

American Friends of Herculaneum Society Scholarship Report
Digitization of P. Herc. 817: An Historical Overview
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My research centers on the digitization and technological work completed on the Herculaneum Papyri through the lens of one scroll, *P. Herc. 817*. This unique papyrus can offer a case study of the enduring value of each set of digital images in transcription and interpretation research. My MA thesis offers a detailed history of all reproductions of *P. Herc. 817*, the *Carmen de bello Actiaco*.

My initial work on this topic included researching the BYU infrared images, both sets of disegni, and transcriptions by David Sider and Herbert Benario. I also corresponded with the team from EduceLab to understand the technological innovations they have been utilizing to further unlock the papyri. I reached a point in my research where I needed to confer with the originals to closely compare them with the digital surrogates. Through the generous American Friends of Herculaneum scholarship, I was able to travel to Naples, Italy and work directly with *P. Herc. 817* at the Biblioteca Nazionale.

My research goal was to complete a thorough comparison of each cornice of *P. Herc. 817* in-person with the 2000s BYU infrared images to ascertain what damage had occurred to the original over the intervening years and to evaluate the limitations and benefits of the digital images. To do this comparison, I looked at the originals closely in small increments through the microscope and carefully followed the perimeter of each fragment, while I checked the infrared images on a laptop and made notes of discrepancies on printed, stitched infrared images. After I returned from Italy, I compared the recent 3-D images (courtesy of EduceLab) and the 1960s negatives (courtesy of CISPE) of *P. Herc. 817* with the corresponding infrared images.

In my research in Italy, I found many slight differences between the infrared images and originals, that in many cases signify corruption to the original papyrus. The most notable difference found was between the infrared image from the 2000s and the original image of cornice 2, pezzo five; on this fragment, a small piece with a character has broken off and rotated another direction and by this damage, has revealed a letter from the leaf underneath. Ascertaining how the piece moved and changed positions was possible only by looking at the 2-D infrared image (fig. 1) and is shown clearly through the 3D infrared layer (fig. 2) and the 3D dark layer (fig. 3).

Through the research in Italy, I was able to substantiate the value of the original images, as well as the value for each other type of digital image: the recent 3-D images, the 2000's infrared images, and the 1960's negatives. There were important contributions from each digital reproduction of *P. Herc. 817* which can show the value of the digital images for the entirety of the Herculaneum Library. I want to thank CISPE and the staff at the Biblioteca Nazionale. Their gracious welcome and kindness made this research trip an incredible experience. I am also profoundly grateful to the American Friends of Herculaneum. The AFoH scholarship enabled my own autopsy of the papyrus, and facilitated important scholarly connections I will need to further my research.

