OPENING THE ARK PROJECT

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Introduction

In 2020, I began the Opening the Ark Project of Cincinnati, in which an exact replica of one of the great wooden arks of the Polish–Lithuanian Commonwealth was reconstructed in the United States. The rebuilt ark was among the jewels of European Jewry. Towering and coated in vibrant colors, it stood in Sidra, Poland, but was destroyed by the Nazis in 1942. With Polish, Sephardic, Ashkenazi, and Russian influences, it was a testament to a Jewish dialogue with art, artistry, and carpentry. Much of the inspiration for the project came from the Aron HaKodesh inside of the Scheuer Chapel of the Hebrew Union College–Jewish Institute of Religion (HUC-JIR) in Cincinnati. The Aron HaKodesh on Cincinnati's historic campus is the last of its kind—the last wooden ark from a wooden synagogue of the Polish-Lithuanian Commonwealth.

The Opening the Ark Project responded to some of the dilemmas affecting Jewish life in America today and helped redefine how many engage with Judaism and Holocaust education. The reconstruction was an open canvas for people experimenting with a new kind of personal and tangible connection with Judaism—through building something by hand. For engagement in this project, we reached inside and outside of our Jewish community and involved people in new ways. The ark will be touring the Midwest, starting in the Cincinnati area at the Skirball Museum in February 2021. The project has also received attention and grants from various organizations, including the Reconstructing Judaism/Auerbach Foundation, the Refusnik Project/Jewish Learning Works, and the Adath Israel Congregation of Cincinnati, Men of Reform Judaism, as well

as a direct grant from GoFundMe Charity for projects impacted by the COVID-19 pandemic.

Throughout the summer and fall of 2020, artists, architects, and structural engineers convened to rebuild the carved wooden ark in Cincinnati. Many found the project to be a functional escape from the endless constraints presented by the COVID-19 pandemic. At the end of 2020, the project was incorporated into a nonprofit 501(c)(3). This capstone review will document the project journey. The report will be divided into four sections, in sequential order of the project: a synoptic history of the project, early studies conducted as part of the project, grant proposals, and academic research on the single surviving ark from a wooden synagogue at the HUC-JIR in Cincinnati.

I. History of the Opening the Ark Project

Standing beneath the roof of the Chodorow Synagogue at the Diaspora Museum in Tel Aviv, Israel, was a coalescent moment that has informed my rabbinate. I remember staring at the ceiling in awe and admiration of the paintings gilding the roof's interior. The images were vibrant and colorful and came to life above my head. The artwork touched me in a powerful way. As a rabbinical student, I had never seen anything like it in our synagogues; as an artist and woodcarver, I had never seen anything like it; and as the grandchild of survivors, I had been told precious little about prewar Europe. I felt that a noticeable void had existed. I felt a need to fill the void and to attempt to restore something that had been lost. On that day, I committed myself to creating an exact replica of a majestic Aron HaKodesh from one of the vanished wooden synagogues and bringing it back into ritual use. The Opening the Ark project was the brainchild of this moment of epiphany.

This moment of epiphany was cemented upon my return to the United States, to the Scheuer chapel, the worship space of the Cincinnati campus of the Hebrew Union College–Jewish Institute of Religion (HUC-JIR). Housed inside of the chapel is a wooden ark, from the Polish–Lithuanian Commonwealth, the last remaining one of its kind. For four years of rabbinical seminary at the Cincinnati campus of the HUC–JIR, I have gazed in awe and admiration at this Aron HaKodesh standing inside the Scheuer Chapel, and doing so has prompted me further in this holy endeavor..

During the next two years of my rabbinical seminary, I spent much time every evening refining my woodcarving skills. In my final year of rabbinical seminary, I was ready. At its infancy, the project looked very different from how it developed. Originally, I was supposed to travel to Poland during the summer of 2020. I had originally planned to recreate a scaled-down

replica of an ark in Bobowa, Poland, from one of the surviving masonry synagogues of Poland, specifically the Bobowa Ark. I established contacts at the Jewish Historical Institute, the POLIN Museum, and the Workers Circle. The Workers Circle offered to support the project early on by bringing me to Poland. Shortly after the travel arrangements had been made, COVID-19 struck, and the project faced a dilemma. No longer could I go to Poland. No longer could I build an exact replica of a standing Aron HaKodesh. The project needed to adapt if it were to survive.

Over the ensuing weeks following the national lockdowns, I searched for a way to adapt the project. At first, I tried to imagine a way to pick up where similar projects had left off. As of 2020, no complete Aron HaKodesh from a wooden synagogue in Eastern Europe had been rebuilt successfully. However, there had been failed attempts. The closest example came from Congregation Beth Israel of Berkeley, California.

Initially, Congregation Beth Israel raised millions of dollars in 2000 and 2001, and their project included the backing of Eli Wiesel and national organizations. They were on track to rebuild one of the lost Aronot HaKodesh from Eastern Europe. Congregation Beth Israel had chosen to rebuild an entire interior and exterior of a synagogue from Przedborz, Poland, but the project was quickly scrapped in 2002. As I proceeded with my project, I chose to reach out to the former chair of the scrapped project, Friedner Wittman, to discern what had happened and to see if he would be willing to share any blueprints for use in my project. Wittman shared both resources with me.

Wittman elaborated on the project's pitfalls. More specifically, upon the growth of the project, a board was established connected to the congregation. The board was overseen by people with different, competing visions. Additionally, in the wake of 9/11, the project began to face unexpected financial hurdles. The amount of money raised was sufficient for building the

exterior of the building but not the interior. The final nail in the coffin was new rabbinical leadership that fundamentally did not connect with the vision.

Wittman also shared the blueprints for the interior of the synagogue with me. The blueprints revealed an Aron HaKodesh that was quite small and overpowered by vibrant paintings on the walls and on the ceiling. Fundamentally, I had trouble connecting to the interior's blueprints. This was someone else's vision for a rebuilt synagogue. Instead, my focus was on a majestic Aron HaKodesh. I needed to start from scratch, from an Aron with which I felt some sort of connection. Finding reliable blueprints would be the greatest challenge moving forward.

After scrapping Congregation Beth Israel's blueprint, I proceeded to search elsewhere and returned to the contacts I had established at the Jewish Historical Institute. One of its researchers, Aleksandra Sajdak, pointed me to several online archives and the publications of Maria and Kazimierz Piechotka. Included in these resources were actual blueprints of some of the perished wooden synagogues of Poland. The blueprints were detailed enough to proceed in a new direction: to rebuild from scratch an Aron HaKodesh from one of the perished wooden synagogues of Eastern Europe.

Early on, I was searching for something with which I could connect, both spiritually and artistically. I was struck by one synagogue in particular, from Sidra, Poland, for several reasons. First and foremost, the appearance of the ark, even from its black-and-white photographs, showed that there had been an abundance of vibrant color in its original form. It was beautiful, vibrant and well defined by folk art.

Second, the ark's location was important. This synagogue was on the easternmost frontier of the Polish–Lithuanian Commonwealth. The community was very close to Bialystok, with

which I have a special connection. During the Second World War, Bialystok and Sidra were annexed by the Soviet Union in the Partitions of Poland. Stalin exiled many of the Jews from Bialystok to the steppes of Russia prior to the Nazi invasion. As a result, many of these Jews survived the war.

My family came to the United States from the former Soviet Union. I grew up in Philadelphia, in a very large community of Jews from the former Soviet Union. Many of my friends growing up had grandparents from Bialystok. They were Russian Jews, but their story was connected to Poland in ways that many other Russian Jews did not understand. I shared this connection to Poland with them. My great-grandmother was born in Warsaw. I chose this ark because it was a testament to our survival; our Jewish heritage, religion, and tradition of woodcarving would outlive not only the Nazis but also the Soviet Union.

Once the ark had been chosen, I wanted to be certain about the original colors and appearance. I reached out to Marina Amaral, the artist behind the *Faces of Auschwitz* exhibit in Poland, requesting that she colorize the black-and-white photos available from archives. Shortly thereafter, Marina returned the images with the colors brought to life. The brilliant colors spoke out to me, calling for me to rebuild the ark. I was set in my decision that this was the ark I would rebuild.

The next step was to determine the costs. I brought the rudimentary blueprints that I had accessed from the material provided by the Jewish Historical Institute to several architects in Cincinnati. I set up bids and met with teams of architects. Once costs were determined, I began fundraising campaigns. I raised funds very quickly, and the fundraising continued for four months (capping off at $50,000). The financial campaigns are further discussed in section II.

Once the costs had been accounted for, and as the earliest donations began pouring in, I proceeded with the proposal provided by the Drawing Department Architectural Firm of Cincinnati in the summer of 2020. The Drawing Department drafted modern blueprints and consulted with a team of structural engineers and myself to ensure the blueprint was exactly like the original. There were four phases to the blueprint development. The completed ark required a steel truss system for support and an abundance of carving and carpentry skills. Bids were also prepared for the steel truss system. Global Truss in California provided the steel truss system, which imitated the load-bearing wall of the synagogue that held the Aron HaKodesh.

There was much carving and carpentry work to be done. The first step was to determine what type of wood to use. I reached out to art conservationist Elizabeth Allaire, utilized by the Skirball Museum, for guidance. Allaire recommended that material (wood and paint) analysis be done on the Aron HaKodesh of HUC to help guide me. The Aron HaKodesh inside the Scheuer Chapel of HUC is the only surviving ark from a wooden synagogue on record, and fortunately, it is tied to the HUC-JIR (see section IV). The Skirball Museum granted permission, and a material analysis the Aron HaKodesh in the Scheuer Chapel was completed. The results of these studies are detailed in section IV. Briefly, these studies revealed that the ark's columns were made of poplar wood, and the carved panels were made of linden or basswood. Based on these findings, poplar wood was used for the column construction, and a wood more endemic and commonly harvested in the Bialystok region (larch wood) was used for the carved panels. The paint analysis revealed that the original paints were animal-based pigments. These very specific art supplies were acquired through Natural Pigments LLC. All paints were purchased as natural pigments (not oils). They (along with the natural gesso) were all made by hand on site at my home.

The amount of carving and carpentry necessary to complete this project was immense. Some parts of the project had to be outsourced for the project to be completed in time for the capstone submission deadline. The less artistic and ornate sections of the ark—more specifically, the base of the structure (i.e., the steps and the railings)—were outsourced to Bench Made Woodworking LLC of Cincinnati. The columns, which were rather plain in their original design, were also outsourced. Competing bids were made on both the platform and the columns. The columns were procured by hand from Amish craftspeople in Pennsylvania, as part of TurnTec LLC, and made of poplar wood. The base of the structure was manufactured by hand in Cincinnati by Bench Made Woodworking, also from poplar.

Meanwhile, I began carving the ornate panels of the ark. In total, there were 15 carved panels. I carved each panel over 1–2 weeks during the summer, from 9:00 a.m. to 5:00 p.m. every day. About this time, word began to spread about the project. The pool of skilled and unskilled volunteers grew. During the summer of 2020, every day was marked by a new volunteer helping out with the project. By the end of the summer, all the panels had been completed. In September and October, minor revisions were made to the carved panels.

Beginning in November and December, I began work painting the panels. Throughout the months of December and January, the final painting was completed, and in February, the ark's exhibition will begin at the Skirball Museum, with an opening gala Torah service broadcast online on social media.

II. Straw Poll

The key to the success of any fundraising campaign is to translate the key players' energy and devotion into more people and organizations with capital for investment and a shared vision. This vision and the language used need to shift remarkably depending on the audience for various organizations and people. If I wanted to cast my net wide, I needed to speak to Reform, Conservative, Orthodox, Reconstructionist, unaffiliated, Russian, American, and Sephardic Jews and non-Jews. However, I needed a baseline of information to work with, something that I could share with my organization to convey a shared vision. Thus, I conducted a series of straw polls, the results of which I used in most of the grant proposals. A copy of the straw poll is included in the appendix.

The straw polls revealed four important gleanings relevant to Holocaust education and Jewish art education. The poll included a series of statements, with a scale of agreement from 1 to 5 (from no to yes). The statements included, "The Holocaust and Holocaust education are important to me," "I want to feel a deeper connection to the Jewish heritage of art," "As a Jewish artist, craftsperson, architect (etc.), I would like to feel more celebrated in my community," and "As a Jewish artist, I feel as though my talents are often unwelcome in shul." The study revealed a staggering set of statistics. Regarding the first three statements, everyone's responses were in alignment, ranging from 3 to 5 in agreement. More specifically regarding each question, 68.4% responded with a 5 to "I want to feel a deeper connection to the Jewish heritage of art"; 78.9% responded with a 5 to "As a Jewish artist, craftsperson, architect (etc.), I would like to feel more celebrated in my community"; 73.7% responded with a 5 to the statement "The Holocaust and Holocaust education are important to me"; and for the remaining statement, "As a Jewish artist, I

feel as though my talents are often unwelcome in shul," 63.2% were in agreement, with nominal variances of 15.8% (4), 5.3% (3), 5.3% (2), and 10.5% (1). Conclusively, the study revealed a need and desire for artists in particular to feel a greater sense of ownership inside of synagogues, and that Jewish artistic tradition, woodworking, and Holocaust education may all serve as conduits for this expression.

III. Grants, Grant Proposals, Donors, and Stipends

I solicited grants from major national Jewish organizations. All grant proposals were successful. The organizations included the Reconstructing Judaism/Auerbach Foundation, the Refusnik Project/Jewish Learning Works, the Adath Israel Congregation of Cincinnati, Men of Reform Judaism, and a direct grant awarded by GoFundMe Charity for projects impacted by the COVID-19 pandemic. Crowdfunding campaigns were organized on GoFundMe Charity, and an Etsy page was established for donors who wished to support the project by purchasing custom woodcarvings. Offline donations were also issued by individual donors across the United States. In addition, the Foundation of Cincinnati offers financial stipends to all rabbinical students on the HUC-JIR campus of Cincinnati. These stipends were used to help with the project.

In total, close to $50,000 was raised over the course of four months. During this period, the project was incorporated into a formal nonprofit 501(c)(3). The applications for many of these grants are detailed in the appendix. Some grants were issued and unsolicited from organizations. Eligibility for the matching grant issued by GoFundMe Charity was determined by crowdfunding traction over a short time period during COVID-19. In addition, a separate Excel budgeting spreadsheet was provided for all grant proposals, and on the GoFundMe Charity page, fixing the proposal amounts to the various stages of project development (set sequentially in eight phases).

IV. Academic Research

An academic study of the Aron HaKodesh from Sidra, Poland, is very difficult today. The ark has long vanished, and no Jewish survivors account for its appearance or history. Scarcely anything has been documented. What is known is that the wooden ark from Sidra, Poland, was one of hundreds from the great wooden synagogues of the Polish–Lithuanian Commonwealth. By the end of the Second World War, all that remained of these iconic synagogues and their holy arks was ash.

Rather than grasp at straws, I chose as the focus of my study study the single remaining ark from a wooden synagogue known to survive the war. The ark made its way to the United States just before the Second World War and is now housed at the HUC-JIR campus in Cincinnati. I conducted a series of scientific and historical studies of the ark. The results of paint and wood analysis are provided in the appendix. The results of my close historical study are detailed below.

The Aron HaKodesh in the Scheuer Chapel of Hebrew Union College–Jewish Institute of Religion

Fig. 1. The Aron HaKodesh standing in the Scheuer Chapel

As of 2019 and early 2020, a great deal of mystery surrounded the Aron HaKodesh inside the Scheuer Chapel. Common knowledge was that the ark had been acquired by the Skirball Museum, originally from a man named Salli Kirschstein, a German-Jewish Judaica art collector, and that his collection had been shipped to the United States prior to the Second World War. Kirschstein was a prominent art collector and founded one of the earliest Jewish museums in Berlin inside of his villa. Originally, we could account for the fact that the Aron HaKodesh was acquired by HUC through Salli Kirschstein's collection, in either 1925[1] or 1926.[2] Professor Adolph S. Oko was instrumental in the acquisition.[3] In its first iterations, the Aron HaKodesh at HUC was on display at various museum venues on the Cincinnati campus from 1939 until 1974. Eventually, when the Scheuer Chapel was renovated in 1974, the ark was adopted into HUC's ritual space.

However, many questions remained. *From whom did Salli Kirschstein acquire the Aron HaKodesh? Where was it originally used? When did it arrive in Salli Kirschstein's collection? When exactly did it arrive in America?* These questions remained unanswered and were difficult

[1] "A Panoramic View of Judaism…" American Jewish Archives. October 26, 1963. P. 14.
[2] A document suggests the date as possibly 1926. "Scheuer Chapel, HUC-JIR." Document acquired from Abby Schwartz, director of the Skirball Museum of Cincinnati, Ohio.
[3] Interview with Abby Schwartz, director of the Skirball Museum, Cincinnati. 2020

to determine. I chose to determine in this project where the ark was from and the story of its acquisition, and its relevance to Reform Judaism. This research can finally put these questions to rest. This research revealed an amazing story behind the acquisition of the Aron HaKodesh, which is extremely relevant to the study of Reform Judaism.

Previous studies

Initially, Abby Schwartz, director of the Skirball Museum of Cincinnati, and Dr. Richard Sarason, director of the Pines Graduate School, were the best informed as to the history of the ark. Both were aware of the supposed date of construction fixed to the Aron HaKodesh being 1740, as well as the supposed original location of Posen, Poland, because of an article published by the *American Jewish Achieves* (AJA), quoting the former curator of the Hebrew Union College Museum (now the Skirball Museum), Dr. Joseph Guttman (1923-2004), in 1964.[4] In 1964, Guttman wrote a series of publications for the AJA, documenting Jewish engagements with art, and included was his brief statement concerning the ark. However, no sources could be accounted for regarding how Guttman ascertained this.

This article aside, a limited amount of more detailed secondary source material on the Aron HaKodesh did exist. Two more lengthy secondary sources attested to its supposed history. Both articles were published by former curators of the museum housed on HUC's historic campus. One article was published by Grace Cohen Grossman in 2005, and a more detailed article was written by Guttman in 1991.

[4] "A Panoramic View of Judaism…" American Jewish Archives. October 26, 1963. P. 14.

Dr. Joseph Guttman's article was published in the *Journal of the Center for Jewish Art* (1991). Guttmann includes an image of the Aron HaKodesh in Kirschstein's private collection in Berlin during the 1920s. Guttman also comments on Kirschstein's 1908 purchase from Heinrich Frauberger[5] (the German-Catholic art historian) and refers to the collection acquired in 1926 as the "Kirschstein-Frauberger items."[6] Frauberger is noteworthy for amassing one of the largest private collections of Judaica in Europe. Guttman comments specifically on the Aron HaKodesh in his article. He includes a report of the collection written by Salli Kirschstein. Kirschstein's report describes the Aron HaKodesh, later sold to HUC, as the "holy of holies, the wood carvings from the 17th century"; however, Dr. Guttman includes a clarification to Kirschstein's dating, noting it was "actually mid-eighteenth century."[7] Guttman's 1991 article does not tie the ark to Posen. Rather, the ark is tied to Posen in a single article from 1964,[8] published in the *American Jewish Achieves*, which omits any evidence or citation of Guttman's assertion.

Fig. 2. The Aron HaKodesh at Salli Kirschstein's private museum in Berlin.

Dr. Grace Cohen Grossman's article is from issue 66 of *The Chronicle* published by HUC in 2005. Dr. Grossman's article includes images of the unloading of the Kirschstein collection (it is presumed to include the Aron HaKodesh) in 1926 and an image of the Aron HaKodesh taken inside Salli Kirschstein's private museum in Berlin in the 1920s. In

[5] Gutmann, Joseph. The Kirschstein Museum of Berlin. Jewish Art. Volume sixteen / seventeen. 1991. Journal of the Center for Jewish Art. The Hebrew University. Jerusalem. 175
[6] Ibid.
[7] Ibid. 173
[8] A Panoramic View of Judaism…" American Jewish Archives. October 26, 1963. P. 14.

the article, Grossman remarks that the HUC Library, through Adolph Oko, held the 6,174 items of Judaica purchased in 1926 from Salli Kirschstein (1869–1935), which is "the seminal collection of Heinrich Frauberger"[9] Grossman goes on to say that Salli Kirschstein acquired Frauberger's collection in 1908.[10] Grossman also describes Frauberger at length as the "Catholic art historian and director of the Düsseldorf Kunstgewerbemuseum (Museum of Applied Art)"[11] and "the moving force behind the formation of the Gesellschaft zur Erforschung Jüdischer Kunstdenkmäler (Society for the Research of Jewish Art Objects) in Frankfurt-am-Main in 1901."[12]

Research

Based on this previous work, I began my research with the hypothesis that the ark was originally from Posen and acquired through Frauberger. I set off in search of corroborating evidence. I began my research where Grossman left off. I looked for evidence that the ark might have passed hands from the Frauberger collection to the Kirschstein collection. I reviewed Frauberger's collection on exhibition spanning the decades leading up to the sale of his collection to Kirschstein in 1908. There was no mention of the ark in this material. I needed to search elsewhere. I then turned my investigation to a conservation report written by Elizabeth Allaire in 2019. In her report, Allaire identified a shipping label on the back of the Aron HaKodesh, written in German. When I looked at the label, I realized that it involved more than met the eye. It demonstrated that the ark had been sent straight from Schönlanke (today Poland)

[9]Dr. Grace Cohen Grossman. The Kirschstein collection and the HUC-JIR. The Chronicle #66. Page 30. 2005. http://huc.edu/flipbook/chronicle/66/files/assets/basic-html/page30.html
[10] Ibid.
[11] Ibid.
[12] Ibid.

to Salli Kirschstein's address. Frauberger had nothing to do with the Aron HaKodesh. We needed to rewrite this history.

The shipping label

Fig. 3. Image provided by Elizabeth Allaire. Allaire Fine Art Conservation.

No scholarly mention exists of this label prior to this point. In 2018, Elizabeth Allaire of Allaire Fine Art Conservation was invited by Abby Schwartz of the Skirball Museum to present an estimate for conservation of the Aron HaKodesh. Upon close inspection of the piece, Allaire documented a small piece of parchment adhered to the back of the wooden ark. Initially, Allaire indicated the following in her report: "A fragmentary shipping label on the reverse of the carved scroll element on the proper right side of the Arkreads: 'Absender: H. Galinger, Schön...../ H.S.18 / Firma Herrn Frau... Schönlanke / auf(?) Nikolassee S... Schlachtensee/ Eu... / Frei!'" This parchment reveals three major important factors: a point of origin, destination, and sender.

Point of destination

In comparing this shipping label to other shipping labels from the period, I determined that the point of destination was, as Allaire identified from the handwriting, Nikolassee S.

Schlachtensee. The destination clearly refers to Salli Kirschstein's private museum address. We know his museum was on Nikolassee Street[13] in the Schlachtensee neighborhood of Berlin.

