

Introduction

The cartoon known as *Epifania* (1895,0915.518+) was produced by Michelangelo between 1550 and 1553. It measures approximately 2.3 x 1.6 metres and is executed in black chalk on 26 sheets of Italian hand-made laid paper. It was made as a model for a painting by Michelangelo's biographer Condivi, which exists in an unfinished state in the Casa Buonarroti in Florence. It is unusual for large preparatory designs of this kind to survive, but the cartoon was found in Michelangelo's studio at his death.

Over its 500-year life span *Epifania* has undergone various interventions relating to preservation and display. It entered the Museum's collection in 1885 mounted on a wooden panel, and since that time has had only minor remedial treatments. Recent examination however, has shown that the wood is off-gassing volatile acidic compounds and that the cartoon is supported overall by a poor-quality 19thC paper. There are many areas of old damage and loss, especially around the edges, and the drawing is under slight tension making it vulnerable to fluctuations in temperature and humidity. Because of all these concerns a major conservation project has been established with the aim of minimising future degradation by removing the drawing from its backing panel and 19thC paper, and remounting it on a suitable, lightweight support that will help ensure its long-term preservation.

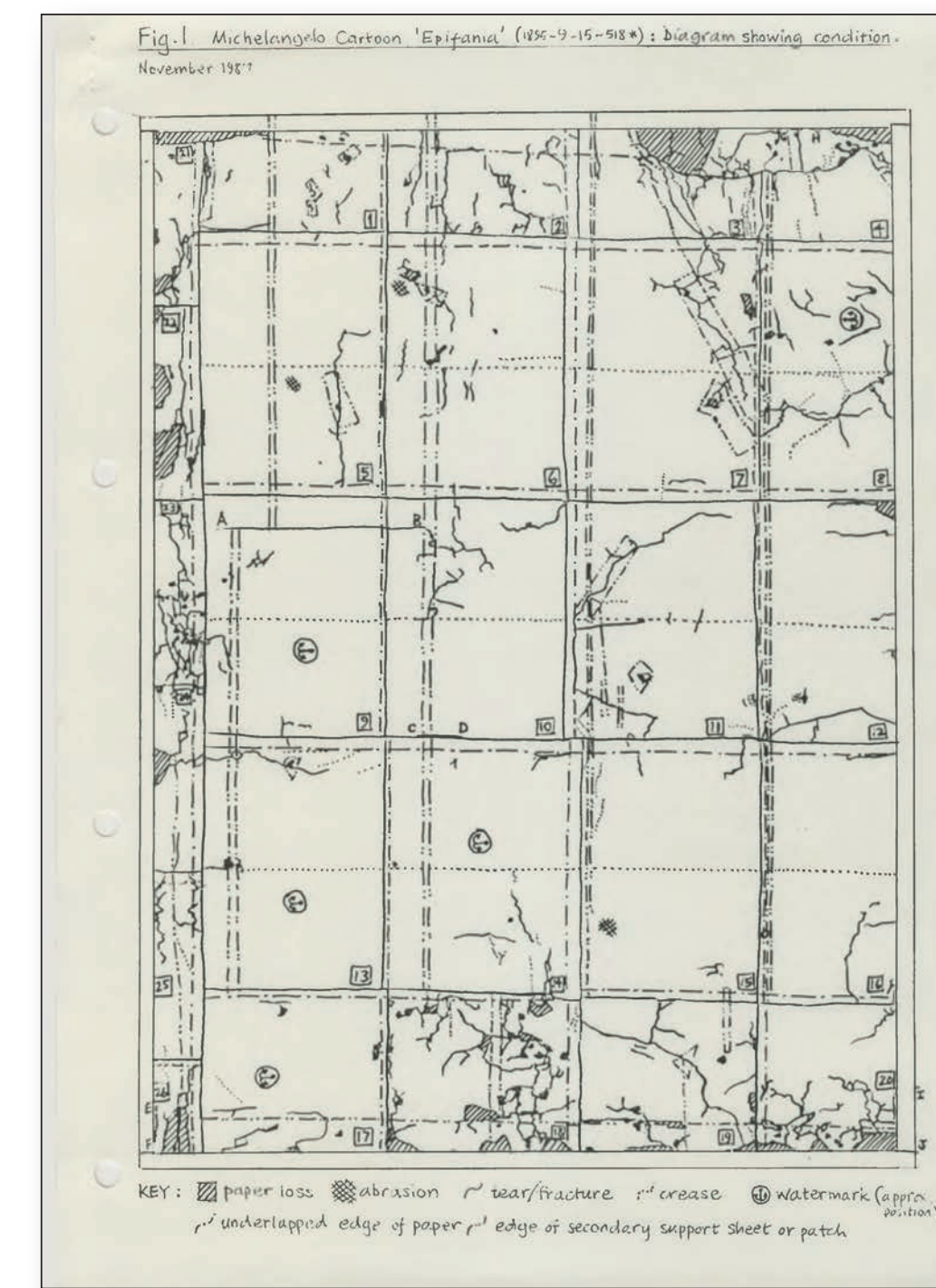


Method

For a large, complex work digital mapping provides an ideal documentation method. Adobe Illustrator software enables the information gathered during meticulous visual examination to be recorded by overlaying high-resolution digital images with a diagrammatic representation of structures and damage.