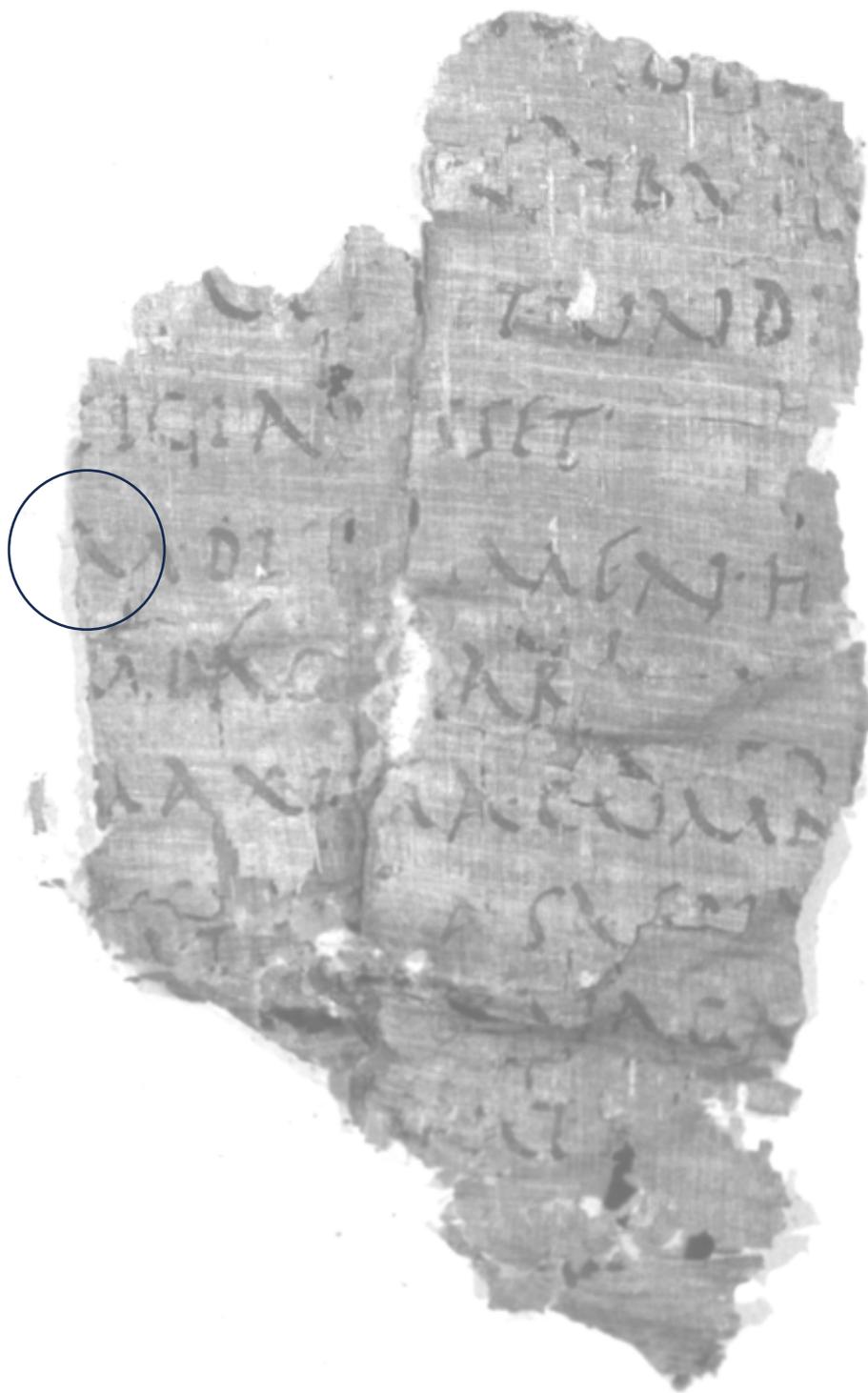


Fig.1: BYU infrared image of cornice 2, fragment f5. Circled area indicates where piece will come loose and rotate.