Point of origin

In Allaire's assessments, she notes Schönlanke as the point of origin. Schönlanke partially corroborates with Guttman's assertion that the ark had been from Posen. Schönlanke (today Trzcianka) is connected to Posen. Not far from Posen, Schönlanke was part of an eastern collective of heavily German towns on the outskirts of Posen. The Jewish community of Schönlanke was small but significant.

The sender

Allaire identified the sender's name as "H. Galinger." Databases, including an alphabetical index of names collected in the Poznań Population Registry from 1870–1931, and newspapers revealed nobody associated with this name. However, after searching for the name in German newspapers, reading the old German script from the period, and consulting with an archivist (Aleksandra Sajdak) from the Jewish Historical Institute Archives in Warsaw, a closer inspection of the German font revealed a different name. An "S" and "G" look very similar (image below). I have determined with complete certainty that the letter is an "S," and therefore the full name should read "H. Salinger." The fragmentary shipping label set in motion a close study of the ritual life of Schönlanke and the man referred to as H. Salinger, the head of the Chevre Kaddisha, and the elders of the Kehillah of Schönlanke.

[13] Osborn, Max. Der Israelit. 62 (1921). Heft 10 (10.3.1921) http://sammlungen.ub.uni-frankfurt.de/cm/periodical/pageview/2525921?query=nikolassee%20kirschstein

Fig. 4. Notice that the "S" in Salinger and Schönlanke are exactly the same.

The point of origin: Schönlanke

By far, the most expansive historical accounts of the Jewish community of Schönlanke were written by Peter Simonstein Cullman in 2016 in *History of the Jewish Community of Schonlanke 1736-1940*, and by its former community rabbi, Rabbi Dr. M. L. Bamberger, in 1912 with *Geschichte der Juden in Schönlanke*, which documents the Jewish community of Schönlanke from its founding in 1739 to 1912. Cullman's work pulls mostly from Bamberger's earlier publication; however, Cullman does include some new material (mostly interview material of Holocaust survivors from Schönlanke) not commented on by Bamberger.

Geschichte der Juden in Schönlanke gives a detailed description of the old shared prayer space of the Chevre-shul (the title given to the town's historic Beit HaMidrash[14]) and the old synagogue. As described by Rabbi Bamberger, on the inside, an "almemor (standing platform) was in the middle . . . [and] the walls of the synagogue were whitewashed, the floor covered with bricks. On the ceiling there were pictures of the sun, moon and stars and the twelve images of the zodiac."[15] The classical folkloric iconography (similar to that which appears on the ark) was archetypal of Holzsynagogen (wooden synagogues) in Germany and Poland during the period.

[14] Bamberger, M. L. *Geschichte der Juden in Schönlanke*. Berlin. Verlag von Louis Lamm. 1912. 26.
[15] Ibid.

The Chevre-shul, referred to by Bamberger (and later on by Cullman) as the Beth HaMidrash, would proceed to its second location (Fig. 6), later inaugurated in 1869.[16] The original location (built sometime after the founding[17] of the community in 1739[18] [19] and 1772[20]) was connected by a corridor hallway to the "old synagogue" (originally built in 1740[21], burned down and was rebuilt in 1759[22] and again in 1823[23]). The Chevre-shul and old synagogue shared a ritual prayer space where the Aron HaKodesh stood.[24] Descriptions if this space from *Geschichte der Juden in Schönlanke* and newspapers (see *"The Chevre-shul vs. Religious reform"*) describe the space housing the Aron HaKodesh acquired by HUC. Eventually, though, the old synagogue was torn down (1882),[25] and the Chevre-shul/Beth HaMidrash was relocated (1869), taking with it many ritual items,[26] including, it is believed, the Aron HaKodesh. The "new synagogue"[27] (otherwise known as "the Temple")[28] was built anew within a year[29] upon

[16] Der Israelite. 10 (1869). Booklet 41 (10/13/1869). http://sammlungen.ub.uni-frankfurt.de/cm/periodical/pageview/2463271?query=Sch%C3%B6nlanke%20cohn%20beth
[17] Bamberger identifies the year of the Jewish community's founding as 1739. Bamberger, M. L. *Geschichte der Juden in Schönlanke*. Berlin. Verlag von Louis Lamm. 1912. 2.
[18] Bamberger notes Beit Midrash records going back at least until 1772. Bamberger, M. L. *Geschichte der Juden in Schönlanke*. Berlin. Verlag von Louis Lamm. 1912. 27.
[19] Hebrew act of buying and selling a plot in Trzcianka. Fig. from the M. Hlebionek collection. Believed to be dated from the 1700s. See https://wirtualnemuzeumtrzcianki.trz.pl/book/export/html/688
[20] Bamberger does not speculate as to when the Beit HaMidrash was established. He merely notes it was already established by 1772. Bamberger, M. L. *Geschichte der Juden in Schönlanke*. Berlin. Verlag von Louis Lamm. 1912. 27.
[21] Noted by Cullman 25. P.S. Cullman, History of the Jewish Community of Schonlanke; 1736-1940. Avoteynu. New Haven, Ct. 2016.
[22] Ł. Nowak, *Trzcianeckie konflagracje, czyli o pożarach folwarku, wsi i miasta Trzcianka (Trzcionka/Schönlank) w XVIII w.* Kronika Ziemi Trzcianeckiej. 9 (2019). 37–47.
[23] Bamberger, M. L. *Geschichte der Juden in Schönlanke*. Berlin. Verlag von Louis Lamm. 1912. 26.
[24] Ibid.
[25] Ibid.
[26] Der Israelite. 10 (1869). Booklet 41 (10/13/1869). http://sammlungen.ub.uni-frankfurt.de/cm/periodical/pageview/2463271?query=Sch%C3%B6nlanke%20cohn%20beth
[27] Bamberger, M. L. *Geschichte der Juden in Schönlanke*. Berlin. Verlag von Louis Lamm. 1912. 26.
[28] Noted by Cullman. 113. Cullman, Simonstein Peter. History of the Jewish Community of Schonlanke: 1736-1940. Avotaynu. New Haven, Ct. 2016.
[29] Ibid.

the site of the old synagogue. Constructed for the Temple was a new Aron HaKodesh and a significantly different interior layout than before.[30]

The Chevre-shul vs. Religious Reform

As early as 1849, newspapers began commenting upon the painfully slow development of religious reforms in Schönlanke. The articles comment specifically on the building and its rabbinic leadership. One article suggests that "if you look into the synagogue, you will not find any reform introduced, not even the slightest one. The old-new building is rather only old or even already outdated."[31] The article highlights that even though the building was "new," it was perceived as "old" based on aesthetics.[32] The article continues to suggest that the rabbi of the community (Rabbi Löbel Blashke) was "old"[33] and "even the most innocent reforms and institutions, which, according to the times, refresh religious feeling and have an aesthetic form, search in vain for a follower and representative."[34] Additionally, the article is critical of the close proximal relationship between the old synagogue and the Chevre-shul.[35]

Another article from 1852 comments similarly upon a funeral service for three men led by Rabbi Blashke. It is clear from the description that the ceremony's aesthetic choices fit the shul (maybe the rabbi) but not the *kahal*. The service was aimed at producing a mystical atmosphere, as reflected by the zodiac symbols painted on the ceiling and on the Aron HaKodesh. During the solemn service, the rabbi stood before the Aron HaKodesh with a black-

[30] Refer to Fig. 4.
[31] Allgemeine Zeitung des Judenthums. 13 (1849). Heft 4 (22.1.1849). http://sammlungen.ub.uni-frankfurt.de/cm/periodical/pageview/3239966?query=sch%C3%B6nlanke%20reform
[32] Ibid.
[33] Ibid.
[34] Ibid.
[35] Ibid.

draped *schtender* (standing desk), and candles lit the entire synagogue.[36] The description of the service elicited a sort of "awe"[37] befitting a mystical ceremony, and it is hard to imagine that it fit modern sensibilities at the turn of the century. Fundamentally, Blaschke (rabbi from 1835 to 1861)[38] and his successor, the aged Rabbi Wäldler (rabbi from 1865 to 1904)[39] struggled with the changes of modernity felt by German Jewry, but Bamberger (ascending to leadership in 1905)[40] was slightly different.

The news clippings and writings of Bamberger underscore the changes occurring in Germany during the turn of the 20th century. Times were fundamentally changing. Religious reforms were affecting Jewish life in Schönlanke. This is apparent from the new layout of the new synagogue and from Bamberger's writings. In the image (Fig. 4), notice the Aron HaKodesh from the new synagogue, or the Temple,[41] and the new layout of the synagogue. There is no longer an almemor, and the interior is purposefully simple. The essential layout inside the new synagogue was a disassociation of sorts from its predecessor. The former prayer space was imaginative and mystical, and it evoked a sense of awe. The changes made to the layout reflected a formal alignment with contemporary tradition.

Fig. 5. Image provided by Virtual Trzcianka Museum of "the new synagogue" of Schönlanke.

Some aspects of reforms and modernity were being embraced as far as the rabbinate. Although trained as an orthodox rabbi, Bamberger was looking at Judaism from a different

[36] Allgemeine Zeitung des Judenthums. 16 (1852). Heft 7 (9.2.1852) thttp://sammlungen.ub.uni-frankfurt.de/cm/periodical/pageview/3242394?query=Sch%C3%B6nlanke%20januar%2021
[37] Ib
[38] Ibid. 19-21
[39] Ibid. 22
[40] Ibid. 23
[41] Noted by Cullman. 113. Cullman, Simonstein Peter. History of the Jewish Community of Schonlanke: 1736-1940. Avotaynu. New Haven, Ct. 2016.

perspective than that of his predecessors. His very authorship of *Geschichte der Juden in Schönlanke* suggests a different type of engagement with Judaism. Bamberger was university educated, and he offered lectures on Jewish history[42] and scholarly literature for Berlin publishing houses.[43] In many ways, Bamberger was engaging in *Wissenschaft des Judentums*, yet he was carefully walking a fine line; thus, he remained loyal to his orthodox upbringing.[44] His academic work reflects a sensitivity to modernity.

The sender: Who was H. Salinger?

The next step in this study was to discern more about who H. Salinger was. In his 1912 work, Bamberger identified a man named Heymann Salinger as a part of the current lay leadership. Salinger served as the elder of the Kehillah of Schönlanke in 1901–1904[45] and again in 1911.[46] In 1912, Salinger also chaired the Chevre Kaddisha.[47] The Chevre Kaddisha was connected to the Beth HaMidrash (initially known as the "Chevre-shul"[48]) in formal and fiscal ways.[49]

Advertisements

Augmenting the biography offered by Bamberger, we can also learn much about H. Salinger from his advertisements and news clippings. Specifically, Salinger put out

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[42] Translated by Stephen L. Polin. Mitteilungen aus bem Verband der Vereine fur Judische Geichichte und Literatur in Deutschland. 1912. Heft 20 (December 1912). Verzeichnis der Vereine fur judische Geschicte und Literatur I Deutschland und Bericht uber deren literarische Tatigkeit im Winterhalbjah 1911/1912. http://sammlungen.ub.uni-frankfurt.de/cm/periodical/pageview/2379233?query=rabbi%20bamberger%20schonlanke

[43] Bamberger, M. L. *Geschichte der Juden in Schönlanke*. Berlin. Verlag von Louis Lamm. 1912.

[44] Refers to Bamberger's commitments to Orthodoxy. Translated by Stephen L. Polin. Judische Press. 11 (1925). 28 (10.7.1925). http://sammlungen.ub.uni-frankfurt.de/cm/periodical/pageview/2633701?query=bamberger%20koln%201925

[45] Bamberger, M. L. *Geschichte der Juden in Schönlanke*. Berlin. Verlag von Louis Lamm. 1912. 15

[46] Ibid.

[47] Ibid. 32

[48] Ibid. 26.

[49] As the name may suggest, the original Chevre-shul, and later Beth HaMidrash, had a close relationship to the Chevre Kadisha. On p. 112 of *History of the Jewish Community of Schönlanke*, Cullman notes that the Chevre Kaddisha paid the salaries of the Beth HaMidrash.

advertisements to the Berlin Jewish community. Included is one advertisement from 1903 (Fig. 5). The advertisement was put out in the *Judische Rundschau,* offering a teaching position for a Jewish studies teacher (it is presumed for the newly repurposed Beth HaMidrash).


In Folge der staatlichen Anstellung des hiesigen Religionslehrers ist diese Stelle wieder zu besetzen.
Reflektiert wird auf einen Rabbinatskandidaten oder seminaristisch gebildeten Lehrer, der einen guten hebräischen Unterricht erteilen kann. Anfangsgehalt 1200 Mk. jährlich und ca. 300 Mk. Nebeneinkommen. Meldungen nimmt entgegen
Der Synagogenvorstand
H. Salinger in Schönlanke.

Fig. 5. Advertisement found in *Judische Rundschau*, vol. VII, 13 Nov. 1903, p. 46.

The advertisement speaks beyond its text. The fact that Salinger was engaging with the Berlin Jewish community should be noted. Kirschstein was no stranger to this newspaper, as advertisements of his personal collection on Nikolassee[50] and publication *Judische Graphiker*[51] appear in the same newspaper. The newspaper connects Kirschstein and Salinger's advertisements to one another.

Cullman

[50] Translated by Stephen L. Polin. Fuhrung Dr. Toeplitz…" Judishe Rundschau. XXVII (1922). Heft 11-12 (14.2.1922). http://sammlungen.ub.uni-frankfurt.de/cm/periodical/pageview/2673079?query=kirschstein.
[51] Salinger, "In Folge der staatlichen Anstellung des hiesigen Religionsciehres ist diese Stelle wieder zu besetzen" Advertisement found in Judische Rundschau. XXIV (1919). Heft 71. http://sammlungen.ub.uni-frankfurt.de/cm/periodical/pageview/2670201?query=kirschstein

Cullman includes in his study interview material with the remnants of the community (dispersed mostly in America). One such person, Nelly Berg, returned to Schönlanke in 1996. Lorraine Wulfe produced a map[15] shortly afterward documenting the layout of the town as Nelly Berg remembered it from the 1920s. Included in this study is an image of the map (Fig. 6).

Fig. 6. Map drawn by Lorraine Wulfe based on a description provided by Nelly Berg upon returning to Schönlanke in 1996. Published by Peter Simonstein Cullman.

As highlighted in the image, the Salinger family owned a shop adjacent to the Beth HaMidrash. As may also be noted, the journey from Salinger's to the railway station was very simple. Salinger's proximity to the Beth HaMidrash, in addition to his elected administrative oversight through the Chevre Kadisha would suggest that the Aron HaKodesh departed from the Beth HaMidrash (initially known as the "Chevre-shul"[52]).

Salinger and Kirschstein

Under the circumstances of Jewish reforms, the Jewish community of Schönlanke was fundamentally changing. As Cullman notes from Nelly Berg's conversations and interviews, the younger generation was dissatisfied with the ritually conservative practices of the community.[53]

[15] Map drawn by Lorainne Wulfe based on a description provided by Nelly Berg upon returning to Schönlanke in 1996. Cullman, Simonstein Peter. History of the Jewish Community of *Schonlanke*: 1736-1940. Avotaynu. New Haven, Ct. 2016. 455.

[52] It should be noted, as the name may suggest, the original Chevre-shul, and later Beth HaMidrash, had a close relationship to the Chevre Kadisha. Additionally, Cullman notes on p. 112 that the Chevre Kaddisha paid salaries to the Beth HaMidrash.

[53] Cullman, Simonstein Peter. History of the Jewish Community of Schonlanke: 1736-1940. Avotaynu. New Haven, Ct. 2016. 122

In 1897, during the ascent of Heymann Salinger into communal leadership roles,[54] the new struggling Beth HaMidrash was repurposed by the synagogue for administrative and educational purposes, and the Beth HaMidrash was closed.[55] The building where the ark departed from (Fig. 7), the former Beth HaMidrash, still stands as of 2021.

Fig. 7. The building of the former Beth HaMidrash of Schönlanke. Image provided by Jan Nowak of Trzcianka in 2021

The Aron HaKodesh was shipped to Salli Kirschstein during this period of transition (corresponding to the period when he was building his collection).[56]. Kirschstein and Salinger both published advertisements in the same Berlin-based Jewish newspaper. It is possible that they learned of each other by virtue of these advertisements. Kirschstein was originally from Posen; the connection to the town of Schönlanke, as an outlier town of Posen, was quite personal. Kirschstein's sentiments and connection to Posen and its outlying towns were part of a larger national sentiment felt in Germany, which tried to rebrand Posen and its outlying towns as German rather than Polish.

The German novelist Max Kretzer wrote about Kirschstein and Salinger's transaction of Judaica (it is assumed of the ark) in his novel *Irrelichter und Gespenster*. Kretzer was Posen-born novelist and Christian social realist. His writings often romanticize anti-Semitism and

[54] USHMM. RG-15.122M. Rejencja Pograniczna Poznan-Prusy Zachodnie w Pile (Sygn. 307), 1871-1945. Regierung Posen-Westpreussen in Schneidemuehl – RG 15.122M. File number 348.
[55] Bamberger, M. L. *Geschichte der Juden in Schönlanke*. Berlin. Verlag von Louis Lamm. 1912. 26.
[56] Dr. Grace Cohen Grossman. The Kirschstein collection and the HUC-JIR. The Chronicle #66. Page 30. 2005. http://huc.edu/flipbook/chronicle/66/files/assets/basic-html/page30.html

lament on the transitions of smaller towns and businesses to an industrialized world. *Irrelichter und Gespenster* speaks to both themes. At this moment, it is unknown how Kretzer had firsthand knowledge of the Jewish world, of the sale of the ark, or full depth of his account. Kretzer and Kirschstein were both born in Posen. Kretzer does not paint Kirschstein in a positive light in his writing. This is a subject for further study.

Kirschstein's personal correspondences and written material reveal his motivations for building his private collection of Judaica. Included in archival materials are some of the correspondences between Kirschstein and David Simonsen, a letter written by Kirschstein documenting his collection (discussed by Guttman in 1991), and an article by Kirschstein in 1928 in *Jüdisches Jahrbuch für Groß-Berlin*. It is clear from these correspondences and written material that Salli Kirschstein was motivated by *Wissenschaft des Judentums* in acquiring the items of his collection.

One of Kirschstein's articles from 1928 in *Jüdisches Jahrbuch für Groß-Berlin* offers his fuller vision of his decision to build a private collection of Judaica. Although Kirschstein had already sold his collection by 1926, he had not yet established his final collection (which only went on public exhibit in 1932).[57] It is clear from the article that Kirschstein was trying to fill a void he saw in Berlin. He remarks that "in Ethnological Museum in Berlin all peoples, together with the cultural forms that sprang from their spiritual and emotional lives, are represented; but since my early youth I missed the equal capturing and representation of Judaism."[58] Speaking

[57] Die Judaica-Sammlung S. Kirschstein, Berlin: Edited by Hugo Helbing. Kultgeräte für Haus und Synagoge, Manuskripte, Gemälde, Miniaturen, Graphik, Urkunden, Bücher ; 12. bis 14. Juli 1932 — München, 1932. https://digi.ub.uni-heidelberg.de/diglit/helbing1932_07_12/0001/thumbs

[58] Translated by Stephen L. Polin. Kirschstein, Salli. Wie hinder wir den Untergang alter judischer Kulterguter? Jüdisches Jahrbuch für Groß-Berlin. 1928. 88. Internet Archieve provided by Leo Baeck Institue. https://archive.org/details/JdischesJahrbuchGrossBerlin/mode/2up

specifically to the Aron HaKodesh, his vision aimed to convey "how much has been lost! What do we still know of the Jews of past centuries? […] the structure and furnishing of a synagogue, the *Aron HaKodesh*."[59] It is clear that Kirschstein is speaking to a feared loss of culture and identity. It was his belief that a museum exhibit would enshrine this identity, protecting it from destruction.

Dr. Guttman documented and translated Kirschstein's description of items from his personal collection on Nikolassee. In his letter, Kirschstein emphatically remarks calling upon *Wissenschaft* in the name of "science and secular knowledge"[60] for Judaism. The word choice of *Wissenschaft* ends a five-page report of Kirschstein's documentation of his collection. It is emphatic, and there are several exclamation points, suggesting that Kirschstein saw his collection tied to *Wissenschaft des Judentums*.

Conclusion

[59] Ibid. 92.
[60] Kirschstein's letter translated by Gutmann in Gutmann, Joseph. The Kirschstein Museum of Berlin. Jewish Art. Volume sixteen / seventeen. 1991. Journal of the Center for Jewish Art. The Hebrew University. Jerusalem. 176.

Upon arriving in Kirschstein's collection, the ark was centered at the dramatic finale to his exhibit. In 1926, Dr. Max Osborn wrote and published an article reviewing Kirschstein's museum in Berlin and documenting the sale of the Kirschstein collection to Oko. Osborn comments on the Aron HaKodesh featured in Kirschstein's exhibit, noting that the exhibit led from the smaller objects to the larger ones and ended at the sanctuary. In the sanctuary, he remarks, is the Aron HaKodesh from "a synagogue from a small town in the former province of Posen, richly and luxuriously decorated with openwork wood carvings, colored painting and gilding."[61] We now know the name of that small town was Schönlanke and that the synagogue referred to the old synagogue associated with the Chevre-shul. Ironically, it was Kirschstein's decision to sell the ark to HUC rather than to a European museum to save it from certain destruction during the Nazi period. Kirschstein, suffering from financial pains, sold his collection, only fulfilling his dream of a public museum in 1934, just before the destruction of European Jewry.

Fig. 7. Image taken of the Kirschstein collection leading up to the Aron HaKodesh.

The story of the Chevre-shul is but a drop in an ocean of similar stories. Every ark has its story. The journey of discovery for HUC's ark was not simple. The destruction of European Jewry made much of this story challenging to discover. Without the aid of restitution organizations and the USHMM, this study would have been impossible. Unfortunately, we have even less to work with for most of the wooden synagogues of Europe. None survived the war. In the case of Sidra, Poland, not only did the ark not survive, but neither did any documentation,

[61] Dr. Osborn, Max. Der Schild: Zeitschrift des Reichsbundes Judischer Frontsoldaten. Issue 11 (15/03/1926). http://sammlungen.ub.uni-frankfurt.de/cm/periodical/titleinfo/5448747

aside from a few photos and a blueprint of the interior. Each of the wooden arks told an impressive story. Each story was an odyssey similar to that of the ark from Schönlanke. However, now, with the Opening the Ark Project, we are part of a much similar story. We have begun our own odyssey, launched by the Opening the Ark Project.

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*(*Image 3) Advertisement found in Judische Rundschau. VII (1903). Heft 46 (13.11.1903). http://sammlungen.ub.uni-frankfurt.de/cm/periodical/pageview/2657625?query=h.%20salinger

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(Image 6) Image taken of the Kirschstein collection leading up to the Aron HaKodesh on 174 in Gutmann, Joseph. The Kirschstein Museum of Berlin. Jewish Art. Volumn sixteen / seventeen. 1991. Jounal of the Center for Jewish Art. The Hebrew University. Jerusalem.

