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How One Landscape-Painter Paints: The Technique of Sanford Robinson Gifford

ABSTRACT

Sanford Robinson Gifford, the only Hudson River School painter born in the Hudson River Valley, is arguably the most technically accomplished and sophisticated of the school's artists. Many of his pictures involve diaphanous atmospheric conditions, such as mist, fog, or haze, and to achieve these delicate effects, he often used glazes, texture, and translucent under painting. While his technique has been much admired, up to this point, technical analysis on his pictures had not been done.

An article written in the *American Art Journal* in 1877 entitled "How One Landscape Painter Paints" broadly describes Gifford's painting technique. Written three years before he died, the article briefly explains how Gifford prepared the white canvas by staining it with burnt sienna thinned with turpentine, then sketched in white chalk what he intended to paint. It goes on to describe his palette, which consisted of cadmium, vermilion, permanent blue, and a red lake, and how Gifford employed several tints of each of these colors, presumably to achieve his desired effects.

This project focuses on Sanford Gifford's painting technique. Comparisons are made between what was written in the *Art Journal* in 1877 about his materials and techniques and what is actually found in his paintings. Infrared reflectography was used to examine under drawings, SEM-EDX was used to identify pigments, and optical microscopy was used to examine the paint layering technique. The Fogg Art Museum holds twelve of Gifford's sketchbooks, two oil sketches, and one large oil painting. These artworks have been studied and are used to describe Gifford's process.

INTRODUCTION

Sanford Robinson Gifford was one of the most successful and admired of the Hudson River School painters working in the second half of the 19th century. He had very little formal art education, apart from some brief instruction in drawing at the age of 22. After this training, he produced several portraits, but then, as he wrote many years later "During the summer of 1846 I made several pedestrian tours in the Catskill Mountains and the Berkshire Hills, and made a good many sketches from nature. These studies, together with the great admiration I felt for the works of [Thomas] Cole, developed a strong interest in landscape art, and opened my eyes to a keener perception and more intelligent enjoyment of nature. Having once enjoyed the absolute freedom of the landscape artist's life, I was unable to return to portrait painting. From this time my direction in art was determined."¹

¹ Sanford R. Gifford, letter to Rev. O.B. Frothingham, November 6, 1874 Smithsonian Institution, Archives of American Art, Washington, D.C., reproduced on microfilm reel D10.

Indeed, the artist, like many of his colleagues, spent a good deal of time outdoors. Every summer, Gifford traveled throughout upstate New York and New England, where he walked and sketched, then returned to his studio in New York in the winter to paint. He also traveled beyond the Hudson River Valley. He made two trips to Europe, visiting England, Scotland, Paris, Belgium, Holland, Switzerland, Italy, Sicily, Bohemia, Germany, Egypt, Syria, Greece, and Turkey. He spent a total of about three years there, and he walked and sketched much of the way. In 1861, during “the breaking out of the Rebellion”², he joined the Union National Guard where he remained for 6 months, and then, during the 1870’s he made trips out west with a U.S. Geological party, exploring Colorado, Wyoming, Utah, California, British Columbia, and Alaska. Certainly his sensitivity as an artist expanded during these trips, and he collected lots of studies for his paintings, but the main purpose for the travels, he said was “for the sake of general knowledge of different countries and peoples.”³

Sanford Gifford’s paintings are often described as luminous, poetic, or graceful. Most of his pictures are of wide expansive landscapes, sometimes with small figures in the distance or foreground that give a sense of scale. He concerned himself with the effects that clouds, mist, rain, and hazy sunlight had on the landscape. He referred to his landscape technique as “air painting”, that is, he attempted to paint the quality of the air.⁴

Although Gifford’s compositions and effects were much admired, little has been written about his technique. One notable exception is an article written in 1877 entitled “How One Landscape Painter Paints”.⁵ The author of the article, George Sheldon, seems to be interviewing Gifford in his studio and is perhaps being given a demonstration by the artist. Despite the highly romanticized view of the artist-genius at work, much useful information is relayed, including how Gifford began by making small pencil sketches, which he then reproduced in color as an oil sketch, and then, when he was satisfied with the oil sketch, how he would paint the picture itself. Since the Fogg has 12 sketchbooks, two oil sketches, and one finished oil painting by Sanford Gifford, the collection forms a good illustration of Gifford’s technique. The three paintings have been studied, and now the materials and techniques found in the paintings will be compared with the processes described in the article of 1877.

