**Supplementary Material A**

Images and Details of Other Oiled Paper Sketches

|  |  |  |
| --- | --- | --- |
| *Portrait of Geup Yun*  18th Century  Unknown  Color on Oiled paper  38.3cm × 33.5cm  Front and Back |  |  |
| *Portrait of Bong Han Hong*  18th Century  Unknown  Color on Oiled paper  47.1cm × 32.8cm  Front and Back |  |  |
| *Portrait of Jeong Im*  1749  Hui Su Im  Color on Oiled paper  31.3cm × 22.0cm  Front and Back  (The back image appears distorted because the sketch is bound into an album.) |  |  |

*Note.* High resolution images of *Portrait of Geup Yun* and *Portrait of Bong Han Hong* provided by the National Museum of Korea. Other data and images from W. B. Lee and H. J. Cho, *Joseon Portraits III*, p. 107, 123, 93. All images used with permission. Further reproduction of images is prohibited.

**Supplementary Material B**

Pigment Analysis for *Portrait of Yi Bok Shin* Sketch 2

|  |  |
| --- | --- |
| *Jeonchae* | *Baechae* |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Number | Area Examined | Colour | XRF Results (Elements with greater than 1,000 PPM) | Microscopic Image | Pigment Identified |
| 1 | Paper | - | Ca, Mg |  | - |
| 1b | Paper | - | Ca |  | - |
| 2 | *Samo* | Black | Si, Ca, Al, Mg |  | Plant oil soot (ink) (organic) |
| 2b | *Samo* | - | Ca |  | - |
| 3 | *Yang-gak* (pattern lines) | Black | Ca, Mg |  | Plant oil soot (ink) (organic) |
| 3b | *Yang-gak* | Black | Ca |  | Plant oil soot (ink) (organic) |
| 4.1 | Skin | Red | S, Pb, Ca, Mg, As, Fe |  | Iron oxide red |
| 4.2 | Eye | Black | S, Pb, Si, Ca, As, Mg, Fe |  | Plant oil soot (ink) (organic) |
| 4.3 | Eye | White | S, Pb, Mg,  Ca, As, Fe |  | Lead white |
| 4.4 | Lip | Red | S, Pb, Mg, As,  Ca, Si, Fe |  | *Yeonji* (organic) |
| 4.5 | Beard | White | S, Pb, Mg, As,  Ca, Si |  | Lead white |
| 4b | Face | Pink | S, Pb, Si, As, Mg, Fe, Al,  Hg |  | Lead white, Cinnabar |
| 5 | Collar | - | S, Pb, Ca, As |  | - |
| 5b | Collar | White | S, Pb, Si, As |  | Lead white |
| 6 | *Dal-lyeong* | Green | Ca |  | Indigo (organic) |
| 6b | *Dal-lyeong* | Green | Ca, Mg |  | Indigo  (organic) |

*Note.* The analysis was performed on a table that gave XRF results of S, Si, Al.