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V. Appendix

A. Grant proposals

B. Scientific studies of paint and wood and colorized images of the wooden synagogue from Sidra, Poland

A. Grant Proposals

Reconstructing Judaism/Auerbach Foundation

Reconstructing Judaism's Auerbach Ignition Grant Application

Provide cover letter with contact information
Limit application to 2 pages – double spaced

Project Overview

1. A 1-sentence summary
   Rebuilding an aron hakodesh from the Polish-Lithuanian Commonwealth in Ohio.

2. The problem: What is the problem or challenge you are trying to solve? Why is this problem or challenge important? Elaborate as needed.
   The problems being addressed are multi-layered.

Responding to

- **COVID-19**. Community involvement in this project will have a therapeutic effect on people. The endless constraints of isolation must be mitigated by creative endeavors, and this project appeals to many creative angles. Whether contributing to the project by painting a panel or through hand carving wood, this project will give many an opportunity to engage with creative Jewish expressions of art.
- **Artists and craftspeople.** Interviews done in preparation for this project revealed a common dilemma often faced among this key demographic; they feel deprived of visual artistic expression within congregational life. They feel disassociated from synagogue politics and want to be able to contribute their skills to something meaningful, something Jewish for our people.
- **Holocaust education**. At the same time, Holocaust education is at a critical juncture point. The project, will have an educational outcome. Upon completion the ark will be exhibited in Cincinnati, at the Skirball Museum in February. The exhibition will document the wooden arks of the Polish-Lithuanian commonwealth.

3. **Overview of Solution: What's your project?**

The Project...

Considering the trends described, I am undertaking the "Opening the Ark Project," which will reconstruct one of the great wooden arks of Poland right here in America. The ark (images attached) was one of the jewels of world Jewry and destroyed by the Nazis in 1942 in Poland. It was towering and coated in vibrant colors. With Polish, Sephardic and Russian influences, it stood as a testament to a Jewish dialogue and to Jewish art, artistry, and carpentry.

The reconstruction effort is an blank canvas for people wanting to experiment with a new kind of relationship to Judaism. As a matter of engagement, the project reaches inside (and even potentially outside) our Jewish community and involves people in new ways. From architects providing blueprints to digital colorists, artisans, and artists who will paint the ark, Jews—and even some who are adjacent to Jews—will be involved in this project.

The final phase of ark construction will include painting complex details upon the hand-carved wooden ark and its intricate wooden overlays and panels. For this, the project participants will convene at my work studio and local synagogues (across denominations). At each location, craftspeople, artists, and specialists from Ohio, Pennsylvania, and Kentucky will paint sections of the ark according to the guidelines set by digital colorists, who will have been able to colorize original black-and-white photos of the ark from Poland. So far, I have woodworkers and painters who have already volunteered for the project. The excitement in their eyes is powerful!

JTBD (Who do you seek to serve, and why)

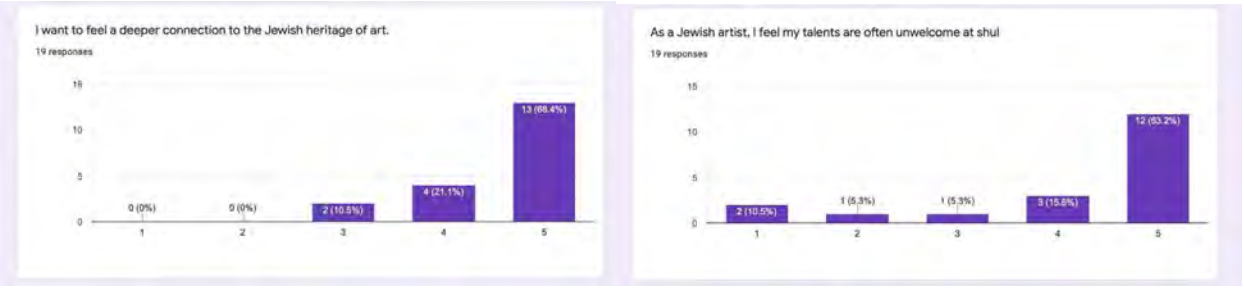
1. **Who is the main constituent group for your project? Why did you choose this constituent group?**

My main constituent group is artists, artisans, and craftspeople. I chose this group of people because I myself am an artist. I have had my hand on the pulse of this demographic

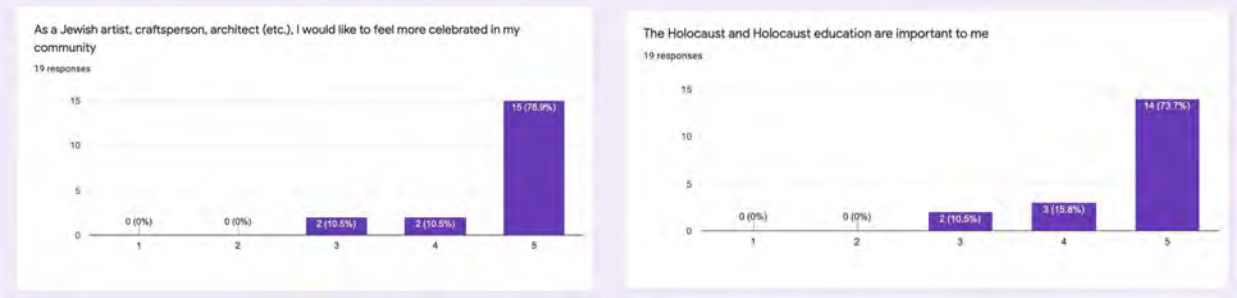
for a long time; I held my first art exhibition at 13 in Florida. Over the years, my artwork has also been exhibited in Philadelphia and New Jersey. My father is an artist as well. He has always struggled with feeling included in synagogues and never felt a sense of belonging to any shul.

2. **What are the Jobs to Be Done of your constituent group? How did you discern these insights?**

Over the past few years of my experience in congregational life, congregants have repeatedly approached me in search of something new: Jewish art. More specifically, in preparation for this project, I interviewed Jewish and Jewish-adjacent artisans, painters, woodworkers, handymen, general contractors, architects, and engineers. **A Google poll revealed the following staggering statistics:**



Key: 1-5 indicate from 1 (No) → 5 (Yes)



Key: 1-5 indicate from 1 (No) → 5 (Yes)

Your Solution

1. What is your solution to these problems? What features help constituents meet their needs, relieve pains, and create gains?

The statistics suggest Jewish artists desire a deeper connection to a Jewish heritage of art, that they feel often unwelcome in synagogue life. Additionally, Jewish artists often do not feel celebrated in their communities. This project is an opportunity for a disenfranchised segment of our community to feel empowered. A few artists polled and interviewed are even volunteering a large part of their summers to work on this project.

2. **What makes your project unique?**

No ark from a wooden synagogue has been documented or recorded as surviving the war, and no one has ever rebuilt an ark from one of the wooden synagogues of Europe. A limited number of masonry synagogues from the Polish-Lithuanian Commonwealth did survive the war, but their arks and construction techniques were much different from those of the wooden synagogues.

Your why

1. **Who are you? Why does this project matter to you, personally/spiritually/emotionally/ etc.?**

This project means a lot to me because I am an artist myself. My father is also an artist. Even though I am an artist, I am sometimes reserved about my talents and abilities. Too often, I have heard, “There’s no such thing as Jewish art” or other damaging and hurtful polemics. The polemic was so damaging to my father that he never found a Jewish community to be a part of. He began working on a stained glass project at his family’s conservative shul, but the synagogue board and shul politics actually threw out the whole project. He was so dissatisfied by the experience that he never affiliated elsewhere, and I grew up mostly unaffiliated.

APPLICATION FORM: Soviet Jewry Struggle Grant

You can apply in English, Hebrew or Russian
If you don't receive a confirmation within 24 hours, please make sure that it was sent to the correct email address.
Date
May 19, 2020
First Name
Shmuel
Last name
Polin
Phone number
609-468-1768
Email
shmuelpolin@gmail.com
Confirm Email
shmuelpolin@gmail.com
Institute name
Adath Israel Congregation
Institute Address
Rabbi
Title of the lesson/activity
Jewish Folk Art During the FSU
Describe the lesson: how you taught it, and what were the students responses? How do you feel it affected them?

The lesson plan was created as part of an educational series of lessons centered on synagogue artists and artisans from the areas spanning the FSU. The lesson is part of the educational component to the *Opening the Ark* project of Cincinnati. The *Opening the Ark project* is a project based out of Cincinnati, tied to the Hebrew Union College. The project is currently reconstructing one of the great arks of Ashkenazi Jewry destroyed in the Holocaust (in 1942). The ark will be completed this summer. The ark being rebuilt was originally built not far from Bialystok. During the summer, woodworkers and artists will be convening at my shop to work on the project. Please see the attachments for an image of the Aron HaKodesh we are building.

The finished product will be a 17 foot tall Aron HaKodesh, which will be on exhibition at the Skirball Museum in Cincinnati. There will be an educational component to this project in

which the Refusnik Project will fit in. I will be offering lessons and classes about the history of the wooden arks of Europe at my synagogue, Adath Israel of Cincinnati. A full lesson will be devoted to the Jewish artists who survived the destruction of the Nazis and had to change their craft under Soviet oppression. I actually interviewed an artist from the FSU who worked on synagogue architecture before the war, but afterward and under Soviet oppression, he had to change professions, only to return to his trade after coming to America.

I highlight the story of the interviewed artist and other Jewish artists from the FSU in my lesson. It should be noted, there is a personal investment tied to the lessons. My family is from the FSU, and my father is an artist. Lessons may be provided if desired. The lessons will include art activities and pull from some content at https://www.refusenikproject.org/lesson_plans/identity-and-religion/ . I have shared the lessons preliminarily with colleagues, and student and they want to be part of the project.

Men of Reform Judaism Grant

Men of Reform Judaism's Reform on Campus Grant

Shmuel Polin

October 9, 2020

1. **Overview: What's your project?**

Earlier this year, I began crowdfunding and soliciting grants from national Jewish organizations for a project I have devoted myself to. The project, known as Opening the Ark, responds to some of the more troubling trends identified in Pew Research studies and the jeopardized status of Holocaust education in the United States in an impressive way. The project is in the finishing stages of rebuilding one of the wooden arks of the Polish-Lithuanian

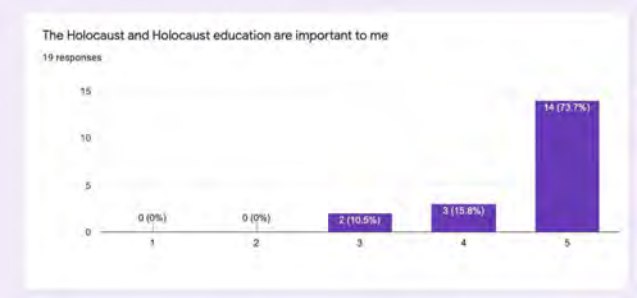
Commonwealth. The ark (images attached), from Sidra, Poland, was one of the jewels of world Jewry and was destroyed by the Nazis in 1942. It was towering and coated in vibrant colors. With Polish, Sephardic, and Russian influences, it stood as a testament to a Jewish dialogue with art, artistry, and carpentry.

To the surprise of many, a history entrenched in Reform Judaism is entrenched this project. The study of wooden synagogues and of Aronot Kodesh from the Polish-Lithuanian Commonwealth owes a debt of gratitude to our movement. In 1897, propelled by a fundamental devotion to Wissenschaft des Judentums, Salli Kirschstein acquired an Aron HaKodesh that once stood in a wooden synagogue outside of Posen in Schönlanke. In 1925, the ark was sold to HUC-JIR, and today it stands in the Scheuer Chapel on the HUC-JIR campus in Cincinnati. The ark is the last of its kind from a wooden synagogue; the rest were destroyed in the Holocaust and cannot be studied in person.

2. **Constituent Profile: Who is the main constituent group for your project? Why did you choose this constituent group?**

At the moment, there are no required (or offered) courses in Holocaust education at the Cincinnati campus. Support for this project will serve as an opportunity to strengthen Holocaust education among our Reform leadership and solidify the bonds of Reform Judaism to the historical study of Jewish life in Poland. In preparing this proposal, I conducted a study of students from the Cincinnati campus, revealing that Holocaust education was important to them. Upon completion, this project will benefit the students of the Cincinnati campus, as many are personally invested in the fabrication process of the ark itself: carving, painting, embroidery, etc.

Key: 1-5 indicate from 1 (No) → 5 (Yes)



3. **How can you help?**

Support for this project will enrich the leadership of Reform Judaism as a valuable part of Holocaust education. Our students want to engage with Holocaust education in a new way; they are enamored by the historical connections of Reform Judaism to the study of Aronot Kodesh. I meet with our rabbinical students at my wood shop and studio every day to collaborate on this project. **Your fiscal support will help provide for the final supplies needed for our volunteers and students to paint and embroider the fully reconstructed Aron HaKodesh**. Upon completion, the ark will serve further educational goals as it will begin by being on exhibition at the Skirball Museum and then be moving onto the Ish Festival of Cincinnati.

4. **What makes your project unique?**

No ark from a wooden synagogue has been documented as surviving the war, and no one has ever rebuilt an ark from one of the wooden synagogues of Europe. A limited number of masonry synagogues from the Polish-Lithuanian Commonwealth did survive the war, but their arks and construction techniques were much different from those of the wooden synagogues.

5. **Who are you? Why does this project matter to you, personally/spiritually/emotionally/etc.?**

This project means a lot to me because I have a background in Holocaust Education. I completed my master's in Holocaust Education, and the potential exists to pursue the topic in our communities. The challenges described by the Pew studies and the troubling statistics on the status of Holocaust education need to be rethought as an opportunity for our communities. Projects such as Opening the Ark look to a new horizon in Holocaust education, and I hope you will be a part of it!

B. Scientific studies of paint and wood and colorized images of the wooden synagogue from Sidra, Poland (see below).

Randy S. Wilkinson
Wooden Artifacts Conservator

Wood Identification Report

Title/Object:
Torah Ark
Accession number:
N/A

Artist/Maker:
Unknown

Execution date:
9/17/2020

Curator:
Abby Schwartz
Director, Skirball Museum

Date of Report:
10/1/2020
Wood identified as:
Tilia spp. Linden , also known as Lime

Sample Number:
#1
Date and location of examination:
The samples were taken by Elizabeth Allaire of Allier Fine Art Conservation, LLC. September 17, 2020

Examination Conditions:
Microscopic observations: All samples were view both in reflected light and transmitted light. (Dino-lite AM413ZTAS, 20x-220x and Amscope T670, 60x-600x)

Sample size and location:
Sample #1 was taken from the inside surface of the proper left door panel, near the bottom of the door, where the carved urn element meets the scrolled elements close to the hinges.

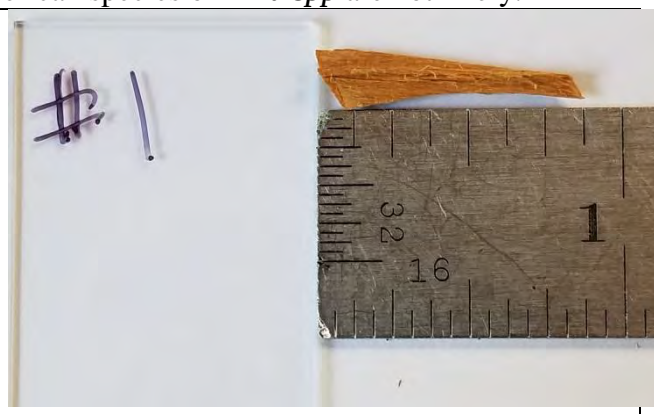
Macroscopic features:
The sample was sufficiently large enough to obtain very good information. It was light brown in color, fairly dense and diffuse porous.

Microscopic features:
- Diffuse porous, vessels in radial multiples, clusters, 30-74 µm observed
- Growth increments visible by 2-3 flattened cells
- Rays 1-5 seriate observed, flattened or “coffin like”
- Rays noded
- Fibers thin to thin-thick walled
- Parenchyma in short tangential bands, marginal with occasional dark contents
- Spiral thickenings present
- Intervessel pits are alternate

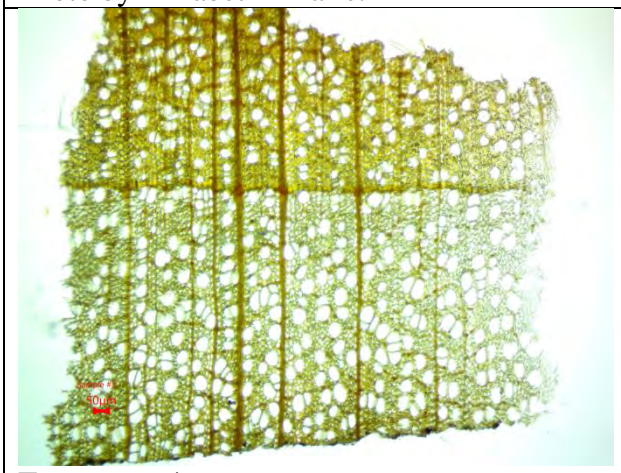
Other features or notes:
The sample #1 is consistent with the genus *Tilia spp* and is likely one of the most common species found in Europe, *Tilia cordata* Mill.*, Tilia platyphyllos* Scop, or *Tilia tomentosa* Moench.

also known as small-leaf, big-leaf lime and silver lime. Schweingruber, reports that it is not possible to separate the three species microscopically. Given the origin of the sample and that fact that the sample was fairly dense, the North American species of ***Tilia spp*** are not likely.

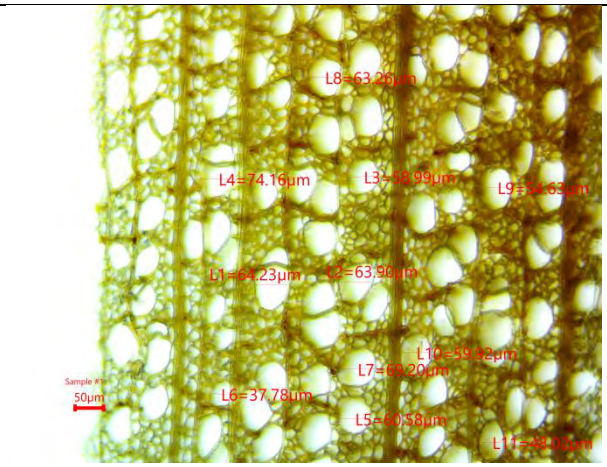
Location of sample #1: Proper Left door panel Photo by Elizabeth Allaire.



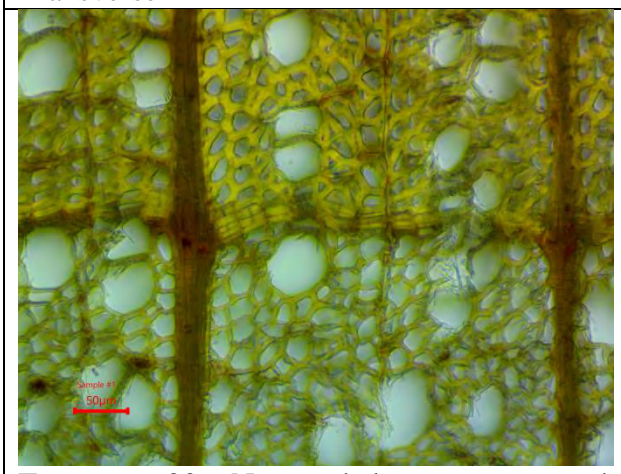
Sample #1



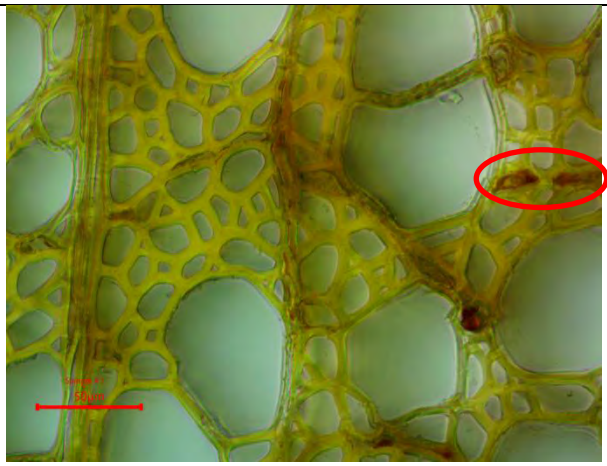
Transverse 4x



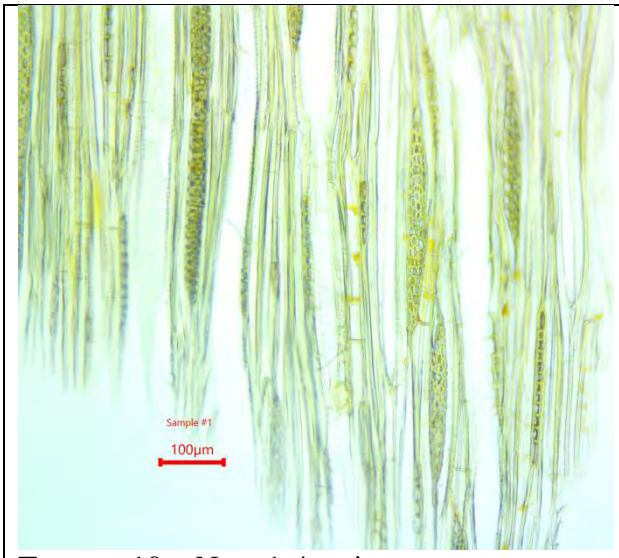
Transverse 10x with vessel diameter units



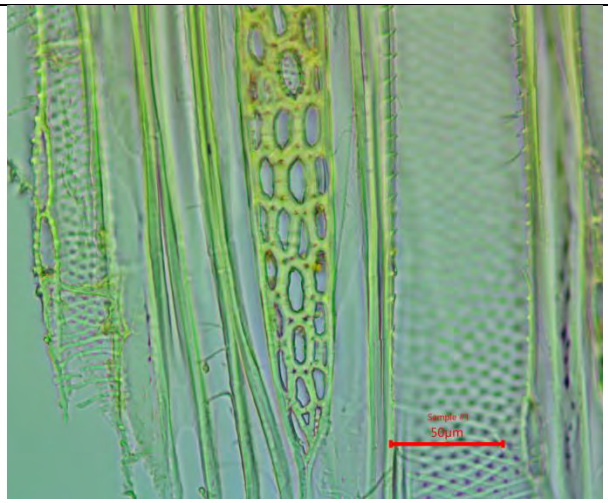
Transverse 20x: Note noded rays, compressed fibers at the growth ring boundary, and thin-thick walled fibers



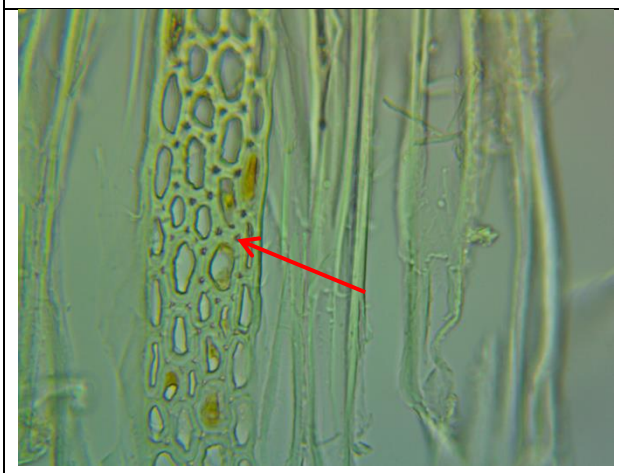
Transverse 40x: Note banded parenchyma with dark contents



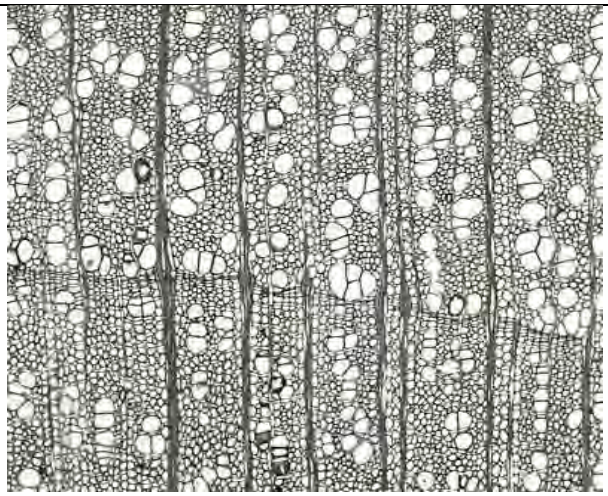
Tangent 10x: Note 1-4 seriate rays



Tangent 40x: Note alternate intervessel pits and helical thickenings



Tangent 60X: note intercellular spaces between ray cells. Not necessarily diagnostic but noted for future research



Transverse: *Tilia cordata* Mill. http://www.woodanatomy.ch/

References:

E.A.Wheeler, P. Baas & P.E. Gasson eds. 1989. *IAWA List of Microscopic Features for Hardwood Identification.* in IAWA Bulletin n.s. 10(3):219-332. Leiden.

