Introduction
As part of Art UK's Sculpture project to digitize sculpture collections around the UK, the sculptural pieces of The Royal Highland Fusiliers Museum in Glasgow had to be documented and catalogued. This involved locating them, photographing them, and when possible, conducting further research to establish makers and provenance. One such sculpture involved in this project was a statuette based on the war memorial at Ayr to personnel of The Royal Scots Fusiliers who fell in the Second World War (Figure 1). The initial goals of research on this sculpture were to establish a maker, understand its relationship to the full-sized monument in Ayr, and discover how it entered the museum’s collection. These then expanded to include finding out more about the materials involved in its production.

Provenance Research
The first step in understanding the history of the statue in the collection was to learn more about the full-sized monument in Ayr, which was completed by Charles d’Orville Pilkington Jackson, an Edinburgh-based sculptor. The National Library of Scotland held Pilkington Jackson’s papers, and a search of them revealed some key findings:

- The statue was a 1/3 scale plaster model made by Pilkington Jackson in preparation for the full-size statue (Figure 2).
- It was donated by Pilkington Jackson to The Royal Highland Fusiliers in 1961, and entered the museum collection around December of the same year (Figure 3).
- A photograph in the NLS collection also showed that the model for the statue was a former Highland Light Infantry soldier, who had claimed for years that he had posed for it (Figure 4).

Technical Examination
Once it was established that the sculpture in the collection was a plaster model made by Charles d’Orville Pilkington Jackson, the question was raised as to what type of plaster the sculptor used and why this particular statue had been painted to appear like bronze. Therefore, the model was viewed under ultraviolet light and three samples were taken from areas of loss along the bottom edge of the back of the statue for microscopy and Fourier Transform infrared spectroscopy with attenuated total reflectance (FTIR-ATR). The findings included:

- The UV lamp showed the presence of inorganic compounds in the paint layer (Figure 5).
- Microscopy revealed that the surface was highly uneven, with large gold, black, and crystalline particles (Figures 6 and 7).
- FTIR-ATR results showed calcium sulphate for the plaster, meaning that Pilkington Jackson likely used gypsum (plaster of Paris) for this preliminary model.

Conclusion
Through provenance research and technical analysis, it was possible to establish that the sculpture was actually the original scale plaster model prepared by Charles d’Orville Pilkington Jackson. He donated it to The Royal Highland Fusiliers, joining the museum collection in 1961. Technical analysis revealed more about Pilkington Jackson’s materials used in the plaster model, but did not provide clear evidence of when or why the overlaying paint was added. Therefore, more research is need to understand this aspect of the sculpture.

Sources:
2. Ian Buchanan-Dunlop, Brigadier Buchanan-Dunlop to Charles Pilkington Jackson, April 26, 1961, National Library of Scotland.

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