, MH0147_x04, MH0147_x06, MH0147_x14

Description of paint build-up, described per layer

	Function	Color	Pigments	Paint defects	Remarks
1	ground		chalk [EDX: Ca]; dispersed lead [EDX: Pb]		shows strong fluorescence in UV
2	imprimatura / priming	beige	lead white [EDX: Pb]; chalk [EDX: Ca]; red, yellow and brown earths [Si, Al, Fe, Mn analyzed in overall layer with EDX]		shows no fluorescence in UV
3	ground (from added strip)	grey	large and small lumps of lead white [EDX: Pb]; a lot of fine (lamp?) black; little bone black; little carbon (charcoal?) black; little smalt [Si, K, Co, Fe, As, Al, Ni]; silica particles [Si]; brownish organic lumps [saponified areas?]; bright red (earth?)		this layer appears to be the ground layer of the added strip, similar to layer 2 in sample MH0147_x03, layer 1 in x04, layer 1 in x09 and layer 1 in x11; very heterogeneous layer; the bottom part of the layer (3a) seems to have a slightly different composition; large bone black particles from layer 5 sink in this layer
4	surface paint layer: background paint (from added strip)	black / brown	a lot of large and small particles of bone black [EDX: Ca, P, Mg]; splintery black particles (charcoal?); a little fine red and yellow (earth?); [dispersed lead (EDX: Pb)]		binding medium is fluorescent; no distinct interface with layer 3; compares well to layer 2 in x04
5	varnish				shows strong fluorescence in UV; several varnish layers visible in UV