E.A.Wheeler, P. Baas & P.E. Gasson eds. 2004. *IAWA List of Microscopic Features for Softwood Identification.* in IAWA Bulletin n.s. 25(1):1-70. Leiden.

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Hather, Jon G. 2000. *The identification of Northern European Woods,* London: Archetype.

Hoadley, R. Bruce. 1990. *Identifying Wood.* Newtown: Taunton Press.

Kribs, David,A. 1968. *Commercial Foreign Woods on the American Market.* New York: Dover.

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Panshin, A.J. and Carl de Zeeuw. 1970. *Textbook of Wood Technology, vol. 1.* 3rd ed. New York: McGraw-Hill.

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Wheeler, E.A., C.A. LaPasha, & R.B. Miller. 1988. Wood anatomy of elm (Ulmus) and hackberry (Celtis) species native to the United States. IAWA Bull. n.s. 10: 5—26

Conservator: _____

Randy S. Wilkinson
Principal
Fallon & Wilkinson, LLC
randywilkinson@att.net
860.884.7104

Randy S. Wilkinson
Wooden Artifacts Conservator

Wood Identification Report

Title/Object:
Torah Ark
Accession number:
N/A

Artist/Maker:
Unknown

Execution date:
9/17/2020

Curator:
Abby Schwartz
Director, Skirball Museum

Date of Report:
10/4/2020
Wood identified as:
Tilia spp. Linden , also known as Lime

Sample Number:
#2
Date and location of examination:
The samples were taken by Elizabeth Allaire of Allaire Fine Art Conservation, LLC. September 17, 2020

Examination Conditions:
Microscopic observations: All samples were view both in reflected light and transmitted light. (Dino-lite AM413ZTAS, 20x-220x and Amscope T670, 60x-600x)

Sample size and location:
Sample #2 was taken from the inside surface of the proper left door, at a vertical crack located on the upper horizontal carved gilded rectangle located above the urn.

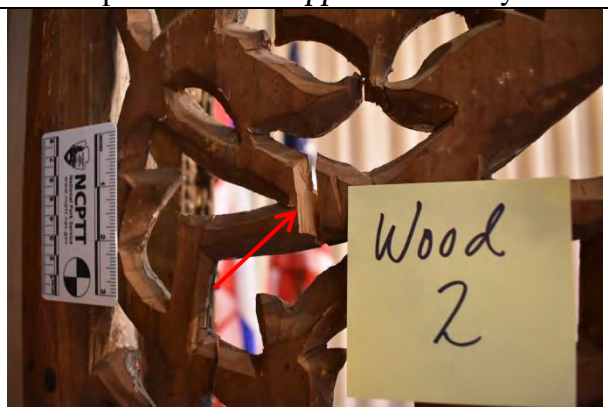
Macroscopic features:
The sample was sufficiently large enough to obtain very good information. It was light brown in color, fairly dense and diffuse porous.

Microscopic features:
- Diffuse porous, vessels in radial multiples, clusters, 30-74 µm observed
- Growth increments visible by 2-3 flattened cells
- Rays 1-5 seriate observed, flattened or "coffin like"
- Rays noded
- Fibers thin to thin-thick walled
- Parenchyma in short tangential bands, marginal with occasional dark contents
- Spiral thickenings present
- Intervessel pits are alternate

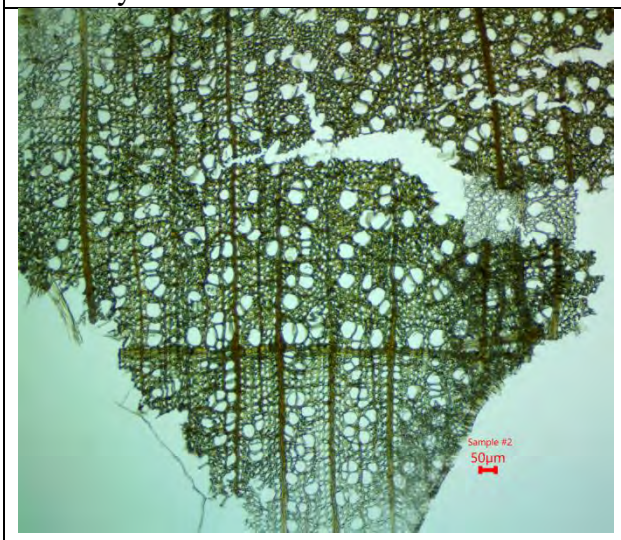
Other features or notes:
The sample #1 is consistent with the genus *Tilia spp* and is likely one of the most common species found in Europe, *Tilia cordata* Mill.*, Tilia platyphyllos* Scop, or *Tilia tomentosa* Moench. also known as small-leaf, big-leaf lime and silver lime. Schweingruber, reports that it is not

possible to separate the three species microscopically. Given the origin of the sample and that fact that the sample was fairly dense, the North American species of *Tilia spp* are not likely.

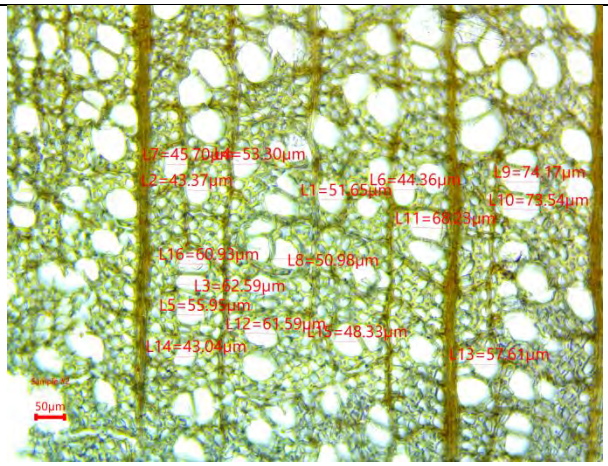
Location of sample #2: Proper Left door panel Photo by Elizabeth Allaire.



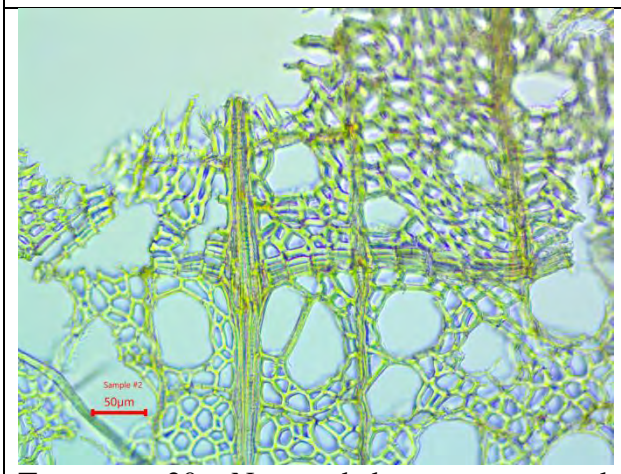
Sample #2



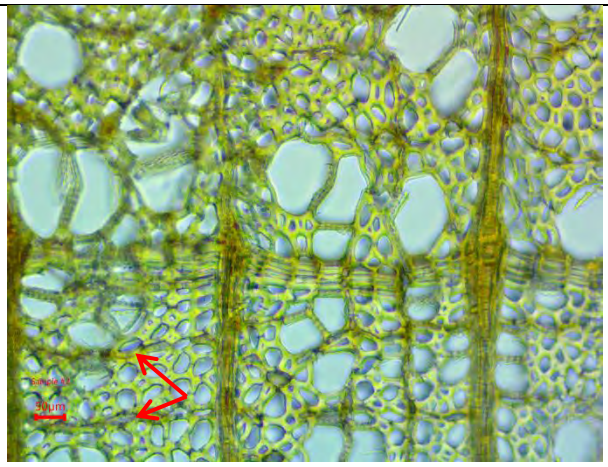
Transverse 4x: Diffuse porous, growth boundary evident



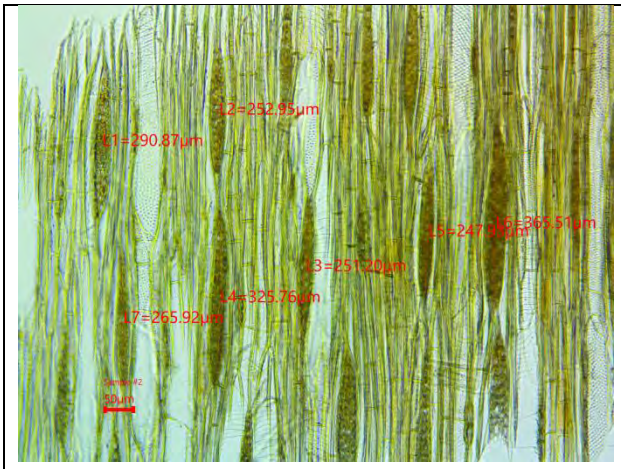
Transverse 10x with vessel diameter units



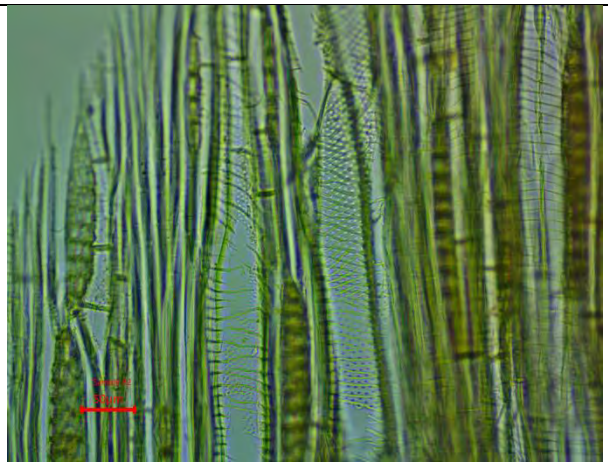
Transverse 20x: Note noded rays, compressed fibers at the growth ring boundary, and thin-thick walled fibers



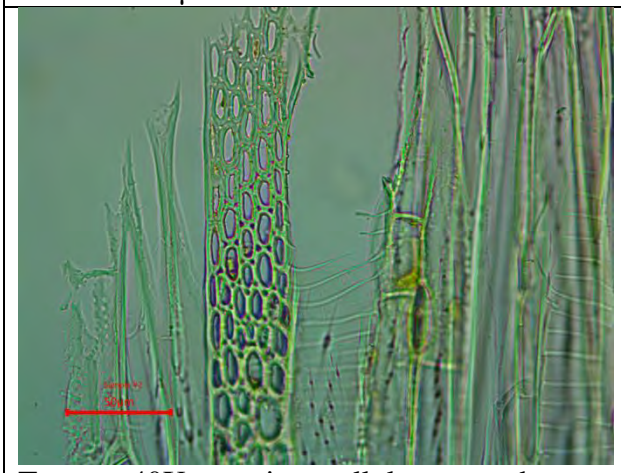
Transverse 20x: Note banded parenchyma with dark contents



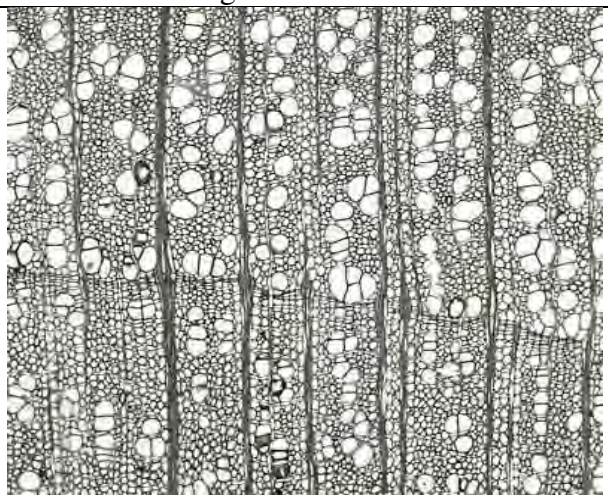
Tangent 10x: Note 1-4 seriate rays, ray heights in the 250-350 µm



Tangent 20x: Note alternate intervessel pits and helical thickenings



Tangent 40X: note intercellular spaces between ray cells and helical thickenings. Intercellular spaces are not necessarly diagnostic but noted for future research



Transverse: *Tilia cordata* Mill. http://www.woodanatomy.ch/

References:

E.A.Wheeler, P. Baas & P.E. Gasson eds. 1989. *IAWA List of Microscopic Features for Hardwood Identification.* in IAWA Bulletin n.s. 10(3):219-332. Leiden.

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Wheeler, E.A., C.A. LaPasha, & R.B. Miller. 1988. Wood anatomy of elm (Ulmus) and hackberry (Celtis) species native to the United States. IAWA Bull. n.s. 10: 5—26

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Wooden Artifacts Conservator

Wood Identification Report

Title/Object:
Torah Ark

Accession number:

Artist/Maker:
Unknown

Execution date:

Curator:
Abby Schwartz
Director, Skirball Museum

Date of Report:
10/5/2020

Wood identified as:
Populus spp.

Sample Number:
#3

Date and location of examination:
The samples were taken by Elizabeth Allaire of Allaire Fine Art Conservation, LLC. September 17, 2020

Examination Conditions:
Microscopic observations: All samples were view both in reflected light and transmitted light. (Dino-lite AM413ZTAS, 20x-220x and Amscope T670, 60x-600x)

Sample size and location:
Sample #3 was taken from the inner back surface of the proper right grape column located opposite a hole in the carving, just below the front area of loss. There was evidence of insect damage in the sample with many tunnels filled with frass.

Macroscopic features:
The wood is light brown, fairly dense. Rays are not visible by eye on the transverse surface

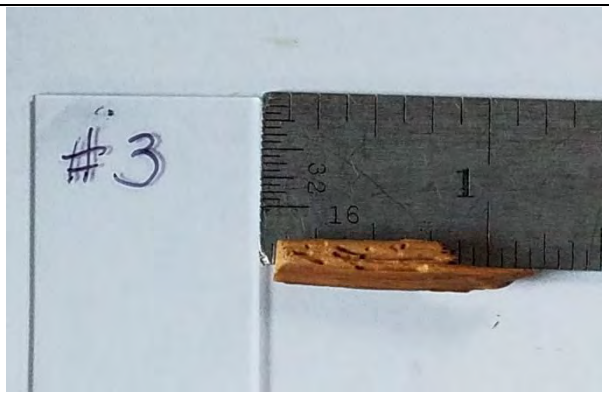
Microscopic features:

- Diffuse porous
- Growth boundary visible, compressed cells
- Vessel diameter 40-76µ observed, solitary, clusters, and in short radial multiples
- Simple perforation plates
- Uniseriate rays present
- Homogenous rays
- Ray vessel pits large, confined to the outer cells

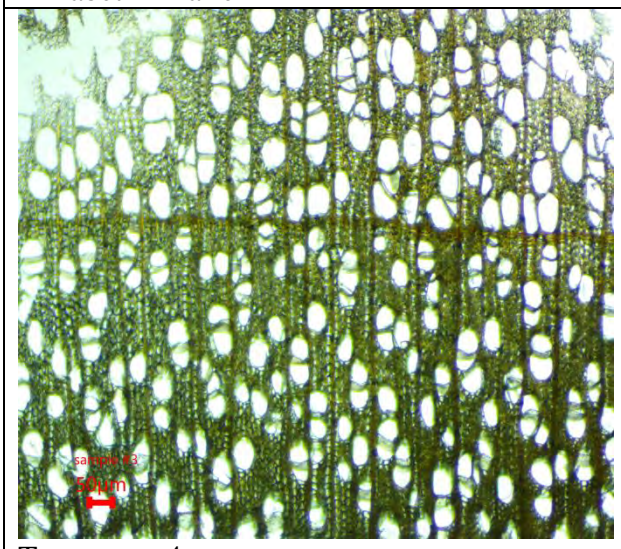
Other features or notes:
The sample is likely one of the species of *Populus spp.* Microscopically *Salix and Populus* are sometimes difficult to separate. In general, the rays of *Populus* are homogeneous while those of *Salix* are heterogeneous but all other features are nearly identical. It is reported that some rays in *Populus* can be heterogeneous, when this occurs, the two species are not reliably separated.

Since I did not observe any rays that were heterogeneous in sample #3, the finding support the attribution to ***Populus spp.*** Furthermore, question of American or European origin is not answerable based on anatomy alone.

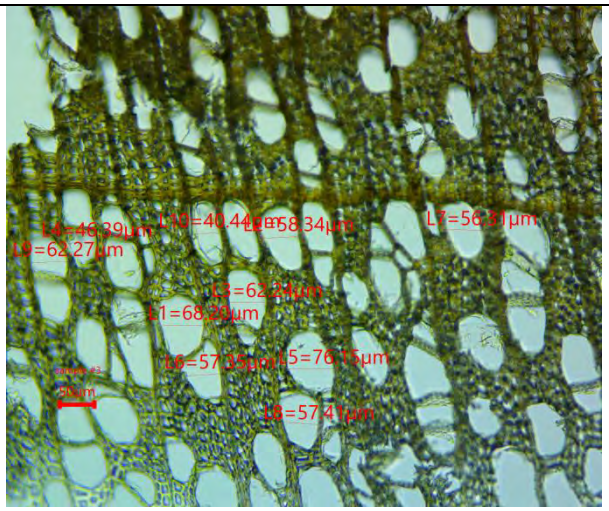
Sample #3 location. Photography taken my Elizabeth Allaire



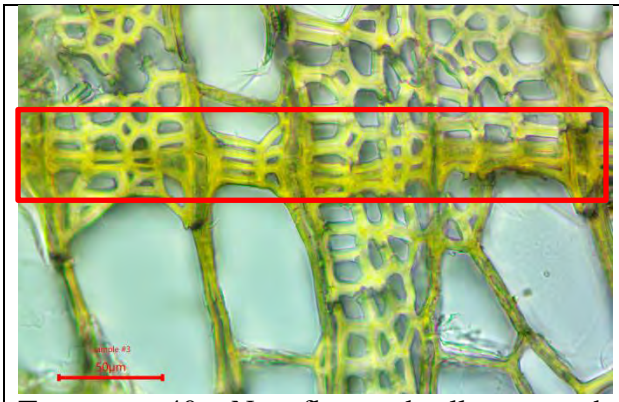
Sample #3: Note insect damage and frass



Transverse 4x

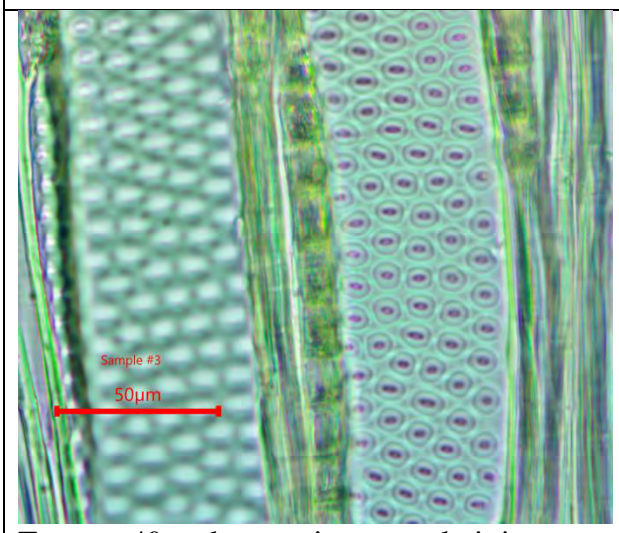


Transverse 10x: Vessels 40-76µm observed

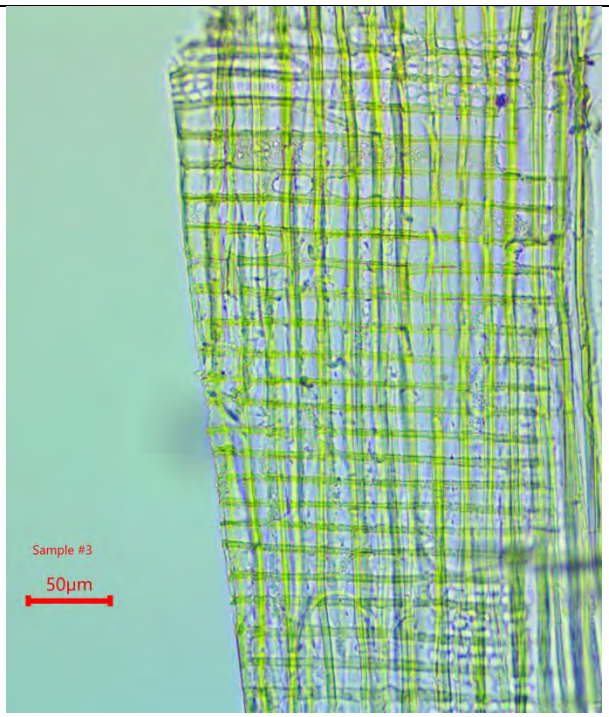


Transverse 40x: Note flattened cells at growth boundary

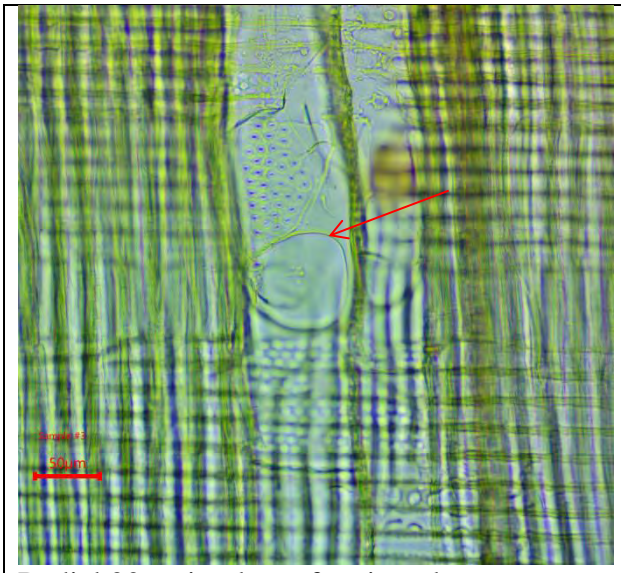
Tangent 40x: Uniseriate rays



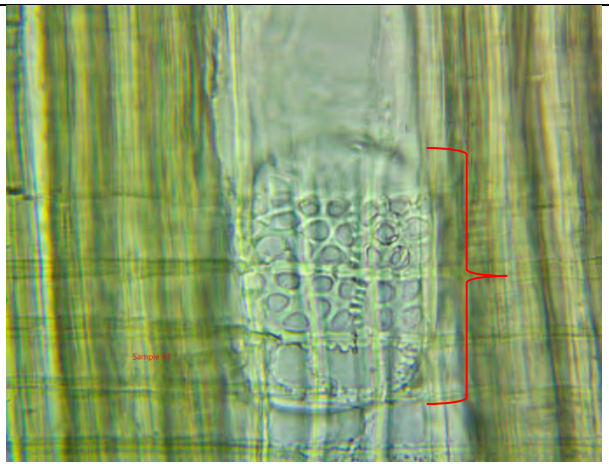
Tangent 40x: alternate intervessel pitting



Radial 20x: homocellular rays



Radial 20x: simple perferation plate



Radial 60x: Ray vessel pits and halo of a simple perferation plate

References:

E.A.Wheeler, P. Baas & P.E. Gasson eds. 1989. *IAWA List of Microscopic Features for Hardwood Identification.* in IAWA Bulletin n.s. 10(3):219-332. Leiden.