SKETCHBOOKS

Sheldon begins by describing how every great artist can penetrate the causes of beauty in nature and reproduce it, and how an artist differs from a poet only in the materials he

² Gifford, letter to Rev. O.B. Frothingham, November 6, 1874.

³ Gifford, letter to Rev. O.B. Frothingham, November 6, 1874.

⁴ Sheldon, G., “How One Landscape-Painter Paints”, in *Art Journal*, New York, 1877, pg. 284

⁵ Sheldon, pg. 284-285.

uses. Then he goes on “Thus much, perhaps, Mr. Gifford believes in common with every educated artist. But every artist has his own particular method of work, and, in the case of a successful artist, this particular method is always an interesting thing to know.” He then goes on to describe how Mr. Gifford makes small pencil sketches, which he later reproduces in color as an oil sketch. The oil sketch, he says “when satisfactorily finished, is a model in miniature of what he proposes to do”, and then, he will paint the picture itself.⁶

Since the Fogg holds many of Gifford’s sketchbooks, two oil sketches, and one of his large oil paintings, the collection forms a good illustration of Gifford’s technique, from sketch to final varnish.

As mentioned, when Gifford traveled, he sketched extensively. His sketchbooks range in size from small enough to fit into a shirt pocket to about 8x10 inches. The drawings inside tend to be delicate, drawn with a light touch. There are quick figure studies, but usually they are tiny landscapes. Sometimes the landscapes begin on one page and then extend over to fill half of the next page. Sometimes they are very small, the size of a postage stamp, and have little boxes drawn around them (Fig. 1) It appears as though he just wants to get an idea about what the composition would look like, but doesn’t want to spend too much time on a complete drawing. Worthington Whittredge, in his memorial address at Gifford’s funeral in 1880, wrote about sketching with Gifford: “When sketching he preferred to look about for the fleeting effects of nature. He would frequently stop in his tracks to make slight sketches in pencil in a small book which he always carried in his pocket and then pass on, always suspicious that if he stopped too long to look in one direction the most beautiful thing of all might pass him by at his back.”⁷



Fig. 1: page from Gifford sketchbook, 1851/Northern New York, acc. no. 2001.158, 15x22.6 cm, Fogg Art Museum.

Sheldon describes Gifford’s sketches as well. “When he sees anything which vividly impresses him, and which he therefore wishes to reproduce, he makes a little sketch of it

⁶ Sheldon, pg. 284-285.

⁷ Worthington Whittredge, *The Autobiography of Worthington Whittredge*, published in Brooklyn Museum Journal. Brooklyn, 1942. p. 59.

in pencil on a card about as large as an ordinary visiting-card. It takes him, say, half a minute... I have seen some of these simple card-sketches, and they do not seem to amount to much. They enable the artist, however, to keep clear in his memory the scenes that have impressed him, even though he should delay further work for months or for years.”⁸

OIL SKETCHES

The next step, according to Sheldon, is “to make a larger sketch, this time in oil, where what has already been done in black-and-white is repeated in colour. To this sketch, which is about twelve inches by eight, he devotes an hour or two.”⁹ “Ledge in the Catskills” and “Sketch in Kauterskill Clove” are what the artist would have considered oil sketches (Figs. 2 & 3). They are both just over 11 x 13 inches.



Fig. 2: “Ledge in the Catskills”, 1861, oil on canvas, 11x13 inches, acc. no. 2006.1, Fogg Art Museum.