The cartoon was photographed in the Museum's photography studio in visible, UV and IR light. It was also photographed close-up in 6 sections.

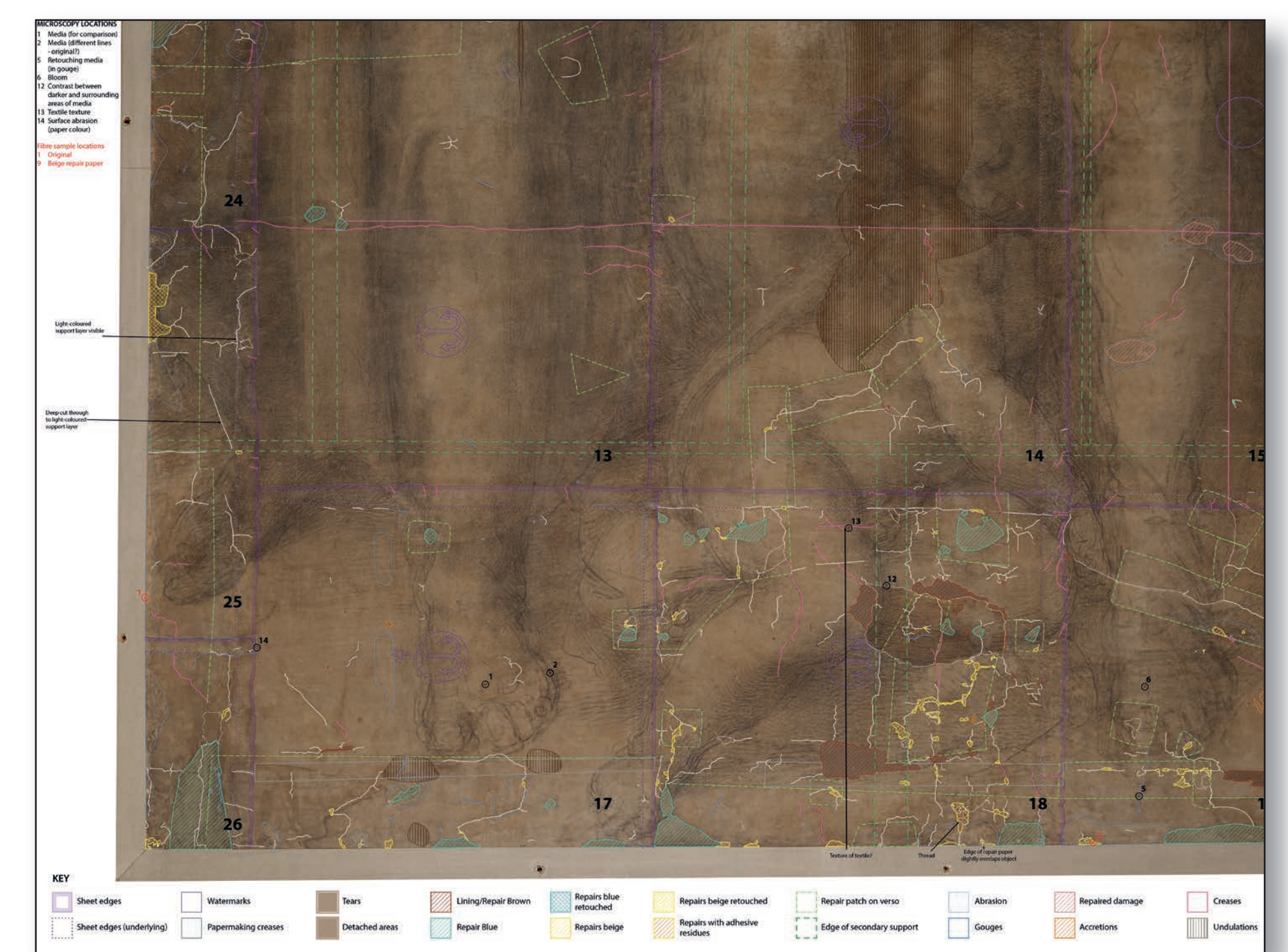
A diagram of the entire cartoon was drawn to outline the structure of the support. Sheets making up the primary support were numbered to match those of the diagram made in 1987, making comparisons between diagrams easier. The location of watermarks and joins of the secondary support were also added. Examination in raking light revealed additional anchor watermarks, and on some a star was also visible.



Photographs taken in raking light supplemented studio photography, highlighting surface irregularities. Overlaid onto the original image they aided the interpretation of complex damages, and features could be mapped with increased accuracy.



The UV image overlaid onto the visible light image highlighted features such as sheet joins, repair patches on the verso and lines of adhesive along tears and fractures. This confirmed and clarified observations made in visible and raking light.