E.A.Wheeler, P. Baas & P.E. Gasson eds. 2004. *IAWA List of Microscopic Features for Softwood Identification.* in IAWA Bulletin n.s. 25(1):1-70. Leiden.

Gasson, Peter and White, Lydia. 2008. *Mahogany.* Richmond, Suerry: Royal Botanic Gardens, Kew.

Hather, Jon G. 2000. *The identification of Northern European Woods,* London: Archetype.

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Miller, R.B. and E. Cahow. 1989. Wood identification of commercially important North American species of birch (Betula). IAWA Bull. N.s. 10: 364-373

Panshin, A.J. and Carl de Zeeuw. 1970. *Textbook of Wood Technology, vol. 1.* 3rd ed. New York: McGraw-Hill.

Richter, H.G., and Dallwitz, M.J. 2000 onwards. Commercial timbers: descriptions, illustrations, identification, and information retrieval. In English, French, German, Portuguese, and Spanish. Version: 16th April 2006. http://delta-intkey.com

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Wheeler, E.A., C.A. LaPasha, & R.B. Miller. 1988. Wood anatomy of elm (Ulmus) and hackberry (Celtis) species native to the United States. IAWA Bull. n.s. 10: 5—26

Conservator: _____

Randy S. Wilkinson
Principal
Fallon & Wilkinson, LLC
randywilkinson@att.net
860-884-7104

Randy S. Wilkinson
Wooden Artifacts Conservator

Wood Identification Report

Title/Object:
Torah Ark
Accession number:

Artist/Maker:
Unknown

Execution date:

Curator:
Abby Schwartz
Director, Skirball Museum

Date of Report:
10/6/2020
Wood identified as:
Populus spp.

Sample Number:
#4
Date and location of examination:
The samples were taken by Elizabeth Allaire of Allaire Fine Art Conservation, LLC. September 17, 2020

Examination Conditions:
Microscopic observations: All samples were view both in reflected light and transmitted light. (Dino-lite AM413ZTAS, 20x-220x and Amscope T670, 60x-600x)

Sample size and location:
Sample #4 was taken from the proper right grape column along an area of loss located to the inner surface, and approximately half-way up the height of the column. The sample is from the inside of the carving toward the front of the carved surface.

Macroscopic features:
The wood is light brown, fairly dense. Rays are not visible by eye on the transverse surface

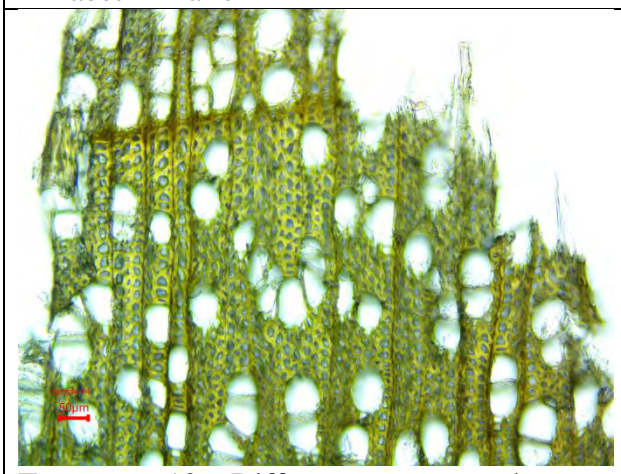
Microscopic features:
- Diffuse porous
- Growth boundary visible, compressed cells
- Vessel diameter 40-76µ observed, solitary, clusters, and in short radial multiples
- Simple perforation plates
- Uniseriate rays present
- Homogenous rays
- Ray vessel pits large, confined to the outer cells
-

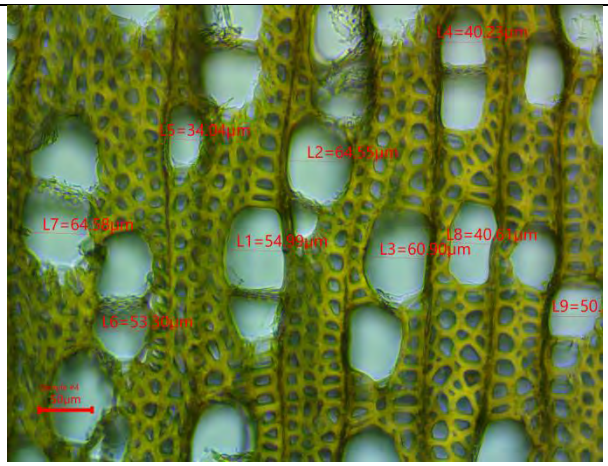
Other features or notes:
The sample is likely one of the species of ***Populus spp.*** Microscopically ***Salix and Populus*** are sometimes difficult to separate. In general, the rays of ***Populus*** are homogeneous while those of ***Salix*** are heterogeneous but all other features are nearly identical. It is reported that some rays in

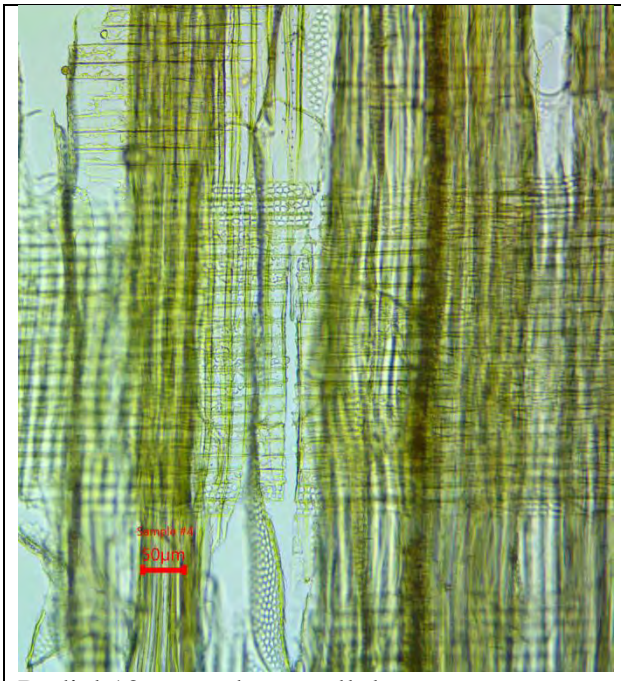
Populus can be heterogeneous, when this occurs; the two species are not reliably separated. Since I did not observe any rays that were heterogeneous in sample #4, the finding support the attribution to *Populus spp.* Furthermore, question of American or European origin is not answerable based on anatomy alone.

Sample #4:Sample site location. Photo by Elizabeth Allaire

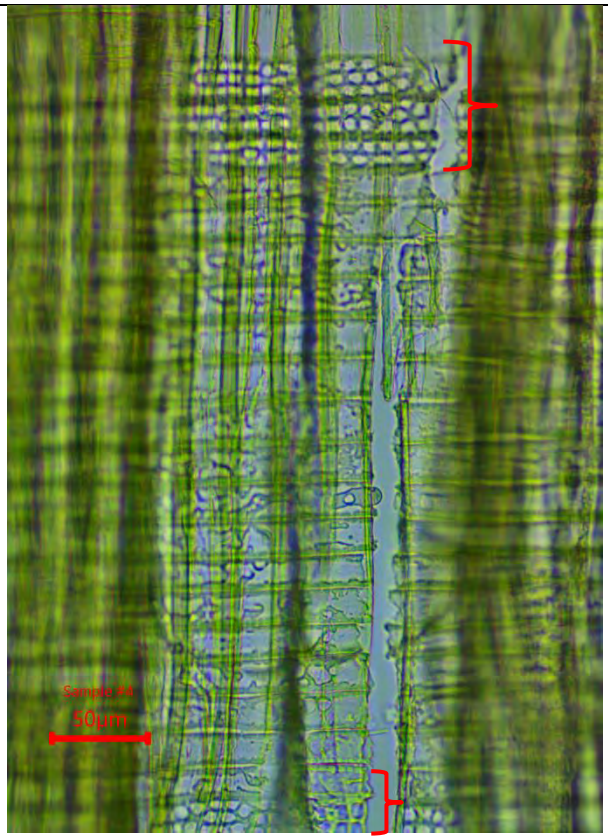
Sample #4


Transverse 10x: Diffuse porous, growth boundary evident

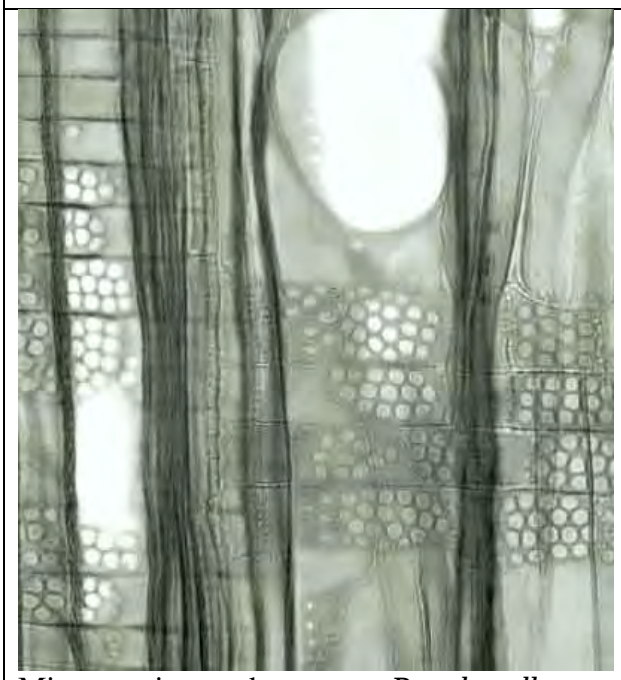

Transverse 20x: vessel diameters 34 - 60µm typical



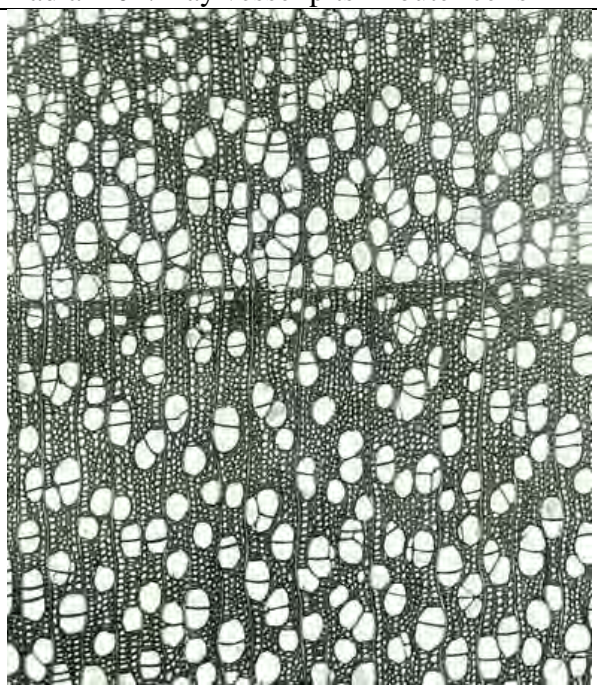
Radial 10x: rays homocellular



Radial 20x: Ray vessel pits in outer cells



Microscopic wood anatomy. ***Populus alba***
http://www.woodanatomy.ch/schnitt.php?code=PPAL&image=19



Microscopic Wood Anatomy: ***Populus alba***
http://www.woodanatomy.ch/schnitt.php?code=PPAL&image=1

Tangential 40x: Alternate intervessel pitting

Tangential 40x: uniseriate rays

References:

E.A.Wheeler, P. Baas & P.E. Gasson eds. 1989. *IAWA List of Microscopic Features for Hardwood Identification.* in IAWA Bulletin n.s. 10(3):219-332. Leiden.

E.A.Wheeler, P. Baas & P.E. Gasson eds. 2004. *IAWA List of Microscopic Features for Softwood Identification.* in IAWA Bulletin n.s. 25(1):1-70. Leiden.

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Hather, Jon G. 2000. *The identification of Northern European Woods,* London: Archetype.

Hoadley, R. Bruce. 1990. *Identifying Wood.* Newtown: Taunton Press.

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Wheeler, E.A., C.A. LaPasha, & R.B. Miller. 1988. Wood anatomy of elm (Ulmus) and hackberry (Celtis) species native to the United States. IAWA Bull. n.s. 10: 5—26

Conservator: _____

Randy S. Wilkinson
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Randy S. Wilkinson
Wooden Artifacts Conservator

Wood Identification Report

Title/Object:
Torah Ark
Accession number:
N/A

Artist/Maker:
Unknown

Execution date:
9/17/2020

Curator:
Abby Schwartz
Director, Skirball Museum

Date of Report:
10/5/2020
Wood identified as:
Tilia spp. Linden , also known as Lime

Sample Number:
#5
Date and location of examination:
The samples were taken by Elizabeth Allaire of Allaire Fine Art Conservation, LLC. September 17, 2020

Examination Conditions:
Microscopic observations: All samples were view both in reflected light and transmitted light. (Dino-lite AM413ZTAS, 20x-220x and Amscope T670, 60x-600x)

Sample size and location:
Sample#5 is taken from the bottom inner edge of the proper right panel supporting the commandment panels The sample is taken from the inner cut edge of the panel behind the lower framing, along the bottom where the proper right panel meets the proper left panel.

Macroscopic features:
The sample was sufficiently large enough to obtain very good information. It was light brown in color, fairly dense and diffuse porous.

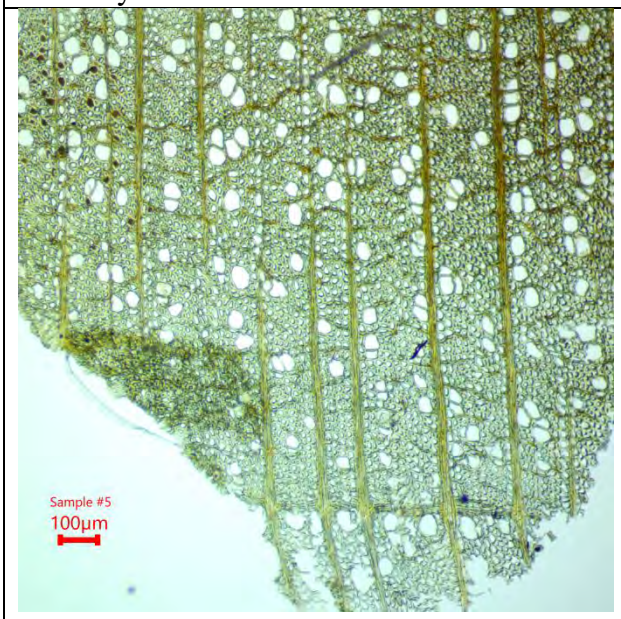
Microscopic features:
- Diffuse porous, vessels in radial multiples, clusters, 30-74 µm observed
- Growth increments visible by 2-3 flattened cells
- Rays 1-5 seriate observed, flattened or “coffin like”
- Rays noded
- Fibers thin to thin-thick walled
- Parenchyma in short tangential bands, marginal with occasional dark contents
- Spiral thickenings present
- Intervessel pits are alternate

Other features or notes:
The sample #1 is consistent with the genus *Tilia spp* and is likely one of the most common species found in Europe, *Tilia cordata* Mill.*, Tilia platyphyllos* Scop, or *Tilia tomentosa* Moench.

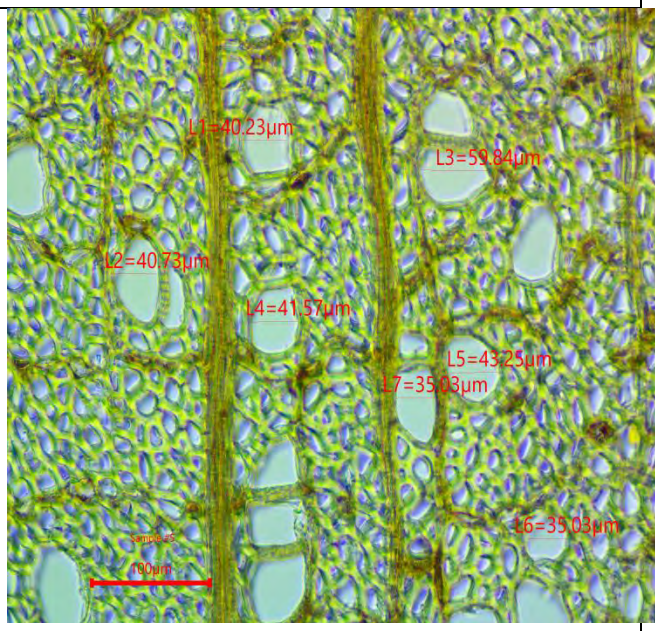
also known as small-leaf, big-leaf lime and silver lime. Schweingruber, reports that it is not possible to separate the three species microscopically. Given the origin of the sample and that fact that the sample was fairly dense, the North American species of *Tilia spp* are not likely.

Location of sample #5: Proper Left door panel
Photo by Elizabeth Allaire.

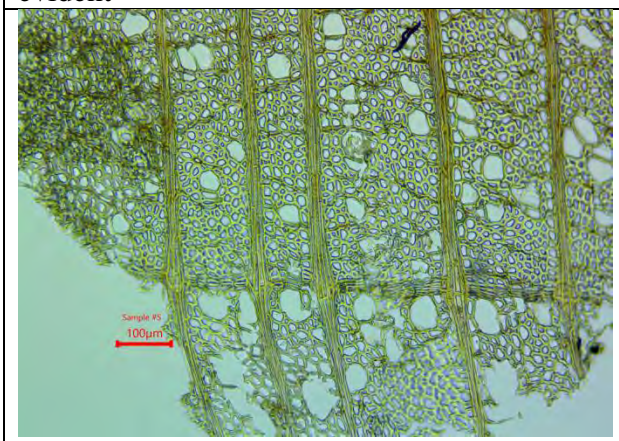
Sample #5



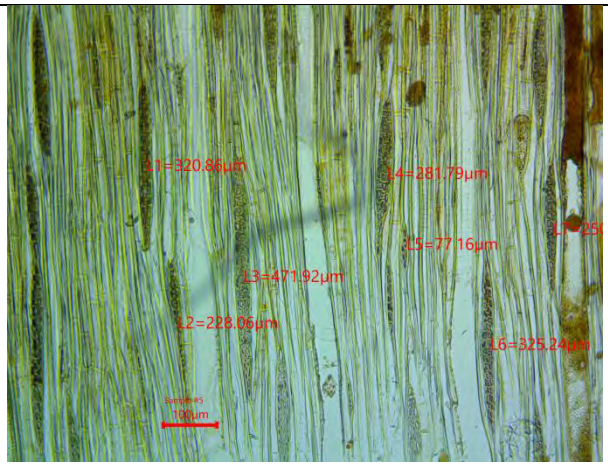
Transverse 4x: Diffuse porous, growth boundary evident



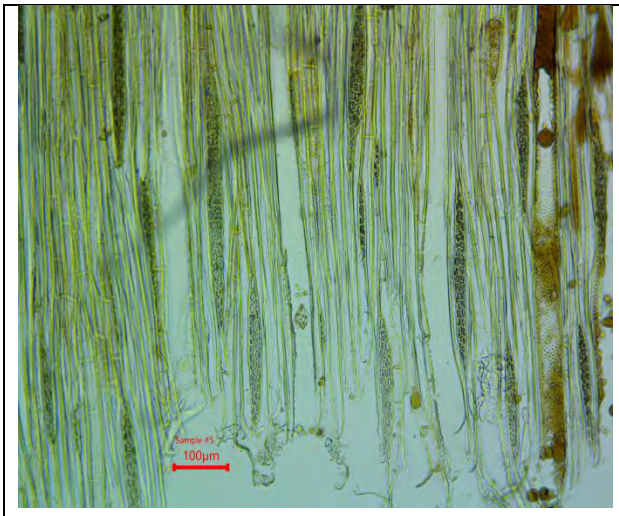
Transverse 20x with vessel diameter units



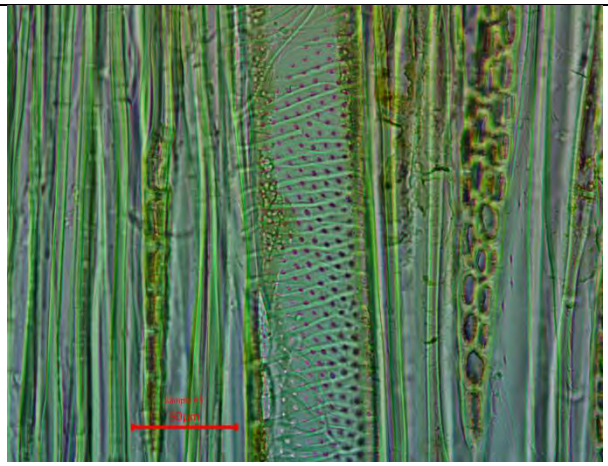
Transverse 10x: Note noded rays, compressed fibers at the growth ring boundary, and thin-thick walled fibers



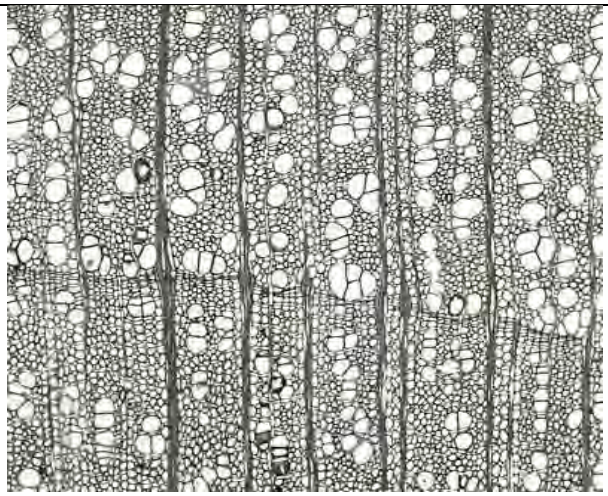
Tangent 10x; Rays up to 325µm observed



Tangent 10x: Note 1-4 seriate rays



Tangent 40x: Note alternate intervessel pits and helical thickenings



Transverse: *Tilia cordata* Mill.
http://www.woodanatomy.ch/

References:

E.A.Wheeler, P. Baas & P.E. Gasson eds. 1989. *IAWA List of Microscopic Features for Hardwood Identification.* in IAWA Bulletin n.s. 10(3):219-332. Leiden.