Fig. 3: “Sketch in Kauterskill Clove”, 1861, oil on canvas, 11x13 inches, acc. no. 2005.188, Fogg Art Museum.

The subject, Kauterskill Clove, is located in the Catskills near Gifford’s family’s home in Hudson. He apparently held a strong affection for the location, as he painted it more than any other place.¹⁰ Inscriptions recently found on the backs of the upper stretcher members indicate the view depicted. On the back of “Sketch in Kauterskill Clove” from

⁸ Sheldon, pg. 284.

⁹ Sheldon, pg. 284.

¹⁰ Avery, K.J., and F. Kelly. 2003. Preface and Acknowledgements. In *Hudson River School Visions, the Landscapes of Sanford R. Gifford*, ed. K.J. Avery et. Al. New Haven and London: The Metropolitan Museum of Art New York, pg. 132.

1861 was found “Sunset Rock looking West”. On the back of “Ledge in the Catskills” is “Sunset Rock looking...and then it’s indecipherable- perhaps East or South”. The inscriptions are completely indecipherable in normal light, but when viewed under infrared radiation, they became visible (Fig. 4). One can imagine now when looking at the two pictures that maybe the mountain to the left in “Sketch in Kauterskill Clove” is the same as the one on the right in “Ledge in the Catskills”, and then perhaps one can imagine standing on Sunset Rock and taking in a panoramic view of the Catskills.



Fig. 4: “Sketch in Kauterskill Clove”, back of top stretcher bar. Reflected infrared digital photograph.

The paint in the oil sketches is expertly applied. The artist has underpainted the rocks with a translucent brownish-red that allows the white ground to show through and keep his picture bright. He has used texture and brushstrokes to their full potential. In the sky, for example, the rays from the sun are suggested not with differences in color but with texture (Fig. 5). The mountain forms are created with alternating short strokes and stippling, and the tree trunks are formed with long curving strokes of paint. The impression is that of a quickly, skillfully painted picture. He worked wet-in-wet, not allowing one passage to dry before applying another. A cross section taken from one the pictures shows the mingling of yellow and white where the sun-splashed tree meets the mountains (Fig. 6).



Fig. 5: detail, raking light, “Sketch in Kauterskill Clove”.



Fig. 6: cross section, 500x viewing magnification from “Ledge in the Catskills”.

Examination of the pictures under infrared radiation illuminates the artist's preparatory sketch, which is extensive, but loose (Figs. 7 & 8). In addition to the composition, the artist has drawn a few lines around the periphery of the picture, as if he were blocking out on a larger canvas where he wished to paint this picture. It is reminiscent of his pencil sketches. Both of these paintings have this outline drawn around them, but because they are lined and there are no tacking margins, it is unclear what form the paintings originally had.

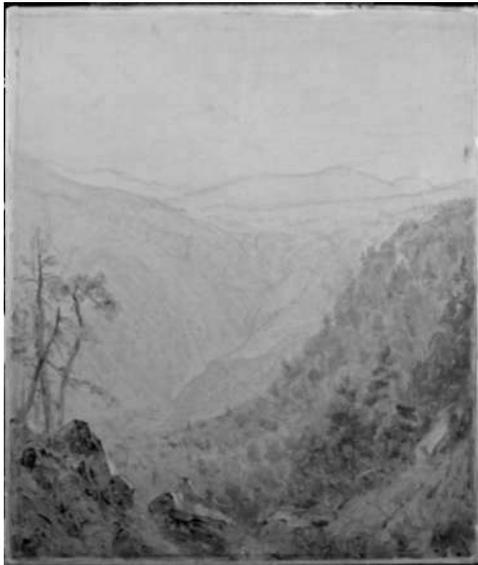


Fig. 7: "Sketch in Kauterskill Clove", reflected infrared digital photograph.



Fig. 8: "Ledge in the Catskills", detail, reflected infrared digital photograph.

