A Study of A Tangible Object - Phthalo Blue paint

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To start, it is important to understand the basics of this tube of paint in front of me. Color aside, the paint is already interesting by being a “slow-drying acrylic”. This is an oxymoron for most artists, as acrylic is notoriously fast-drying. Being water-based, acrylic paints are easy to use, easy to clean, and fast to work with, which transformed the art world in the middle of the 20th century (Patterson, 2020). Up until the invention of acrylics, oil paint was the primary medium of painters for centuries. Oil paint is still used today, and it is such a staple for classically trained artists that even acrylic paint often aims to mimic the use of oil paint. This is obvious in the naming of colors such as “umber,” which was a brown earth pigment common in oil paints.

Pigment and paint innovations have allowed artists to access a wider range of colors in the medium of their choice. Most importantly, inventions of new pigments have also improved the quality of certain colors on the artists’ palette.

Blue shades are some of the ones that benefit most from the modern scientific invention of these new pigments. Historically, blue was an extremely difficult color to achieve in a pigment (and hence in paints and in the artworks created with those paints). Multiple cultures across the world have found ways to utilize naturally occurring blue in arts and crafts. Ground Lapis Lazuli from Afghanistan was one of the most vibrant and most expensive ways an artist could capture blue onto their canvas. Ancient Lapis Lazuli's ultramarine hue is similar to today’s synthetic ultramarine blue hues; artists do not have to go to such expensive lengths to get the same tones today.

Less popular but still often utilized for blue was glass containing cobalt and potassium, also known as smalt. Ground finely enough, it could be combined with an oil medium to create blue as well. However, this method of making blue pigment was much less effective in the long term. The lightfastness, or how well the pigment maintains its color over time exposed to light, is very

poor with this pigment (Hatch, 2019). This leads to paintings where the blue colors fade over time. Being more affordable than Lapis Lazuli, however, led to its use in many artworks for centuries across Europe.

Over the years, innovations have led to the invention of new blue pigments, with Prussian Blue being invented early in the 18th century and quickly replacing smalt as a common blue pigment on the artists' palette (Oakley, 2018).

Phthalocyanine was one of the most significant discoveries ever in the world of pigments. The discovery was made initially in 1907, but was disregarded until years later. In 1928, workers at Scottish Dye Ltd were finding blue impurities in what was supposed to be a white final product. This iron phthalocyanine turned out to be a byproduct of making phthalimide. Workers continued to investigate this blue byproduct, and by 1929 the company had secured a patent for the preparation of phthalocyanine produced from phthalic anhydride.

Since the technology behind pigments and paints has changed so much over the centuries, it is interesting to consider how artists may have had different results with modern innovation. Additionally, beautiful pieces of art look very different today than when they were first painted, due to fading and degradation. It is equally interesting to consider what a painting looked like when it was first completed, before time could break down its pigments.

In investigating a simple tube of paint, I was particularly drawn to these thought experiments. As such, I decided to choose a painting with a degraded smalt paint, and repaint it with modern materials. I chose the painting "The Dream of Saint Helena" by Italian artist Paolo Veronese, painted in about 1570 (Nationalgallery.org.uk, 2025). This painting features Saint Helena, Empress and mother of Constantine, who was known for spreading Christianity and building important churches in the third century A.D. She was said to have received information in a dream about the location of the true cross that Jesus was crucified on (Tribe, 2022). Paolo Veronese, of course, is capturing this lore in his painting.

Recreating this work achieves multiple goals. First, it gives viewers an idea of what the painting might have looked like when originally painted. Centuries of variable temperature, humidity, oxidation, pollution, and light exposure have greatly affected how the painting looks today. Though all the colors are somewhat faded and yellowed, the sky painted with smalt blue is particularly different today than it was over 400 years ago. It has turned pale and gray, looking more like a sad yellowish overcast backdrop than a lively blue sky. By seeing a fresh interpretation of the original painting, viewers can gain appreciation for the art and the artist's vision.

Second, using modern paints allows me as the artist to consider the process of painting as it is affected by the medium and materials. All artists are influenced by their time and available resources. Besides the role that the medium plays in making the artwork, I also get to connect with artists of the past by copying the masters - something that was a traditional way to learn for Renaissance artists.

Reflecting on some of the more introspective and process-dependent parts of my project, I created the artist statement below to share what I learned.