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Conservator: _____

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860.884.7104

Cross-Section Microscopy Report
18th-century Torah Ark, Poland, Trzcianka (Schonlanke)

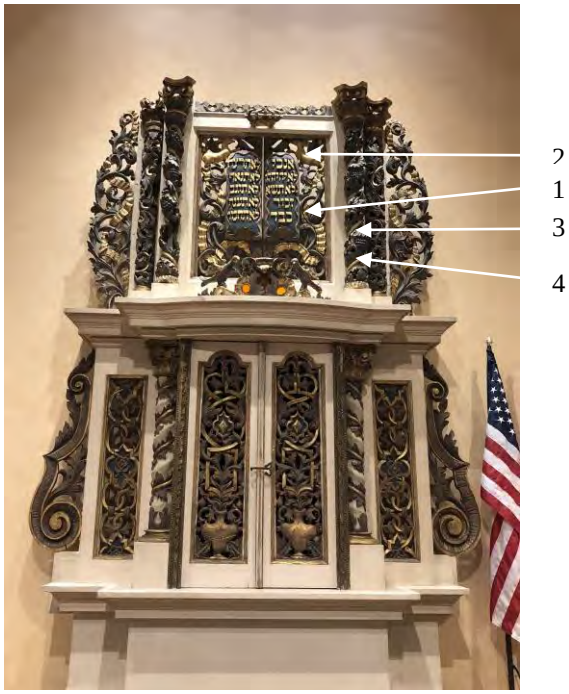
Optical Microscopy Paint Analysis

For: Randy Wilkinson
Fallon & Wilkinson
32 Bushnell Hollow Road
Baltic, CT 06330

Conservator: Susan L. Buck
Conservator and Paint Analyst
303 Griffin Ave.
Williamsburg, VA 23185

Date: October 19, 2020

Torah Ark



Purpose:

The goal of this project is to use cross-section and polarized light microscopy analysis (PLM) techniques to identify the earliest paints remaining on an 18th-century Torah Ark from Poland. This investigation will contribute to a better understanding of the paint history of this object and will provide insights into the composition of the original paints for documentation and possible replication.

Procedures:

Samples from theTorah Ark were taken by Objects Conservator Elizabeth G. Allaire of Allaire Fine Arts Conservation, LLC, in consultation with Conservator Randy Wilkinson. The samples were sent to me by Wilkinson after he conducted a preliminary review and placed most of the samples in labeled vials for safe shipping. A sample description report with reference photographs for wood and paint samples was provided by Allaire, and accompanied the samples. At the lab these samples were first reviewed at 45X magnification and the best representative ones were placed into polyester resin cubes for permanent mounting. The polyester resin cubes containing the samples were ground and sanded with 220, 400 and 600 grit sandpapers to expose the cross-sections, and then polished with MicroMesh silica-embedded polishing cloths with grits from 1500 to 12000 to achieve a glassy surface suitable for analysis.

The cast samples were analyzed with a Nikon Eclipse 80i epi-fluorescence microscope equipped with an EXFO X-Cite 120 Fluorescence Illumination System fiberoptic halogen light source and a polarizing light base using SPOT Advanced software (v. 5.1) for digital image capture and Adobe Photoshop CS for digital image management. Note that the colors in the photomicrographs do not precisely match the colors in the samples due to the inherent variability of digital image capture.

The cast samples were examined in cross-section under reflected visible and ultraviolet light at 100X, 200X and 400X. Binding media characterization with biological fluorochrome stains was conducted to identify the presence of proteins (Alexafluor 488), carbohydrates (TTC) and oils (DCF) in the individual layers. After cross-section analysis was completed, pigments were separated from individual early layers for plane polarized light microscopy analysis.

Cross-section Paint Analysis Results:

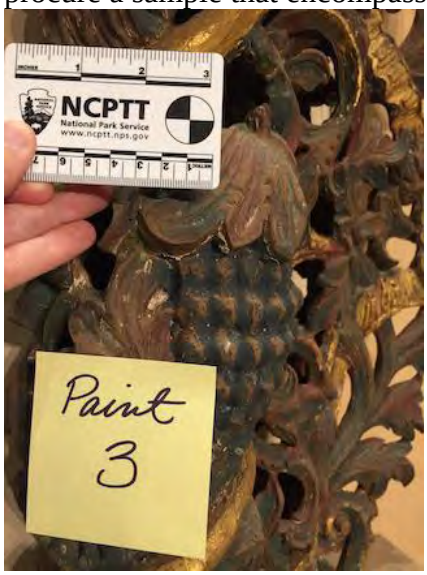
In her report Elizabeth Allaire described the paint sampling approach: “Paint samples were also taken from the surfaces, with the intention of identifying original paint schemes and materials, or if there have been multiple campaigns of paint over time.” The sample location descriptions provided more details about the specific nature of each of the four areas sampled. These descriptions and the detail photographs follow.

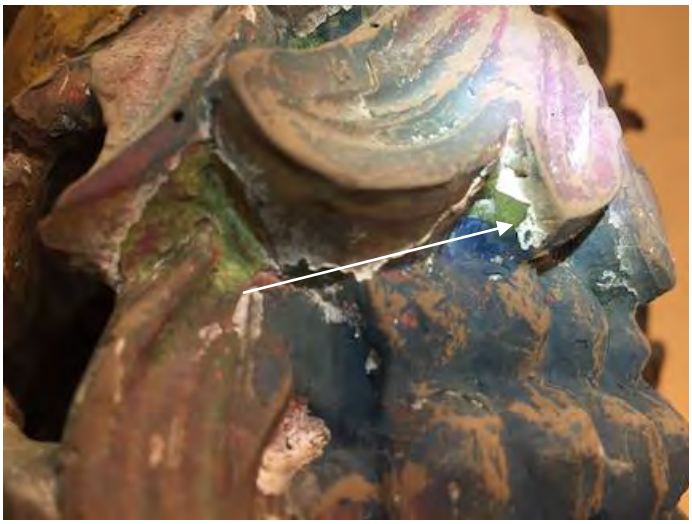
Sample Locations

Sample 1. From the proper left commandment panel (#13 on photo map), adjacent to the upper surface of the lowest character on the bottom proper left, in the blue background, with the goal of identifying the original background of the commandments.

Sample 2. From the claw of the gilded winged animal located above the proper left commandment panel (#13 on the photo map), with the goal of identifying whether or not the gilding is original, and if not, what the color scheme could have been.

Sample 3. From the painted surface on the bottommost cluster of grapes on the proper left grape column (#15 on the photo map). The paint sample is taken from a protected area above the grape cluster where green and blue paints are visible. An attempt was made to procure a sample that encompassed both the green and blue colors, as well as the gesso.



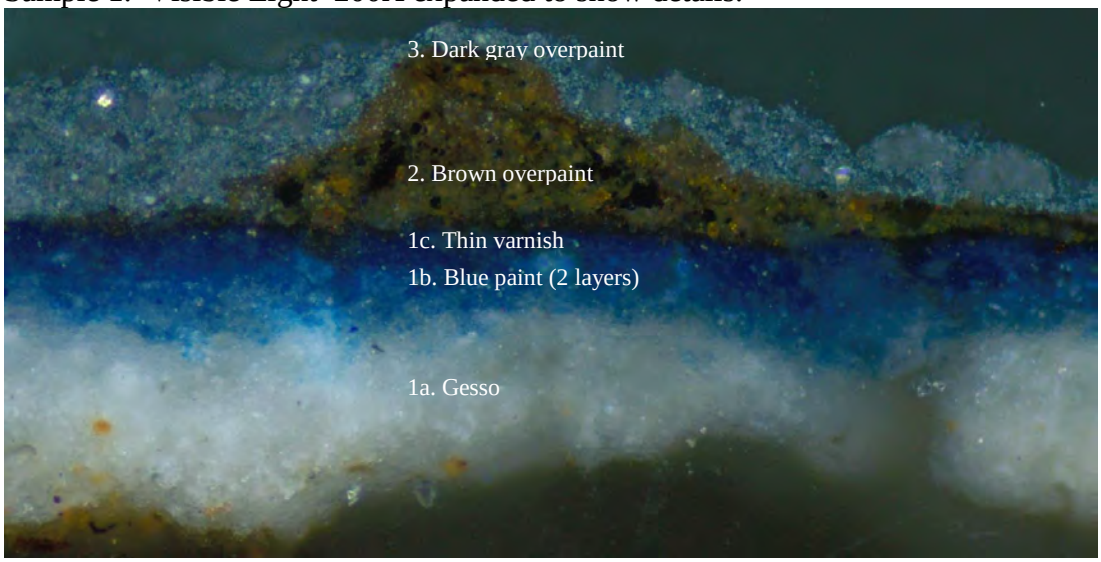


Sample 4. From the bottom of the proper left grape column (#15 on photo map), just above the gilded spiraling element. The sample is from a protected area that shows degraded green paint in the area surrounding, as well as upper layers of what appear to be red and blue overpaint.

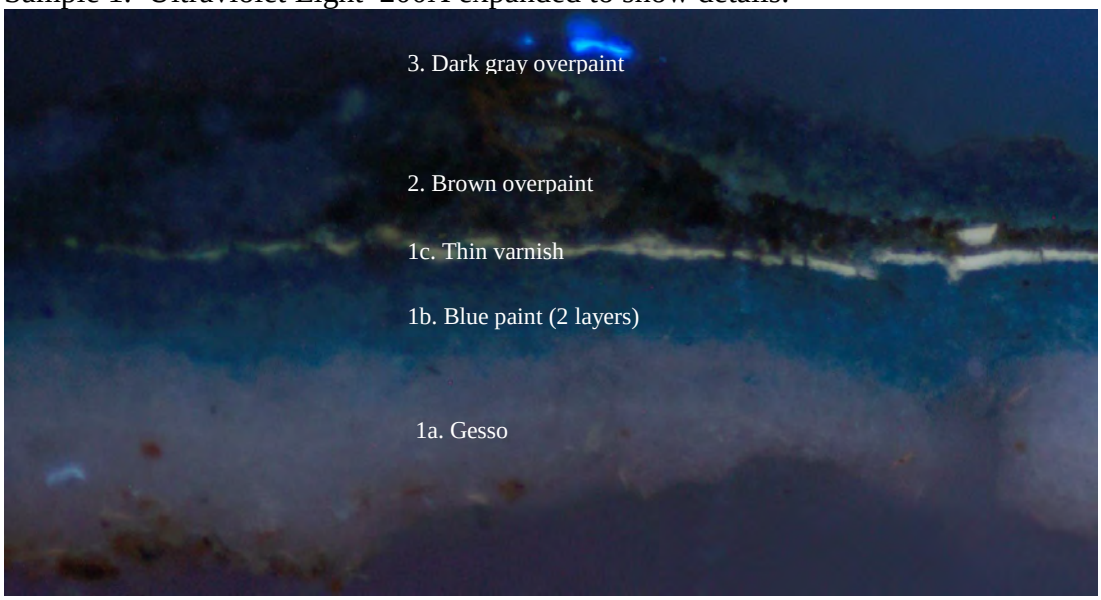
Cross-section microscopy analysis reveals three generation of decorative coatings in this small group of paint samples. The most complete cross-section is sample 1, which came from the dark background of the Proper Left (PL) commandment panel. There are a few wood fibers below the original gesso in this cross-section which confirm that all the coating layers on the wood are present. There is a deep blue paint on top of the gesso which seems to have been applied in two layers as the upper layer is just slightly darker. There is also a plant resin varnish on top of the blue paint (identified based on its characteristic whitish autofluorescence in reflected ultraviolet light). This varnish is cracked and degraded and appears to be part of the original coating sequence.

The second generation is a dark brown paint which has some fibrous contaminants caught up in it. The most recent coating is a finely ground, dark gray paint which flowed into cracks in the earlier layers below. Expanded images of sample 1 in reflected visible and ultraviolet light illustrate this coating structure.

Sample 1. Visible Light 200X expanded to show details.



Sample 1. Ultraviolet Light 200X expanded to show details.



The same whitish gesso preparatory layer was found in all four samples, and the most recent dark gray overpaint was found in samples 1, 2 and 3. The evidence in each of the four samples is described and illustrated in this section of the report, beginning with sample 1 from the dark background.

Sample 1. From the proper left commandment panel (#13 on photo map), adjacent to the upper surface of the lowest character on the bottom proper left, in the blue background, with the goal of identifying the original background of the commandments. This cross-section appears to represent an intact sequence of coatings from an area of dark background paint. The evidence suggests that the original background color was a much brighter blue, and that it was distinctly glossy, based on the presence of an original varnish on top of the blue paint. Pigment analysis with plane polarized microscopy (PLM) shows that the original blue paint is composed of primarily of blue verditer $Cu_3(OH_3)2$, a synthetic copper-based pigment dating as early as the 15^{th}-century, which is brightly birefingent in crossed polars. In this sample there are also widely distributed, nonbirefringent (isotropic) natural ultramarine pigments (made from ground lapis lazuli), along with translucent calcium carbonate particles. The presence of ultramarine, a very costly and precious pigment, suggests this blue paint was expensive and richly colored.

Binding media analysis with biological fluorochrome stains shows that the original gesso and blue paint reacted positively for the presence of proteins with the fluorochrome Alexafluor 488. These positive reactions suggests that the binder in these coatings could be a traditional hide glue, but the staining process can only identify categories of organic materials, like proteins, but not specific proteins.

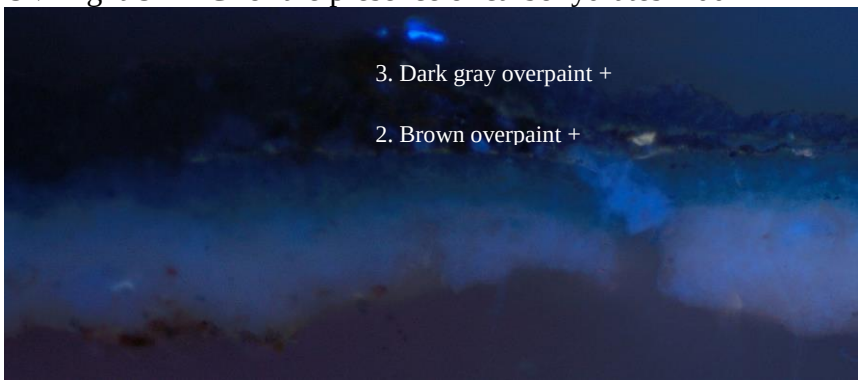
Binding media analysis with TTC shows that there are weak carbohydrate components in the brown and gray overpaint layers, which could be natural gums like gum Arabic or cherry gum. These two overpaints reacted very strongly positive for the presence of saturated (cross-linked) oils with the fluorochrome DCF.

Sample 1. From the proper left commandment panel (#13 on photo map), adjacent to the upper surface of the lowest character on the bottom proper left, in the blue background, with the goal of identifying the original background of the commandments.

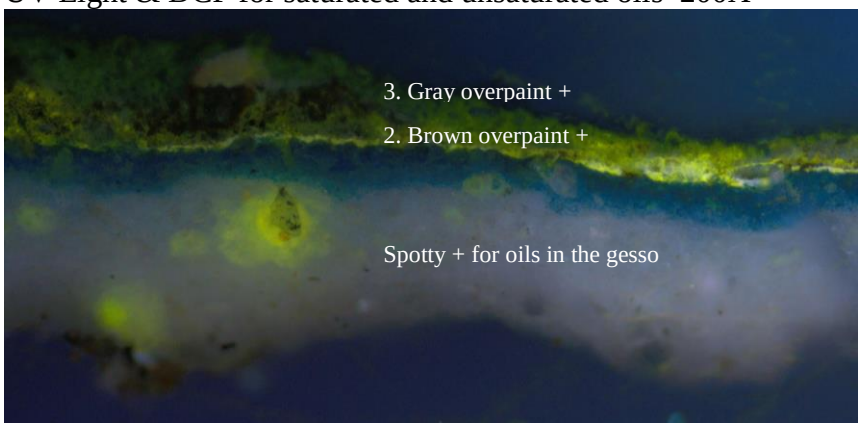
Visible Light 200X

Ultraviolet Light 200X

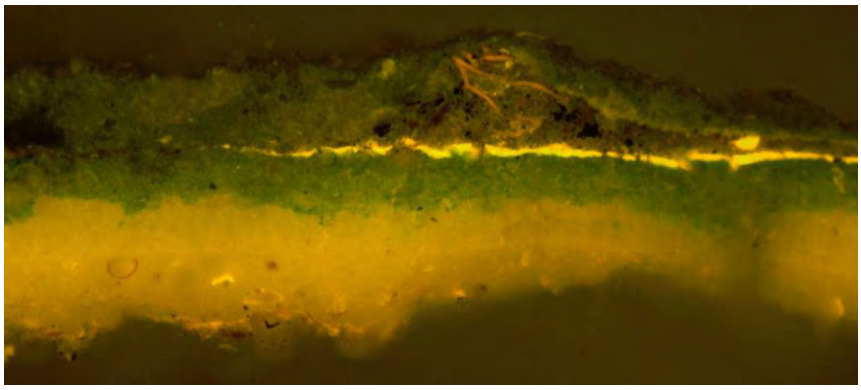
UV Light & TTC for the presence of carbohydrates 200X



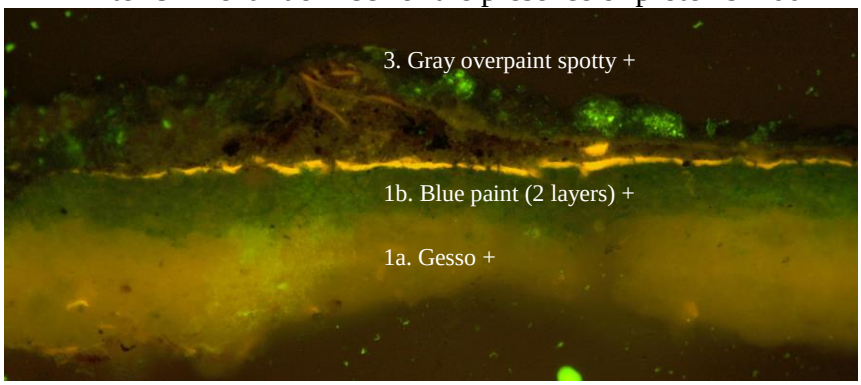
UV Light & DCF for saturated and unsaturated oils 200X



Sample 1
B-2A filter 200X

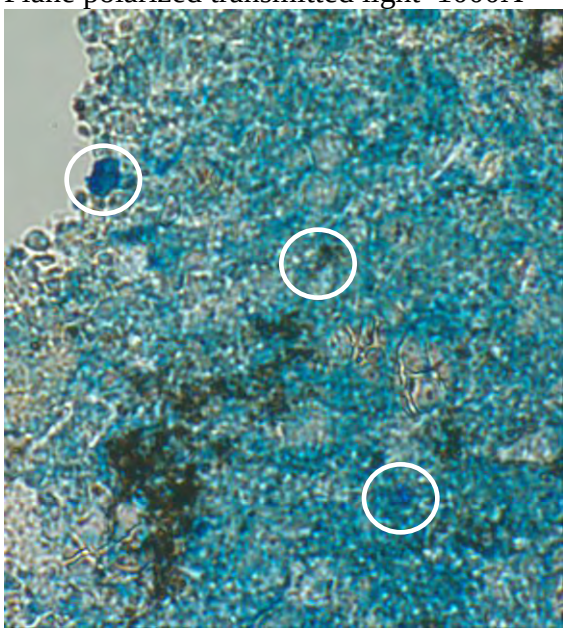


B-2A filter & Alexafluor 488 for the presence of proteins 200X

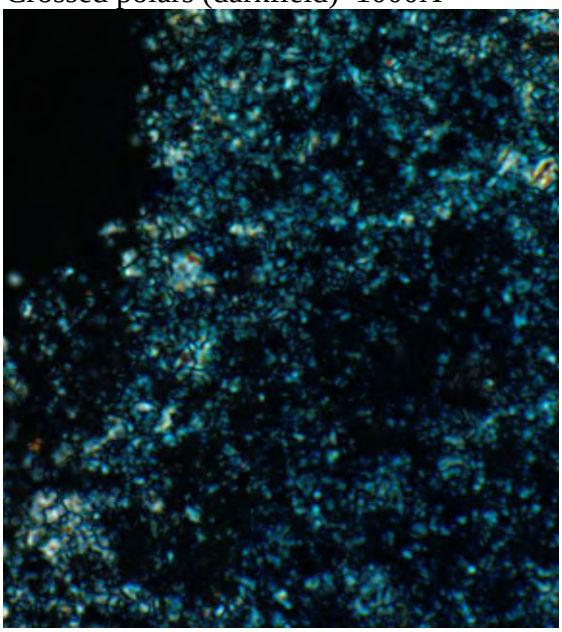


Sample 1. Pigments in the original blue paint: primarily blue verditer with a few scattered natural ultramarine pigments (circled below), and calcium carbonate. (Note that the blackish particles are contaminants from the brown overpaint.)