In order to understand where and how these pictures may have been made, it has been useful to study documentary evidence of Gifford's technique. A photograph taken in 1870 shows the artist at work in Wyoming territory. He sits on a little portable stool, his sketch box in his lap. The picture he's working on is fixed to the inside of the lid of the box, and he may have a brush in his right hand. Presumably he's working on canvas, judging from the resulting picture, which is now at the Amon Carter Museum in Fort Worth, Texas. The photograph, taken by William Henry Jackson, is dated August 8, 1870 (Fig. 9). The oil sketch is dated August 9, 1870, and measures 8x13 inches (Fig. 10).¹¹ There is also a painting by Gifford entitled "The Artist Sketching at Mount Desert, Maine" from 1864 (Fig. 11), in which we see presumably Gifford making a little sketch in pencil while his painting box sits open on the rocks behind him. We see his palette, brushes, and again we see a little painting fixed to the lid of the box. This would suggest that he was working on pieces of unstretched canvas, perhaps tacked or pasted to the inside of the lid.

¹¹ Harvey, Eleanor Jones, *The Painted Sketch, American Impressions from Nature, 1830-1880*, Dallas Museum of Art, 1998, pgs. 222-223.



Fig. 9: photo by William Henry Jackson, 8 August, 1870, Denver Public Library, Western History Collection.



Fig. 10: Gifford, "Valley of the Chug Water," August 9, 1870, oil on canvas, 8x13", Amon Carter Museum, Fort Worth, TX.

Outdoor or plein-air painting became popular in the second half of the 19th century and was certainly practiced by the new landscape painters. Paints could be purchased in tubes, and artists could buy "sketching boxes" from art supply stores, which may come with a palette, some bottles, and a board.¹² Canvas was usually bought pre-primed, and could be purchased already tacked to stretchers or in large rolls. Some suppliers offered "canvas blocks", described as "thin sketching canvas", sold in "plain or bound blocks" in various sizes.¹³ These may have resembled notebooks filled with primed canvas, so that whenever the artist required a new piece or finished a sketch, it would be torn out and a new one begun.



Fig. 11: Gifford, "The Artist Sketching at Mount Desert, Maine," detail, 1864-65, oil on canvas, 11x19", collection Jo Ann and Julian Ganz, Jr.

The Fogg's oil sketches were almost certainly painted on pre-primed canvas. There are no tacking margins present, as they were presumably removed during lining, but the x-radiographs and examination of cross sections show it is pre-primed. X-radiographs show cusping along one edge of each of the original canvases but not along the other three (Figs. 12 & 13). Cusping or scalloping is an indication of the original edge of a

¹² Katlan, Alexander W., *American Artists' Materials, Vol. II: A Guide to Stretchers, Panels, Millboards, and Stencil Marks*, Sound View Press, Madison, CT, 1992. pg. 331.

¹³ Katlan, pg. 332.

canvas, showing how the canvas has been pulled and attached with tacks to some kind of strainer during priming. During the commercial preparation, large pieces of canvas would be stretched or tacked to large strainers, sized, primed, and then, after drying, rolled. These two paintings, then, likely were cut from one of the edges of a large roll. Three sides do not show scalloping, which would be expected on a pre-primed canvas. Also, cross sections taken from each painting show the canvas was double-primed. Both layers contain calcium carbonate and lead white. The lower layer contains more chalk than lead, and the upper layer contains more lead than chalk. This is a common commercial preparation for 19th century American canvases.

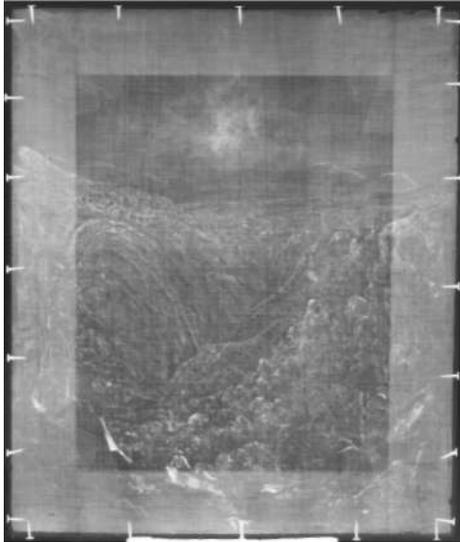


Fig. 12: "Sketch in Kauterskill Clove", x-radiograph.