> In deciding on this Italian Renaissance painting for my final project, I do feel that I am pushing myself out of my comfort zone in many ways. Compared to other paintings, copying a Renaissance work is not common for me, and where I have practiced some copying, it has been of Flemish work (a favorite of mine). To many, there is not much difference between one Renaissance painting and another, but I have picked up decided tastes and a discerning eye for Renaissance art, making this a rather new experiment. Importantly, while many paintings have hints of faded blue pigments, I wanted to land on a painting that had smalt detected in the paint analysis (being therefore close in color to my phthalo blue). This was one of the only paintings that most definitely had smalt in the paint, and also had been greatly affected by time so that a copy would be a most interesting and astounding final result.
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> Painting in a slow-drying medium like oil paint makes for smoother blending and the building of thin layers or glazes. What I notice about using slow-drying acrylics is that I get a similar capacity for blending smooth forms, which contributes to realism and drama. However, acrylics lack the ability to do transparent layers or glazes. This makes a noticeable difference in achieving soft edges, luminous skin, and flowing forms. Even with the paint being slow-drying, I still had to work section by section, as the paint dries in 30-60 minutes compared to hours or days for oil paint. This meant that previously worked sections could not necessarily be returned to in subsequent painting sessions. Instead, I could work over previous work, matching what was going well and changing what was not.
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> I can imagine that Paolo Veronese, while creating his original painting, came back many times and made small adjustments. Perhaps he was scraping the canvas clean where something was too far off or adding a transparent glaze to make the shadows darker and more dramatic. This I could not do, forcing me to constantly reference the painting and compare how to make it closer while sometimes completely covering what was before me. However, I also found great joy in being able to cover a mistake only an hour after I made it - no scraping or curing needed.

In creating this painting, one thing that I reflected on a lot is how lucky I am to live in this current time, both to have access to modern technology and to also be unburdened by certain societal expectations as female artists of the past have been. Art has never been separate from society and culture. As such, many women did not have the freedom to learn or make art like their male peers. Breakthrough women artists existed in many times and many places, but they were the exception, not the rule. As a result, 87% of art in museums is by men (Topaz et al., 2019). Even today, many indicators show that women are less represented in the art world (National Museum of Women in the Arts, 2022). So I am, of course, reflecting on my ability to learn and practice art unlike women of the past, but still represent a struggle for equality in this field.

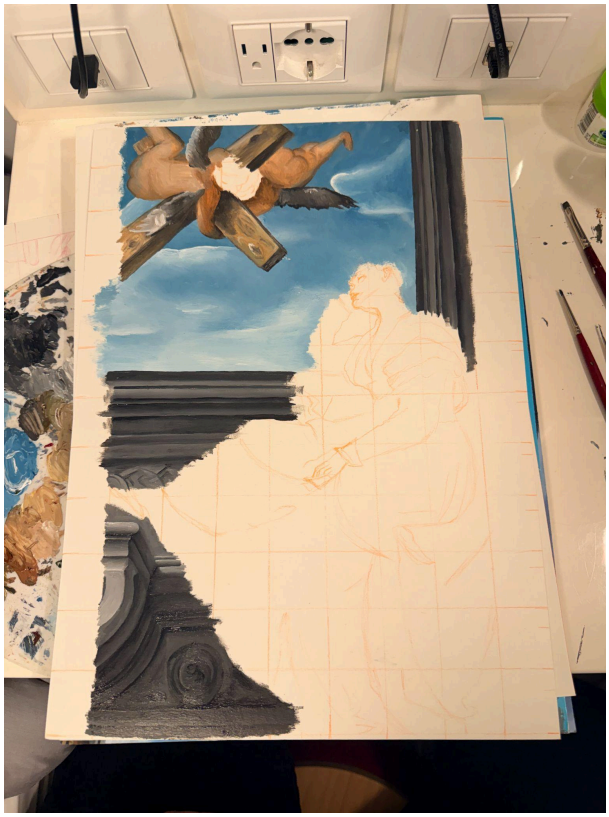
Furthermore, while considering the intersection of art and gender, I was looking at the woman in front of me materializing out of paint. By some coincidence, I was reading the book "The Making of Biblical Womanhood" by Beth Barr. The book investigates the historical context for the subjugation of women in Christianity, and provides interpretations of the bible as it relates to women throughout ancient, medieval, and modern history (Barr, 2021). Fitting perfectly with my subject of Saint Helena, it made me think about how female figures have been a foundation for the spread of Christianity. Saint Helena is someone whose religiosity was said to have contributed to the spread of Christianity. This is further evidence of the main point of Barr's writing - that women have always been apostles, preachers, and leaders in the Christian Church - despite continuing claims that women were not meant by god to be leaders in the church.