Plane polarized transmitted light 1000X



Crossed polars (darkfield) 1000X



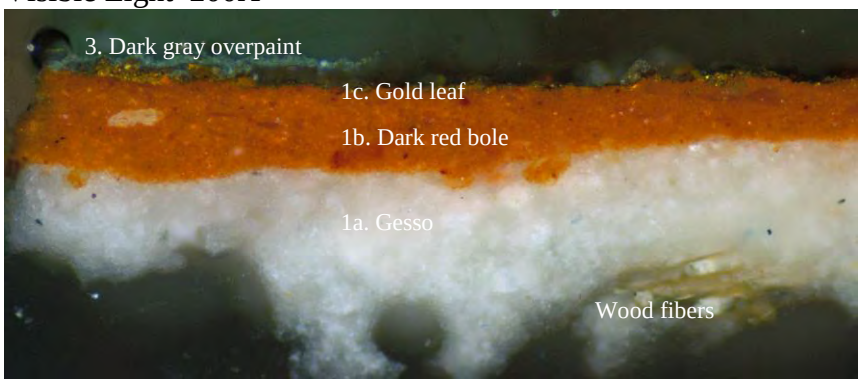
Sample 2. From the claw of the gilded winged animal located above the proper left commandment panel (#13 on the photo map), with the goal of identifying whether or not the gilding is original, and if not, what the color scheme could have been. There are two generations of coatings in sample 2. The original coating sequence appears to consist of a whitish gesso preparatory layer followed by a thickly applied medium red coating. There is fragmented and worn layer of gold leaf on top of the dark red coating. There is an uneven layer of the third-generation dark gray overpaint above a portion of the gilding in this cross-section.

Pigment analysis with plane polarized microscopy (PLM) shows that the original red coating is composed of primarily of tiny nonbirefringent red ochre pigments, with scattered deeper red, slightly birefringent haematite particles, along with translucent calcium carbonate pigments.

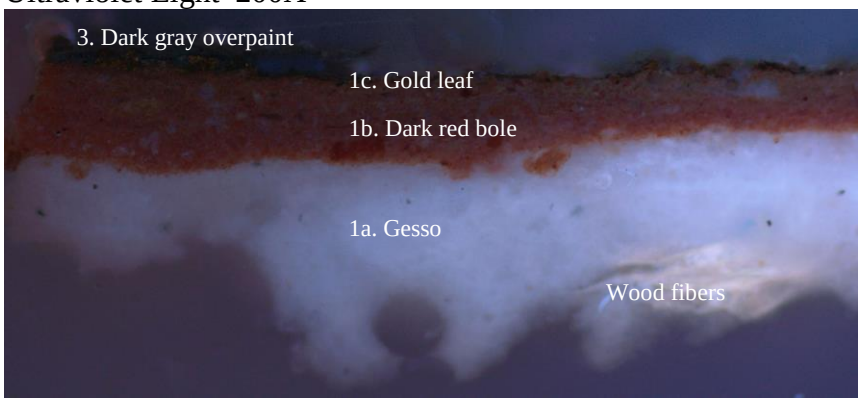
Binding media analysis with TTC shows that there is weak carbohydrate component in the red layer. There are also strong positive reactions for proteins in the gesso and dark red layer. The presence of proteins in the red layer suggests it may be a traditional red bole used as preparation for gilding. The strongest reactions were for oils with DCF in the gilding layer, which suggests that an oil sizing was used to secure the gold leaf to the dark red bole. The dark gray overpaint is also oil-bound.

Sample 2. From the claw of the gilded winged animal located above the proper left commandment panel (#13 on the photo map), with the goal of identifying whether or not the gilding is original, and if not, what the color scheme could have been.

Visible Light 200X

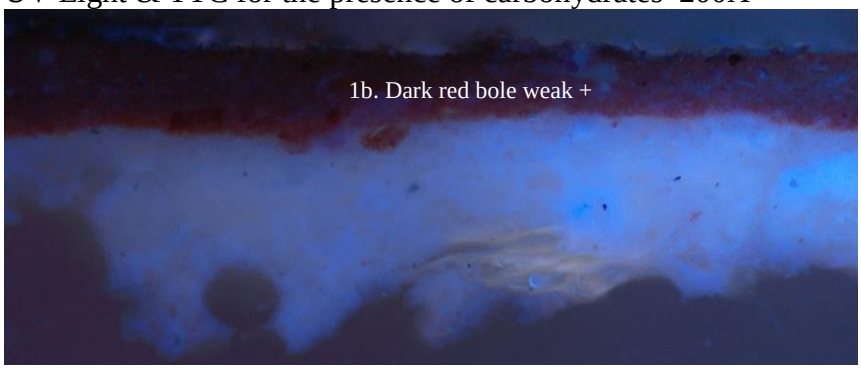


Ultraviolet Light 200X

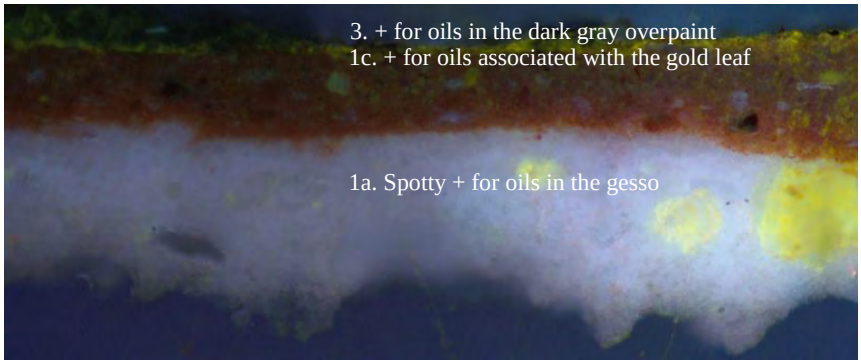


Sample 2. From the claw of the gilded winged animal located above the proper left commandment panel (#13 on the photo map), with the goal of identifying whether or not the gilding is original, and if not, what the color scheme could have been.

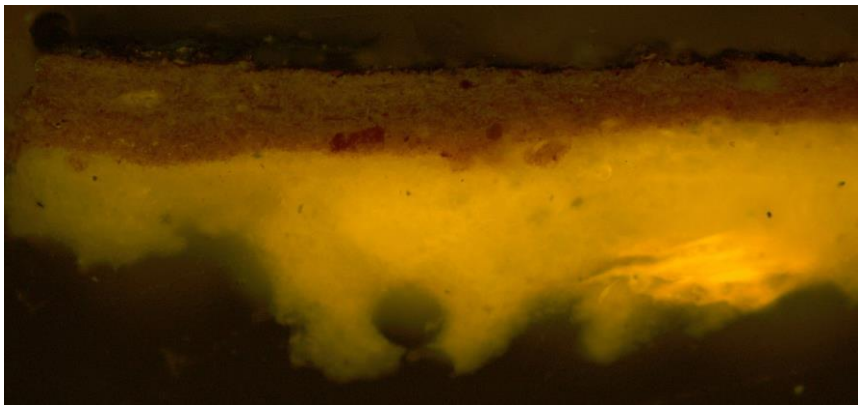
UV Light & TTC for the presence of carbohydrates 200X



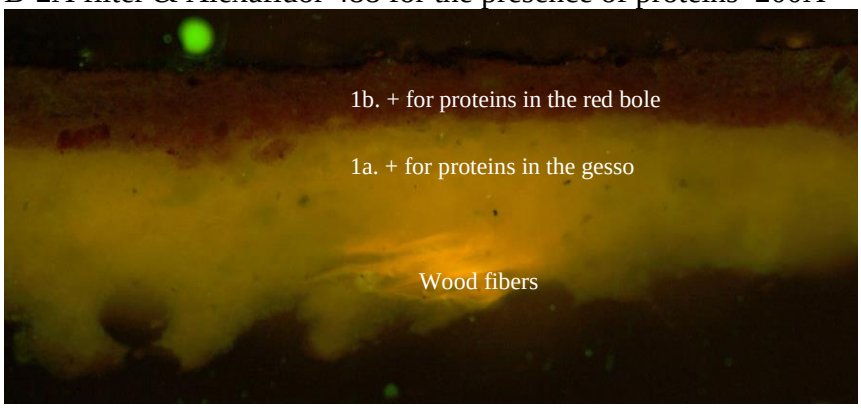
UV & DCF for saturated and unsaturated oils 200X



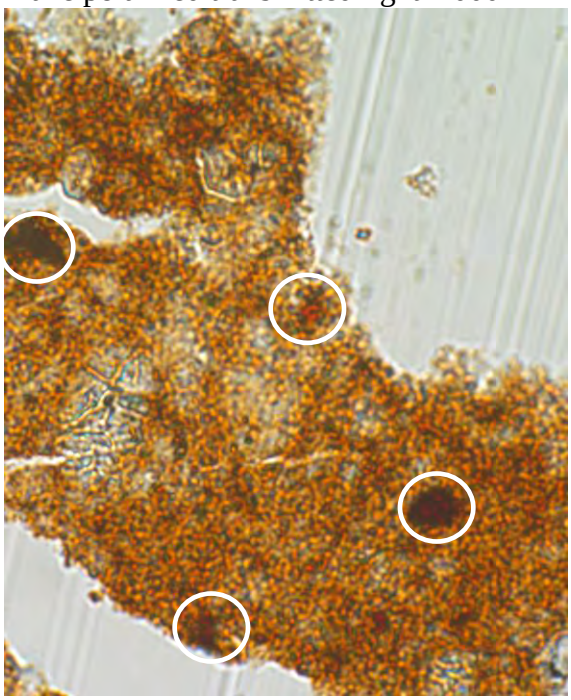
B-2A filter 200X

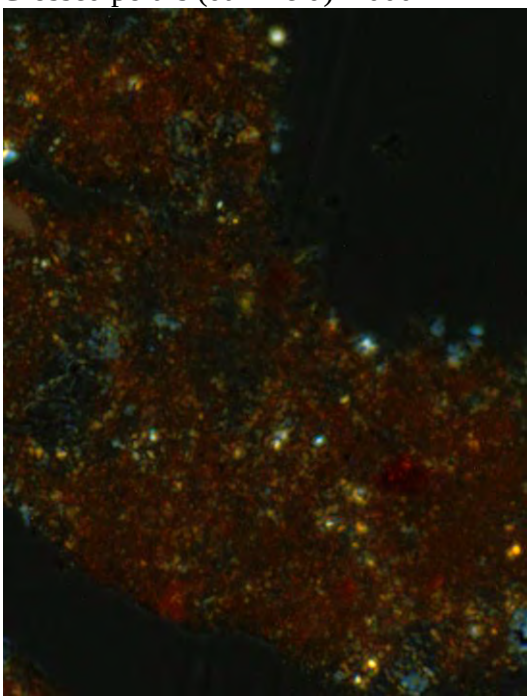


B-2A filter & Alexafluor 488 for the presence of proteins 200X



Sample 2. From the claw of the gilded winged animal located above the proper left commandment panel (#13 on the photo map), with the goal of identifying whether or not the gilding is original, and if not, what the color scheme could have been.
Pigments in the dark red bole: red ochre, haematite (circled below), calcium carbonate.
Plane polarized transmitted light 1000X Crossed polars (darkfield) 1000X





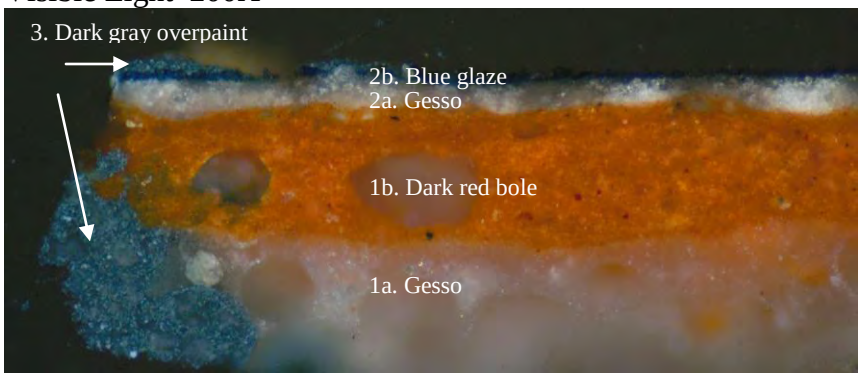
Sample 3. From the painted surface on the bottommost cluster of grapes on the proper left grape column (#15 on the photo map). The paint sample is taken from a protected area above the grape cluster where green and blue paints are visible. An attempt was made to procure a sample that encompassed both the green and blue colors, as well as the gesso. This cross-section from the painted grapes is more complex than sample 2 from the bird claw, and it is similar to the layer sequence observed in sample 4. The two earliest layers consist of the whitish gesso and the same dark red bole observed below the gold leaf layer in sample 2.

There is no gold leaf in sample 3: the layer directly on top of the dark red bole is a thin gesso layer followed by a thin deep blue glaze layer. This gesso is brighter white and more finely ground than the first gesso layer and it seems to be a slightly later coating. It also matches the second thin white gesso found in sample 4. The third generation is the dark gray overpaint found in samples 1 and 2, which flowed into a deep crack around the left edge of the cross-section.

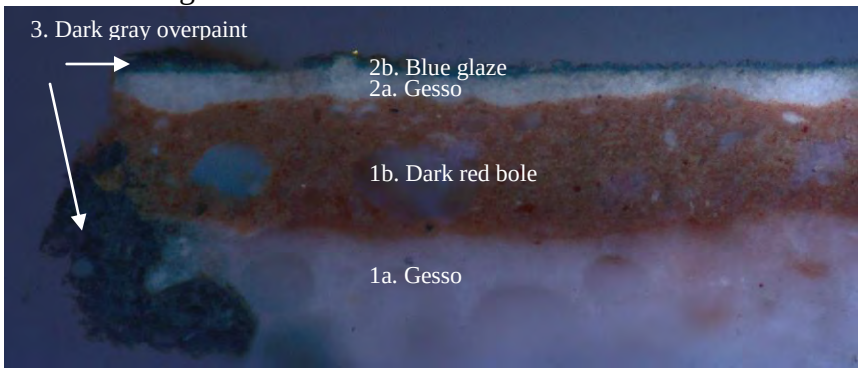
Binding media analysis shows that both gessoes contain proteins, as does the dark red bole, using the fluorochrome Alexafluor 488. There were weak positive reactions for carbohydrates in the original gesso layer with TTC. Strong positive reactions for oils were observed in the blue glaze and the dark gray overpaint, and there appear to be deposits of oily materials in the voids of the dark red bole with DCF.

Polarized light microscopy analysis shows that the blue glaze consists primarily of Prussian blue and calcium carbonate. Prussian blue was first synthesized in Berlin in about 1704, so it could be an eighteenth-century coating here.

Visible Light 200X

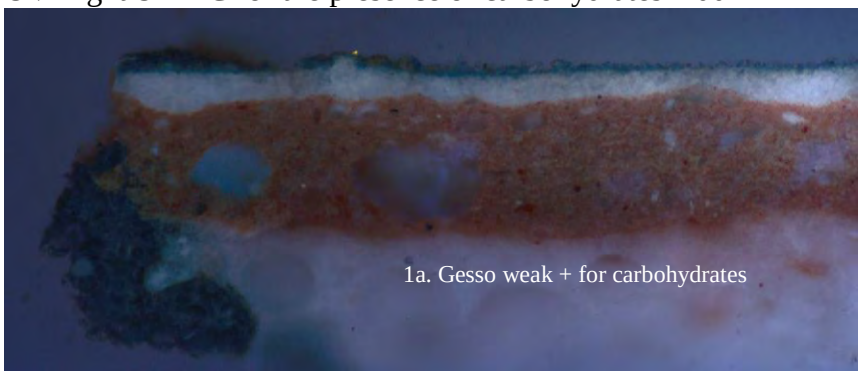


Ultraviolet Light 200X

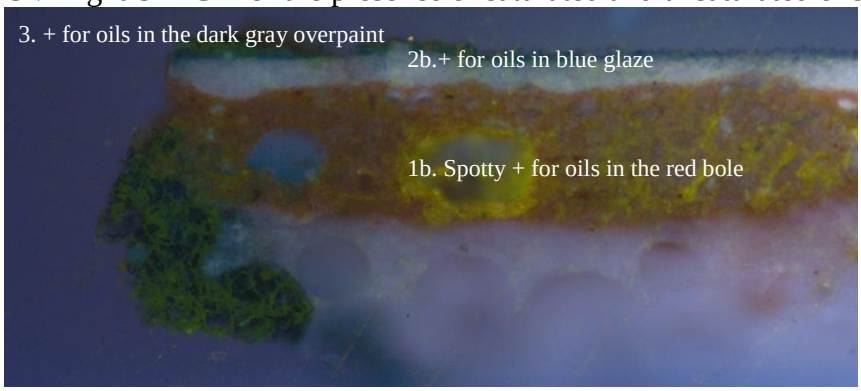


Sample 3. From the painted surface on the bottommost cluster of grapes on the proper left grape column (#15 on the photo map). The paint sample is taken from a protected area above the grape cluster where green and blue paints are visible. An attempt was made to procure a sample that encompassed both the green and blue colors, as well as the gesso.

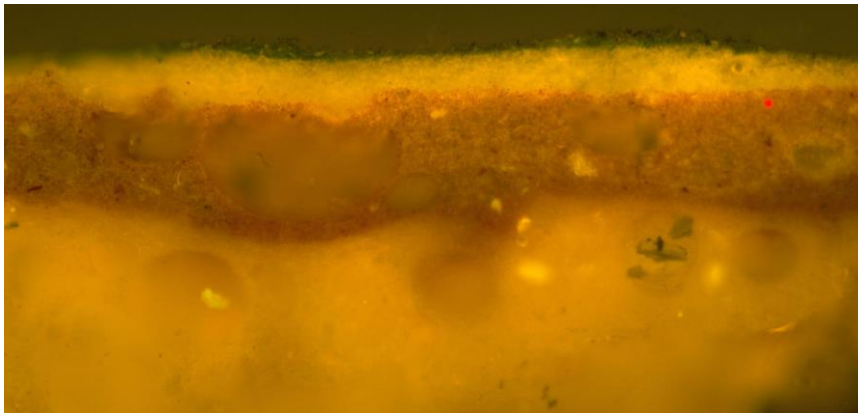
UV Light & TTC for the presence of carbohydrates 200X



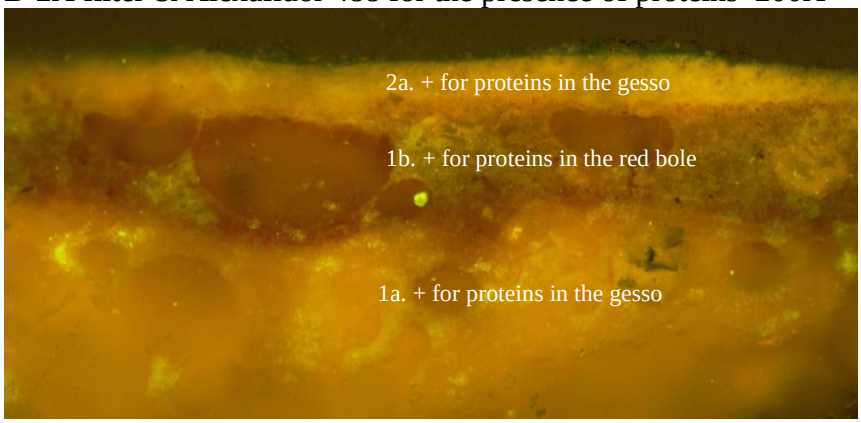
UV Light & DCF for the presence of saturated and unsaturated oils 200X



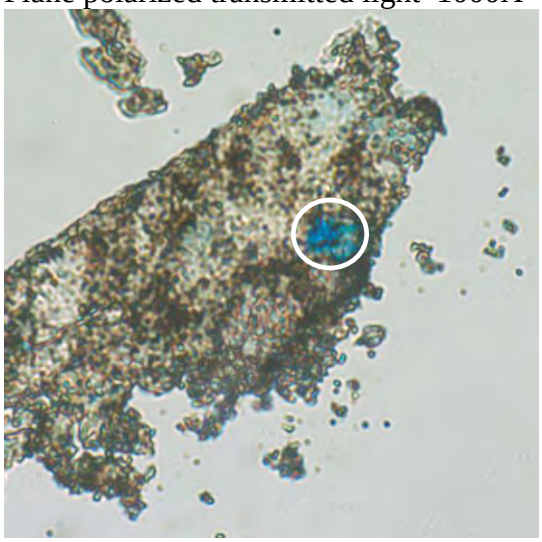
Sample 3. From the painted surface on the bottommost cluster of grapes on the proper left grape column (#15 on the photo map). The paint sample is taken from a protected area above the grape cluster where green and blue paints are visible. An attempt was made to procure a sample that encompassed both the green and blue colors, as well as the gesso.
B-2A filter 200X

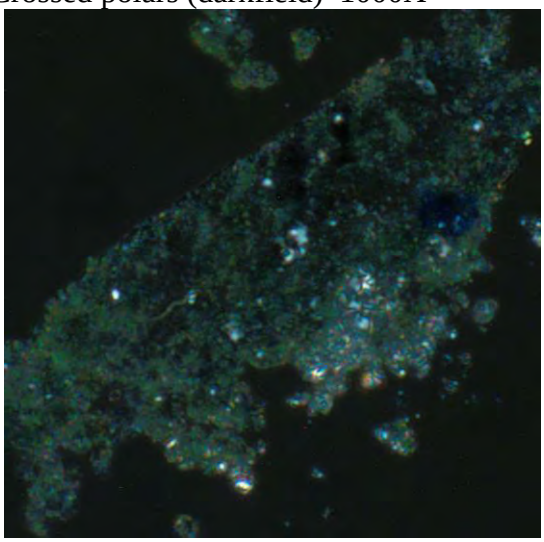


B-2A filter & Alexafluor 488 for the presence of proteins 200X



Sample 3. Pigments in the blue glaze: Prussian blue and calcium carbonate.
Plane polarized transmitted light 1000X Crossed polars (darkfield) 1000X



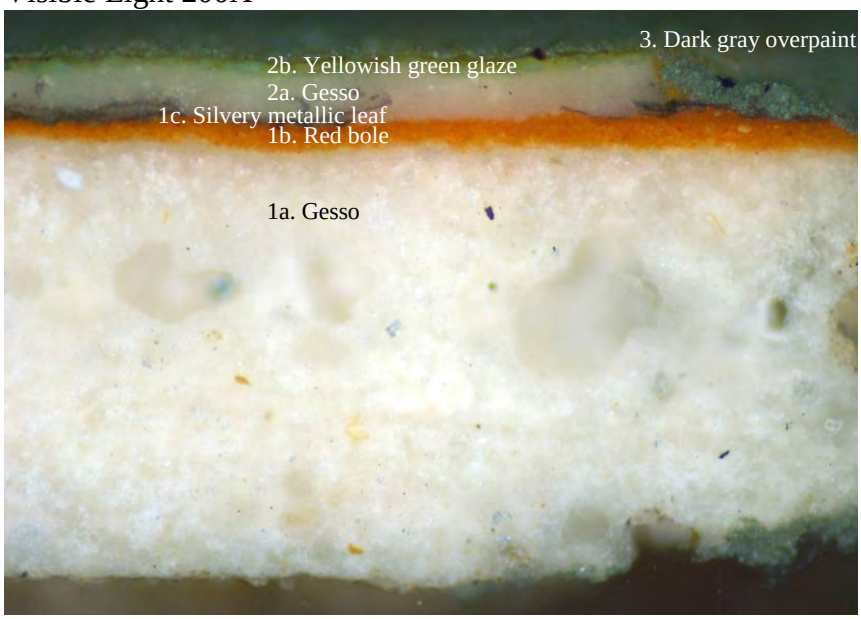


Sample 4. From the bottom of the proper left grape column (#15 on photo map), just above the gilded spiraling element. The sample is from a protected area that shows degraded green paint in the area surrounding, as well as upper layers of what appear to be red and blue overpaint. This cross-section has a complex coating history which is somewhat difficult to decipher because the earliest decorative layer is worn and discolored. The first generation seems to consist of the whitish gesso, the dark red bole, and a fragmentary layer of darkened silvery metallic leaf. This is covered over with a brighter white gesso and a thin yellowish-green layer. The third generation is the dark gray overpaint.