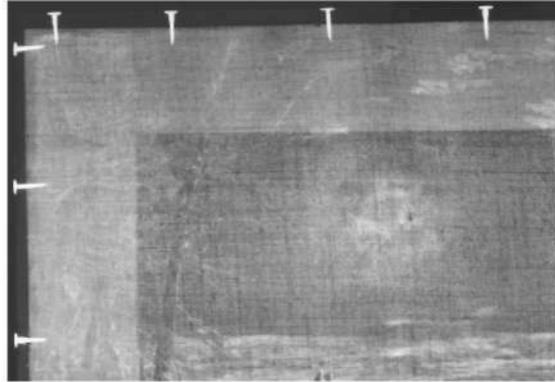


Fig. 13: "Edge in the Catskills", detail, x-radiograph, cusping is present along upper horizontal edge, but not along the other three edges.

For oil sketching, it would have been practical to buy canvas that was not already attached to stretchers, and judging from how the artist drew a line around the periphery of the picture, he cut these canvases out of a larger roll of canvas. He may have painted them, then, on loose pieces of canvas that he later tacked to a stretcher. The pictures we've seen of the artist at work, however, don't show any canvas being left for a tacking margin. One possible solution is that Gifford had the pictures lined. There is no documentary evidence that he had this done, but it may have been a very convenient way to prepare his loose sketches for sale.

OIL PAINTING

After he'd worked out his compositions and colors in his oil sketches, it was time for the artist to paint the picture itself. According to Sheldon the artist would carefully choose the correct day on which to begin. For this day, Mr. Gifford "wishes to be in the best possible physical condition. He is careful about his food; he is careful to husband his resources. When the day comes, he begins work just after sunrise, and continues work until just before sunset. Ten, eleven, twelve consecutive hours...his brush moves rapidly,

almost carelessly...while his pigments are wet and in moveable condition.”¹⁴ The Fogg’s “Leander’s Tower in the Bosphorus” (Fig. 14) is one of Gifford’s large finished oil paintings. Close inspection shows how Gifford used the same colors for the sky and the water, pink at the horizon fading into blue in both the sky and the foreground. Again he’s used texture to differentiate one from the other. The sky is stippled, giving a slightly hazy effect, while the water is painted in smooth horizontal strokes. The buildings on the distant horizon are mere outlines in blue with yellow/orange highlights over a sienna-colored underlayer. The buildings were left in reserve- there is no sky painted under them, indicating a well-planned out painting.



Fig. 14: “Leander’s Tower on the Bosphorus”, 1876, oil on canvas, 19x39”, Fogg Art Museum

Sheldon continues to describe Gifford’s great painting day, “First of all, on this first day, he removes the glaring white of his canvas by staining it with a solution of turpentine and burnt sienna; the reason being that a surface of pure white causes the colours laid upon it to look at first more brilliant than when the canvas is entirely covered with colours. You deceive yourself when you paint upon a white background.”¹⁵ The painting certainly has an overall warm tone, and cross sections taken from both the sky and the water reveal what looks like a thin burnt sienna layer over the white ground (Fig. 15).

Sheldon continues “He then takes a white-chalk crayon and makes a drawing of the picture he expects to paint.”¹⁶ This painting, like the oil sketches, has a full underdrawing that is visible under infrared radiation (Fig. 16). Of course, white chalk should not be visible with IR, so what we see is certainly a black, carbon-based material. Sheldon makes no mention of Gifford drawing on the canvas with pencil, black chalk, or crayon, but it is present in these paintings. The underdrawing media is likely some kind of crayon. SEM-EDX revealed the presence of silica and aluminum in addition to carbon. Silica and aluminum are components of clay, which would be present in crayon but probably not in pencil or charcoal. It is possible that Gifford began his drawing in white

¹⁴ Sheldon, pg. 284.