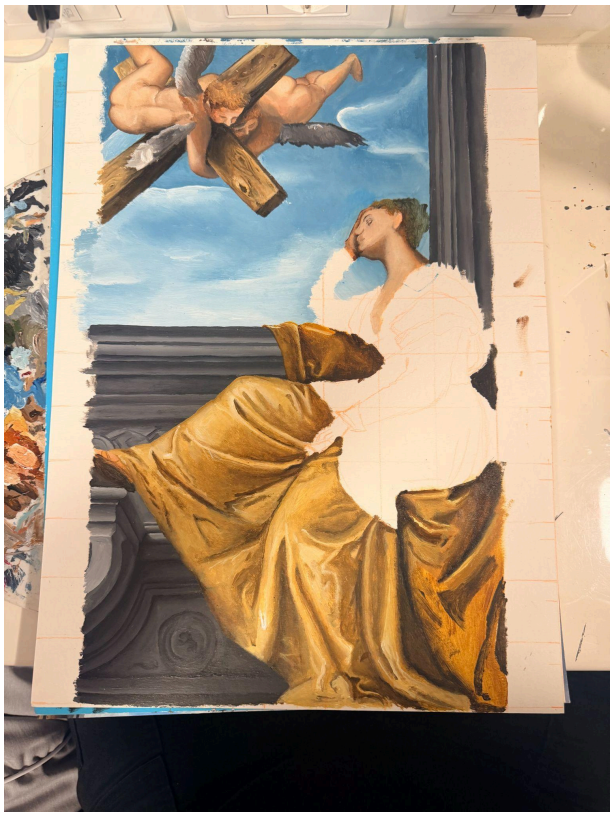
While the intentions of my project were not related to religion in the beginning, the church was a major patron of the arts for centuries, and religious themes have historically been a stronghold for artworks. I would be remiss not to mention this aspect of the art, which I find interesting and educational. It is also, for me, a personal reminder of how lucky I am to have more freedom than ever in my art. I can create a religious painting because I choose to, but I also can be accepted as an artist for creating art with themes and subject matter of my own choosing. I can tell that copying this painting taught me more foundational skills in painting, but it also expanded my intellectual understanding of art history and where I stand amongst centuries of artists before me.

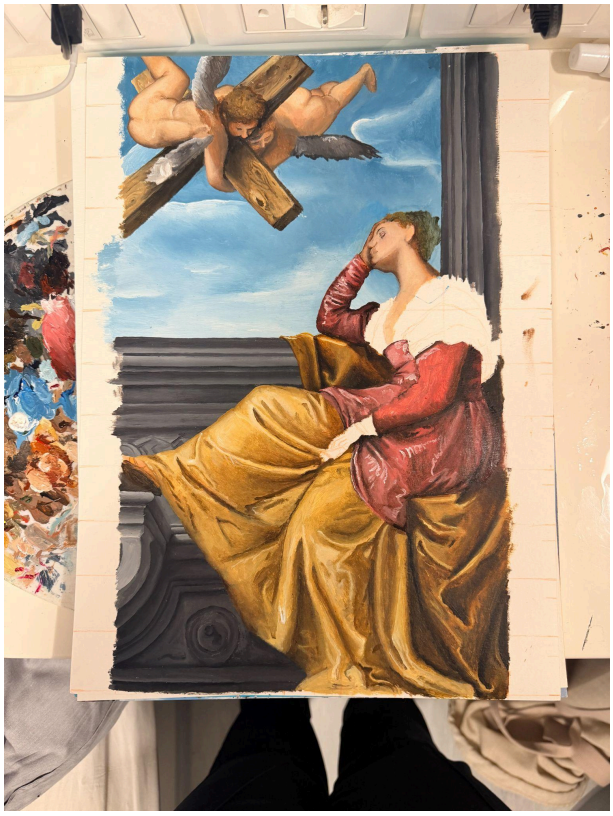
Veronese, P. (1570). *The Dream of Saint Helena*. [Oil on Canvas].

Medium: Acrylic on Paper, Dimensions: 12” by 20”

Progress Pictures







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