Binding media analysis shows that the earliest gesso and dark red bole layers contain protein components (with Alexafluor 488), and there are weak carbohydrate components in both gessoes. There were spotty positive reactions for oils in the voids of the original gesso and weak positive reactions for oils in the second gesso layer. These reactions may be the result of penetration of the oil binder of the dark gray overpaint into the chalky layers below.

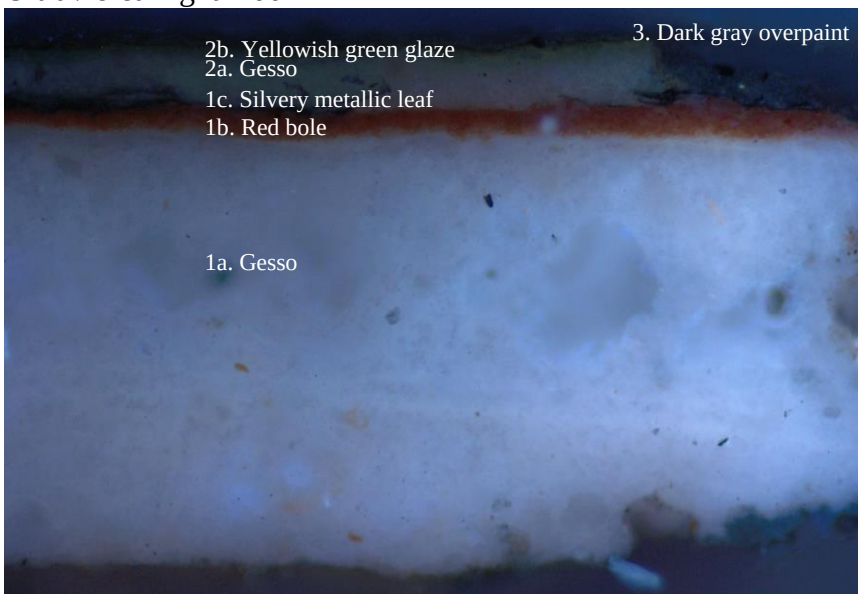
The pigment analysis results for the yellowish green glaze show it contains scattered yellow ochre and blue verditer pigments, along with calcium carbonate. It is possible this second gesso and glaze is early, but in this cross-section it does not appear to be original as it is above the silvery metallic leaf. Additional samples from other similar areas would be helpful for comparison and to confirm or refine this interpretation.

Visible Light 200X

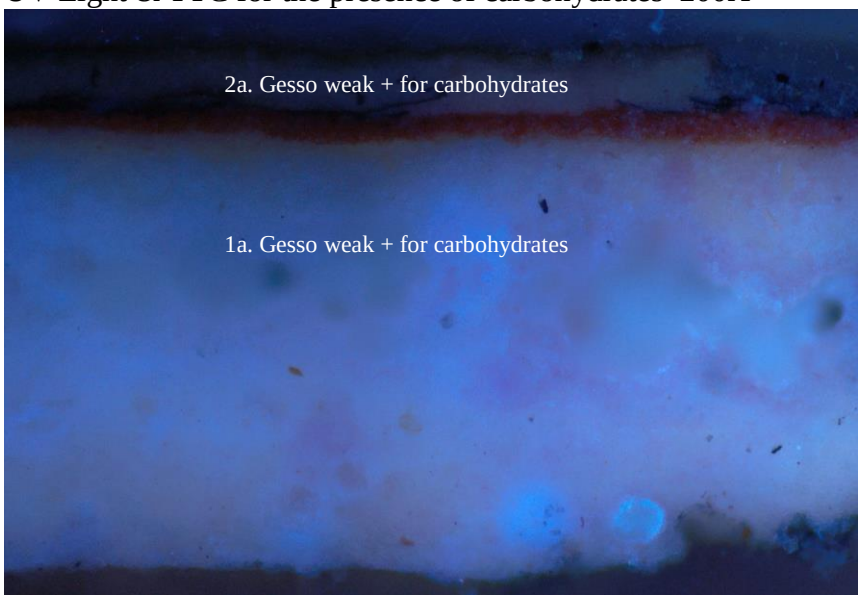


Sample 4. From the bottom of the proper left grape column (#15 on photo map), just above the gilded spiraling element. The sample is from a protected area that shows degraded green paint in the area surrounding, as well as upper layers of what appear to be red and blue overpaint.

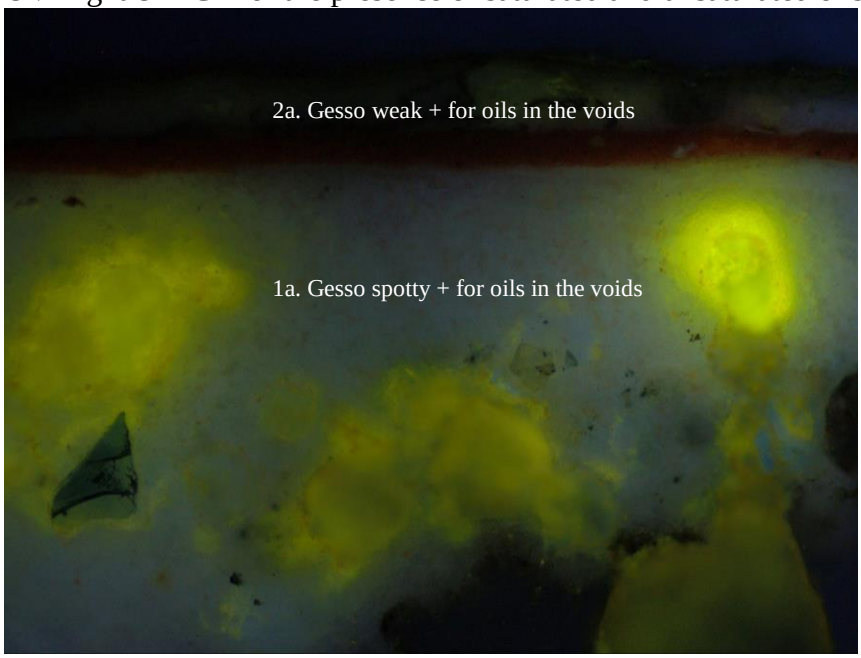
Ultraviolet Light 200X



UV Light & TTC for the presence of carbohydrates 200X

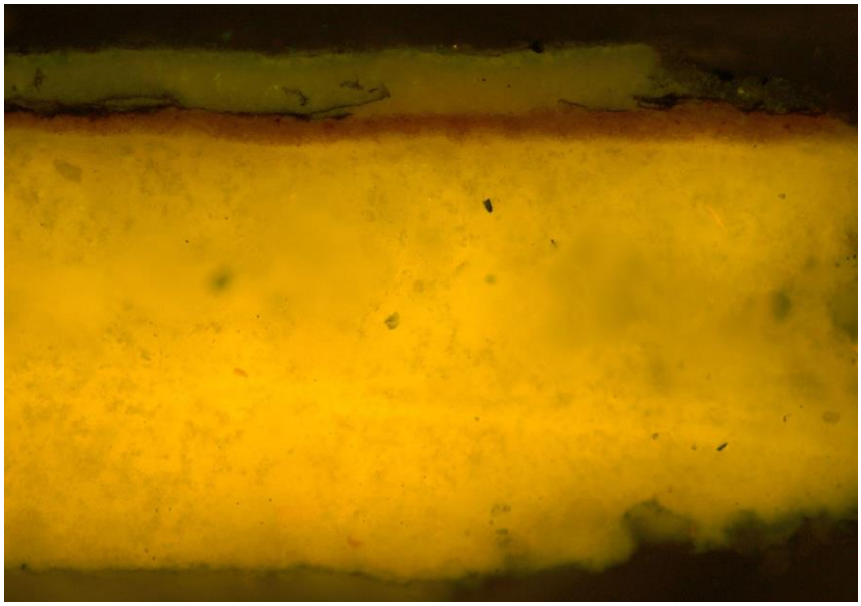


Sample 4. From the bottom of the proper left grape column (#15 on photo map), just above the gilded spiraling element. The sample is from a protected area that shows degraded green paint in the area surrounding, as well as upper layers of what appear to be red and blue overpaint.
UV Light & DCF for the presence of saturated and unsaturated oils 200X

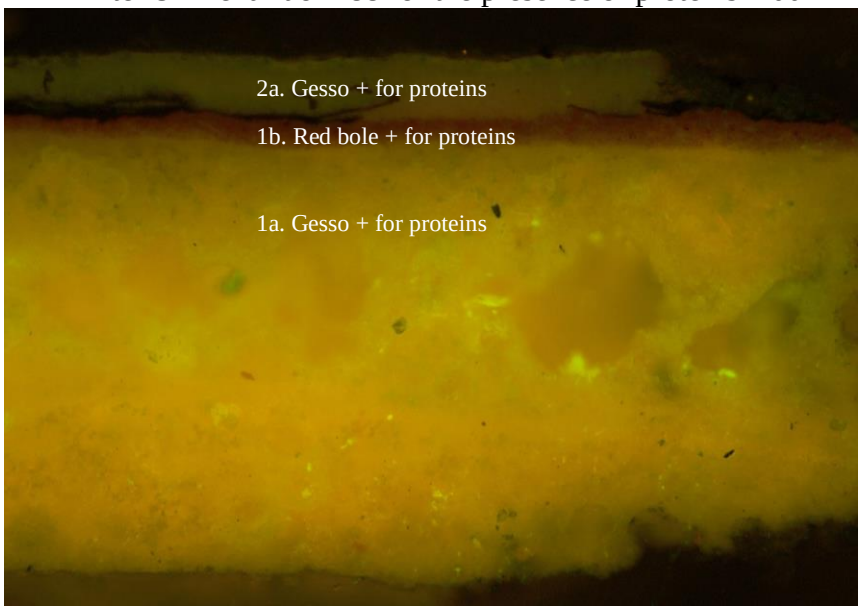


Sample 4. From the bottom of the proper left grape column (#15 on photo map), just above the gilded spiraling element. The sample is from a protected area that shows degraded green paint in the area surrounding, as well as upper layers of what appear to be red and blue overpaint.

B-2A filter 200X

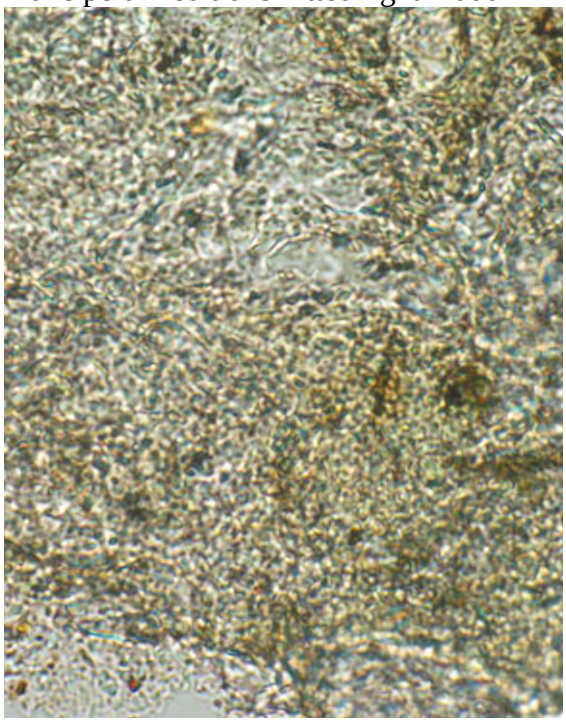


B-2A filter & Alexafluor 488 for the presence of proteins 200X

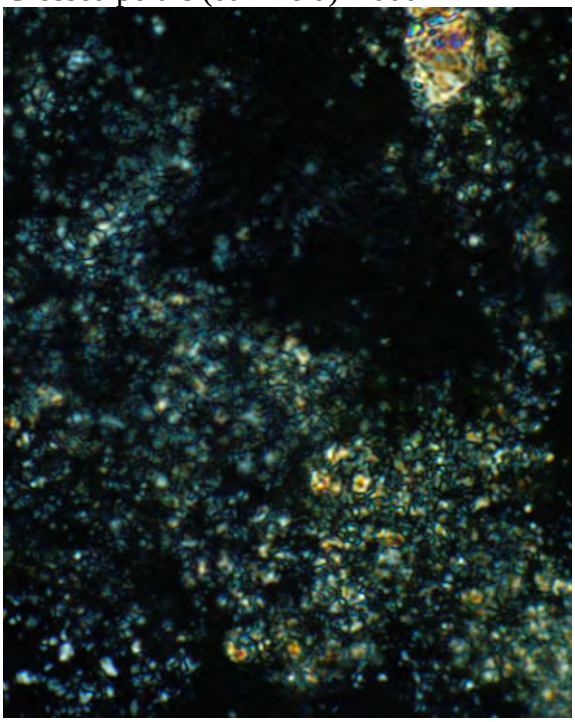


Sample 4. Pigments in the uppermost yellow glaze: scattered yellow ochre and blue verditer particles, with calcium carbonate.

Plane polarized transmitted light 1000X



Crossed polars (darkfield) 1000X



Conclusion:

This small paint analysis project shows there are up to three generations of coatings in the areas sampled, and the original decorative layers survive on all four elements sampled for optical microscopy paint analysis. All of the samples retain what appears to be the original gesso preparatory layer. Sample 1 from the dark background is the only cross-section with two blue paint layers and a thin plant resin varnish coating as the original decorative treatment. The blue paint is composed of the traditional blue pigments blue verditer and a small proportion of natural ultramarine mixed with calcium carbonate.

Samples 2 through 4 have a deep red bole layer on top of the first gesso layer, and there are remnants of what appears to gold leaf on this bole in sample 2 and uneven flakes of what may be silvery metallic leaf on top of the red bole in sample 4. No metallic layer was observed in sample 3. The red bole is composed primarily of tiny red ochre pigments, with larger deep red haematite pigments and a small amount of calcium carbonate. Binding media analysis suggests that the primary organic component in the gesso, blue paint and deep red bole is proteinaceous, and is likely some form of hide glue.

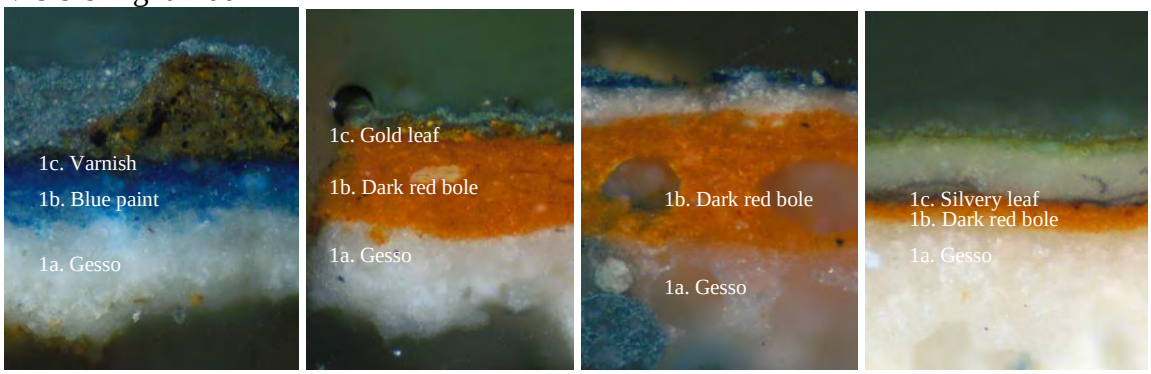
The second generation coatings in samples 3 and 4 are somewhat puzzling in terms of timing. The blue glaze in sample 3 and the yellowish green glaze in sample 4 were applied on top of a thin, finely ground, white gesso. The pigments observed in these glazes (blue verditer, yellow ochre, and Prussian blue) were readily available in the eighteenth century, but it is not possible to say with certainty how early the gesso and glazes were applied. Additional samples from other areas of polychromy may help to provide more context for the findings in samples 3 and 4.

The cross-section images can be aligned to show the similarities and differences in this small group of samples, as shown on the following page.

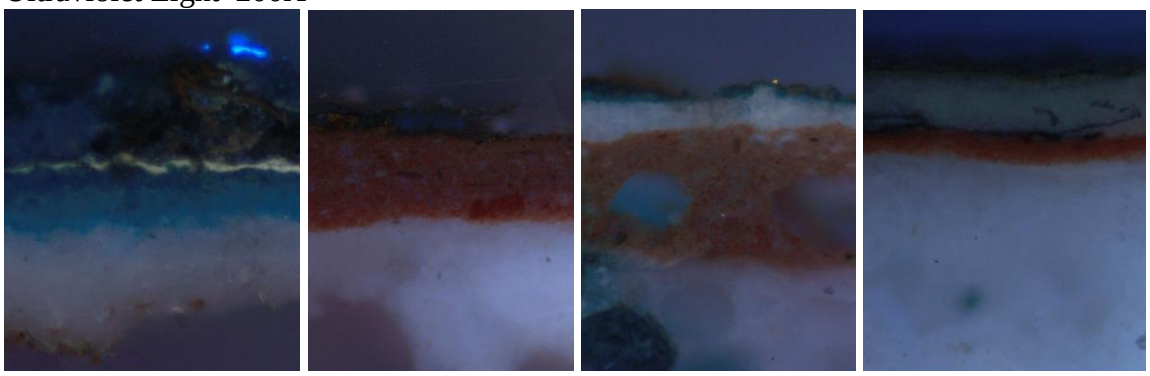
Comparative Coating Stratigraphies

Sample 1 2 3 4

Visible Light 200X



Ultraviolet Light 200X



Cross-section Preparation Procedures:

The polyester resin cubes containing the samples then ground to expose the cross-sections, and dry polished with 400 and 600 grit wet-dry papers and Micro-Mesh polishing cloths, with grits from 1500 to 12,000.

Cross-section microscopy analysis was conducted with a Nikon Eclipse 80i epi-fluorescence microscope equipped with an EXFO X-Cite 120 Fluorescence Illumination System fiberoptic halogen light source and a polarizing light base using SPOT Advanced software (v. 5.1) for digital image capture and Adobe Photoshop CS for digital image management. Photographs and digital images of the best representative cross-sections are included in this report. UV photographs were taken with the UV-2A filter in place (330-380 nanometers excitation with a 400 nm dichroic mirror and a 420 nm. barrier filter). Please note that the colors in the printed photomicrographs may not accurately reflect the actual color of the samples because the colors in the digital images are affected by the variability of color printing.

The following fluorescent stains were used for examination of the samples:

> Triphenyl tetrazolium chloride (TTC) 4.0% in ethanol to identify the presence of carbohydrates (starches, gums, sugars). Positive reaction color is dark red or brown with the UV-2A filter.
>
> Alexafluor 488 (Alexa) 0005% in water, pH 9, 0.5M borate. Positive reaction color is yellow-green with the B-2A filter.
>
> 2, 7 Dichlorofluorescein (DCF) 0.2% in ethanol to identify the presence of saturated and unsaturated lipids (oils). Positive reaction for saturated lipids is pink and unsaturated lipids is yellow with the UV-2A filter.

The best cross-section photographs for each area were mounted and labeled and included with this report. Photographs were taken at 100X, 200X and 400X magnifications.

Information Provided by Ultraviolet Light Microscopy:

When viewed under visible light, cross-sections which contain ground, paint and varnish may often be difficult to interpret, particularly because clear finish layers look uniformly brown or tan. It may be impossible using only visible light to distinguish between multiple varnish layers. Illumination with ultraviolet light provides considerably more information about the layers present in a sample because different organic, and some inorganic, materials autofluoresce (or glow) with characteristic colors.

There are certain fluorescence colors which indicate the presence of specific types of materials. For example: shellac fluoresces orange (or yellow-orange) when exposed to ultraviolet light, while plant resin varnishes (typically amber, copal, sandarac and mastic) fluoresce bright white. Wax does not usually fluoresce; in fact, in the ultraviolet it tends to appear almost the same color as the polyester casting resin. In visible light wax appears as a somewhat translucent white layer. Paints and glaze layers which contain resins as part of the binding medium will also fluoresce under ultraviolet light at high magnifications. Other materials such as lead white, titanium white and hide glue also have a whitish autofluorescence.

There are other indicators which show that a surface has aged, such as cracks which extend through finish layers, accumulations of dirt between layers, and sometimes diminished fluorescence intensity, especially along the top edge of a surface which has been exposed to light and air for a long period of time.

Pigment Analysis:

Pigments from individual layers were dispersed and crushed onto microscope slides, and all were permanently mounted under cover slips with Cargille MeltMount with a refractive index of 1.66. The pigments were identified based on their shape, size, color, optical properties and comparison with a set of standard reference pigments.


תרנ
שנת
אנכי יי
לא יהיה
לא תשא
לא תרצח
לא תנאף
לא תגנב


MyHeritage