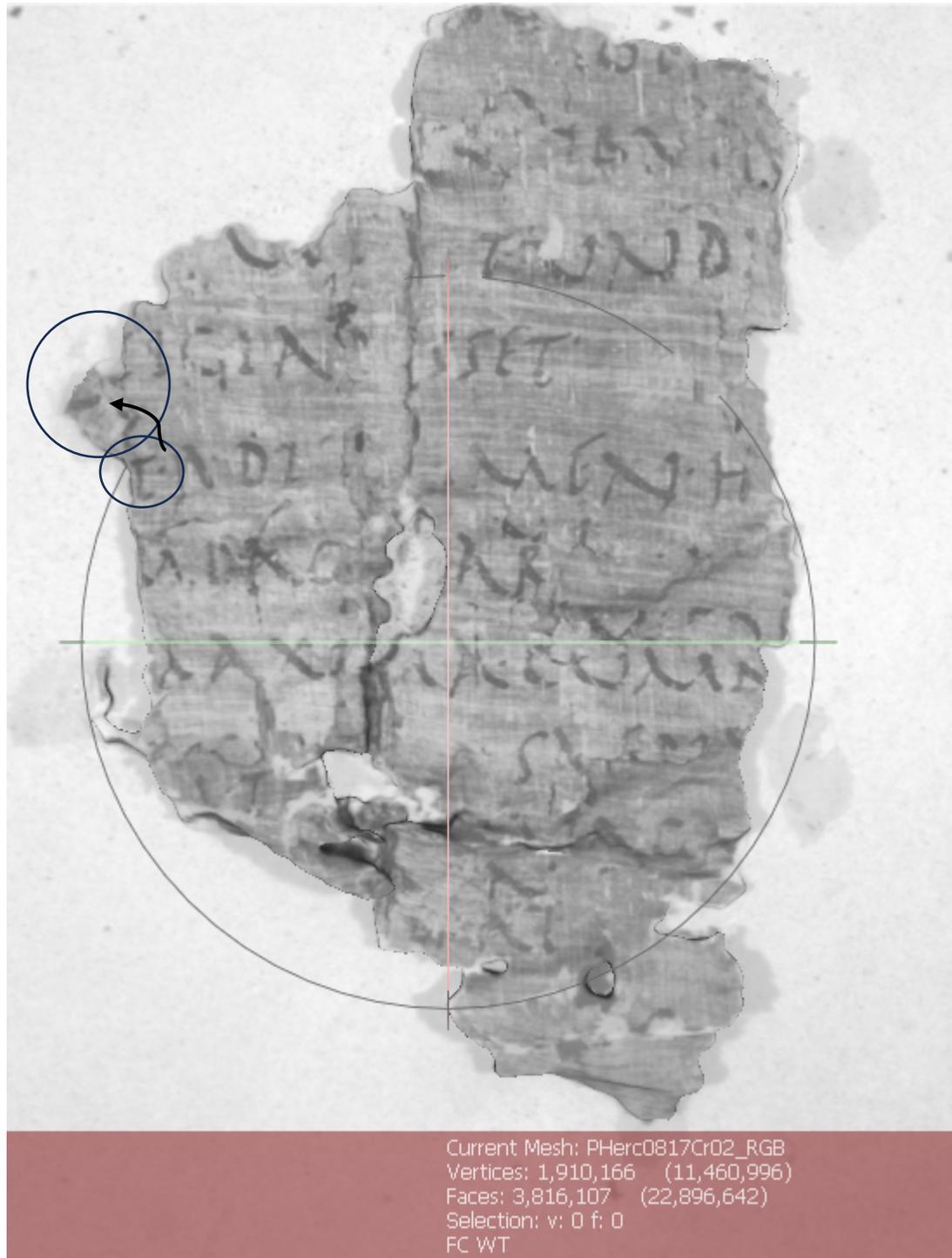


Fig. 2: 3-D image composite of cornice 2, fragment f5. University of Kentucky, EduceLab.
Larger circled area indicates rotated piece. The small, circled area shows the underlying layer and new character now visible. The arrow shows the path and rotation of the piece.

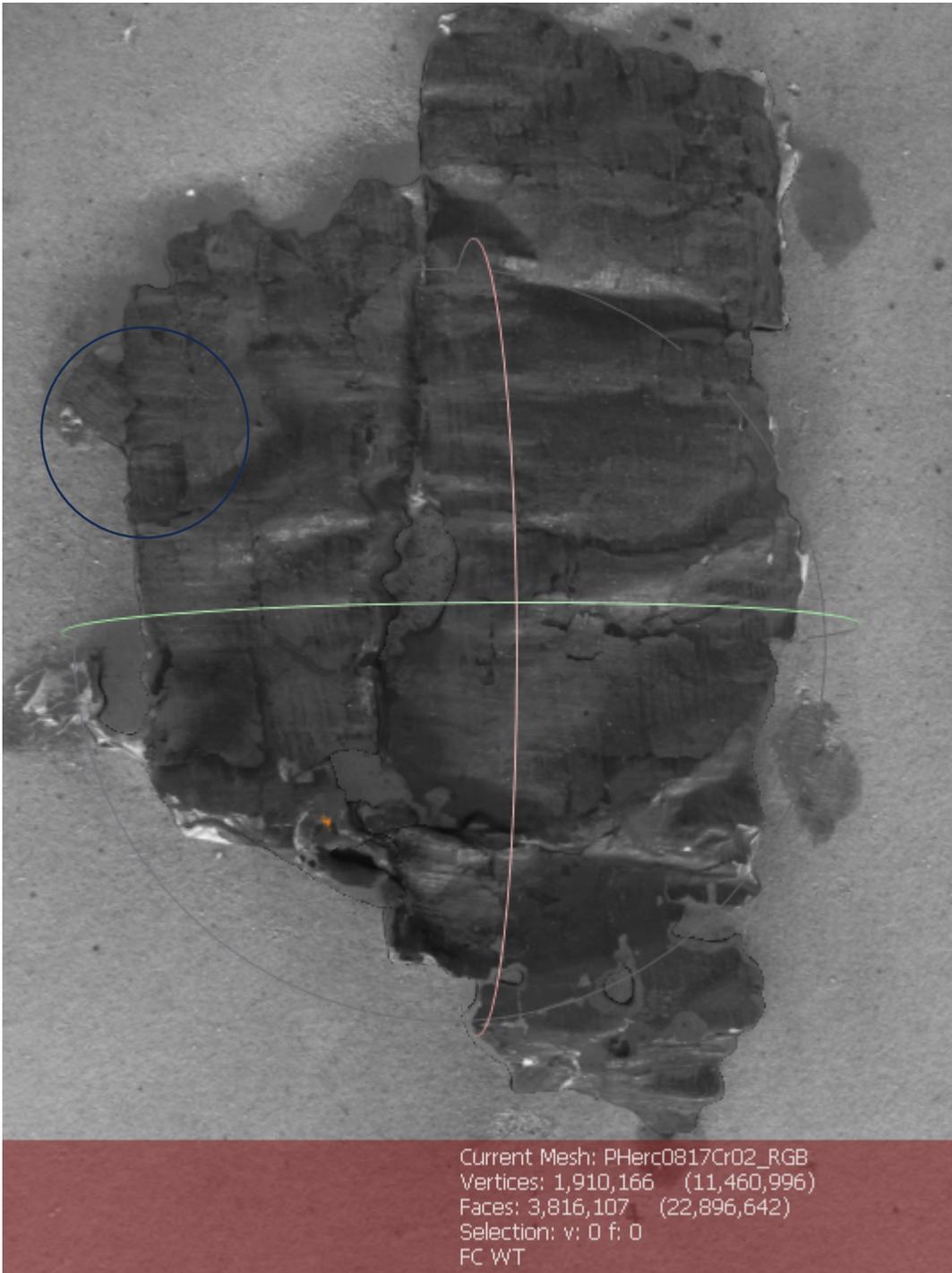


Fig. 3: 3-D image layer of Cornice 2, fragment f5. University of Kentucky, Educelab. Circled area indicates where the piece broke off and rotated, and clearly shows grain patterns and layers that more clearly indicate the piece's shape.