In the above quote, Oscar Wilde describes the power that color can have over people. When people think about the gift of sight, they often refer to the gift of being able to perceive all the colors around them. It is for this reason that the paint industry makes millions on providing a spectrum of finishes for interiors and exteriors of buildings. Color sets a mood and makes a statement about space. It can influence the way people make a decision about how to occupy a room or its purpose. It can outwardly express the taste of individuals. Color is an important part of everyday life. However, it is often overlooked or ignored in the conservation of the built environment.

In art and architectural conservation since the 1970s, Infrared Spectroscopy is often used to analyze historic pigments and their media. Fourier Transform Infrared (FTIR) was introduced in the 1980s, followed quickly by the development of the Infrared Microscope. Because the configuration of instruments costs over $100,000 with testing samples priced at hundreds of dollars, it is often cost prohibitive for many conservators, consultants and scientists. Recently, a less expensive and smaller FTIR instrument was introduced. At $15,000, the Brucker Alpha-P presents a much more approachable cost.

In my thesis I wish to compare the results of the pigment and media analysis made with the Alpha-P, located at the institute of Fine Arts to those made on the much larger and more expensive Hyperion FTIR microscope in the Metropolitan Museum’s Objects Conservation Laboratory. In addition to investigating the accuracy of the Alpha-P’s results, I would also like to

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1 Oscar Wilde, “The Critic as Artist, Part II,” in Intentions (New York: Brentano’s, 1905) 199.
discern what the smallest sample size an operator may use before significantly altering the results. There is currently no published information available as to whether this machine performs to the same standards and levels as the larger FTIR microscopy with regard to pigment and media analysis. Because the Alpha-P generally analyses large samples, it may be better applied to architectural pigment testing because of the availability of a more invasive paint sampling than permitted in the world of art conservation. Should this test perform and produce comparable, if not better, results, then the conservation world may find pigment testing more cost effective and easier to execute. In addition to comparing and contrasting the performances of the aforementioned equipment, I would also like to begin to compile library of architectural pigments in media for the Infrared and Ramen Users Group (IRUG) as no such compilation has yet been made available.