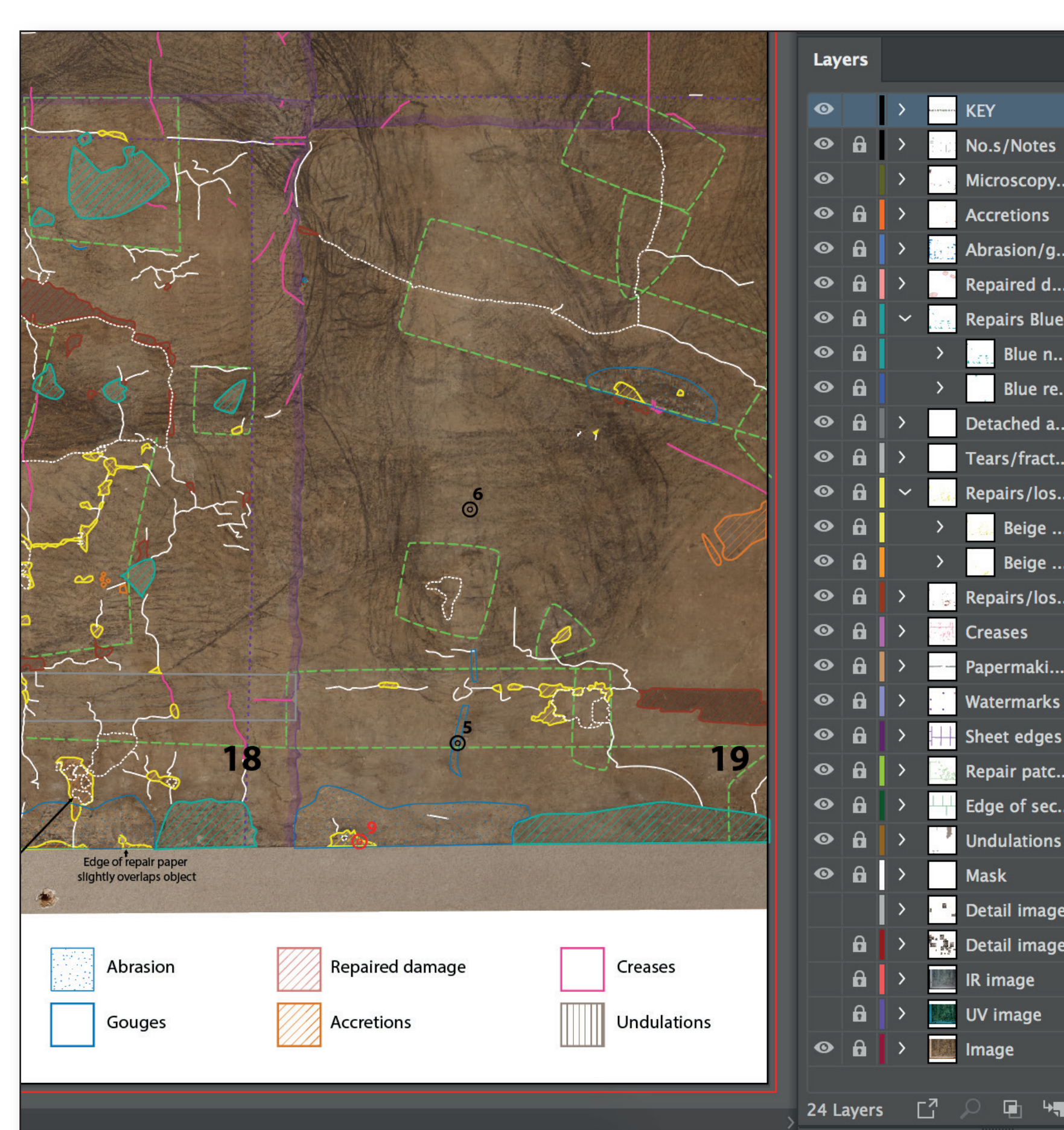


Each category of feature was represented by a combination of line, pattern and colour, so they were easily distinguishable. The location of microscopy images and fibre sample locations were added, and the diagram was also annotated with other relevant information that could not be categorised.

Observations

Interesting features were revealed under examination: located on John the Baptist's left knee close to the join between two sheets, were small crescent-shaped creases.

When drawn in diagrammatic form, a pattern emerged and suggested the impression of 4 fingers and a thumb, possibly made during construction of the cartoon.



Conclusion

Using digital damage mapping allows large amounts of finely detailed information to be included and categorised into separate layers that can be isolated or combined to aid interpretation. The arrangement of layers also helps visualise the sequence of repairs.

Because *Epifania* is a rare example of Michelangelo's preparatory works of this scale, the surviving features of its creation and subsequent use provide valuable historical evidence.

The series of damages and repairs visible today also document how this 'ephemeral' object has been regarded and cared for over its long lifetime. Careful consideration will need to be given to this history in determining any potential interventions during the current conservation process. The gathering, interpretation and recording of physical features and vulnerabilities is crucial for informing treatment decisions and providing a detailed reference for before, during and after treatment.

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