¹⁵ Sheldon, pg. 284.

¹⁶ Sheldon, pg. 284.

chalk. Some painting manuals from earlier in the 19th century suggest making the initial drawing in white chalk, then, when satisfied, reinforcing it with charcoal or pencil and dusting away the white chalk.¹⁷



Fig. 15: “Leander’s Tower on the Bosphorus”, cross section from upper left edge of sky, 200x viewing magnification. Burnt sienna layer is present just over the white ground.



Fig. 16: “Leander’s Tower on the Bosphorus”, detail reflected infrared digital photograph.

Sheldon then goes on “After that is done, he sets his palette, placing little piles of white, cadmium, vermilion, madder-lake, raw sienna, burnt sienna, Caledonia brown, and permanent blue, one after another along the upper rim, in the order in which I have enumerated them. These are all the manufactured pigments that he uses; they consist of the fundamental red, yellow, and brown, with their lights and darks. Just below this row of pigments he puts another row, consisting of three or four tints of mixed white and cadmium, three or four tints of orange (obtained by mixing the former tints with red), and three or four tints of green (if foliage is to be painted). Along the lower rim of the palette he puts, one after another, several tints of blue. The palette is then ready. The workshop—the battle-ground, if we please—is in the center, between these tints of blue and the tints of orange. Here are created all the thousand special tints which the spectator is soon to see in the picture.”¹⁸

In order to see whether these pigments were indeed present in “Leander’s Tower”, cross sections were examined and pigments were analyzed with the scanning electron microscope. In the sky, the blue is ultramarine, the red is vermilion, the yellow is cadmium yellow, and the white is lead white. At the horizon, the red is vermilion, the blue is ultramarine, and the warm brown contains iron and silica, likely an earth pigment. This painting has no green foliage in it, but it is noteworthy that there is no green on his palette. Sheldon mentions how there would be tints of green when needed, suggesting that he mixed blue and yellow to obtain his greens.

¹⁷ Carlyle, Leslie, *The Artist’s Assistant: Oil Painting Instruction Manuals and Handbooks in Britain 1800-1900 With Reference to Selected Eighteenth-century Sources*, Archetype Publications, London, 2001. pg. 207-208.

¹⁸ Sheldon, pg. 284.

“The first thing that Mr. Gifford paints, when handling a landscape, is the horizon of the sky...Different conditions of the air produce different impressions upon the mind, making us feel sad, or glad, or awed, or what not. Hence the condition- that is, the colour- of the air is the one essential thing to be attended to in landscape painting. Now, the colour of the sky at the horizon is the key-note of the colour of the air. Mr. Gifford, therefore, begins with the horizon.”¹⁹ It does appear as though the artist usually began his pictures by drawing a line for the horizon. In Leander’s Tower, this line has even been left visible in places and serves as a design element (Fig. 17).



Fig. 17: “Leander’s Tower on the Bosphorus”, detail of Leander’s Tower.



Fig. 18: “Leander’s Tower on the Bosphorus”, detail of buildings on horizon line.

After Mr. Gifford has finished a picture, Sheldon explains, he likes to keep it in his studio as long as possible, so that if inspiration strikes, he can do something to help the picture along. Although, he says “...one limitation should be noted here. Mr. Gifford does not experiment with his paintings. He does not make a change in one of them unless he knows precisely what he wishes to do. He does not put in a cow, a tree, a figure, and then take it out again...When Mr. Gifford is done, he stops. And he knows when he is done.”²⁰ It is true that we don’t see any buried cows or trees in this picture- he’s only slightly changed the position of the people in the boat. He does not change much after he’s painted it. He does, however, freely veer from his under-drawing. The position of the trees in the sketch has changed significantly, the position of the buildings in the distance of Leander’s Tower has shifted, and he’s changed the boat. In any case, it is interesting that he takes the trouble to mention his lack of experimentation. Indeed, this picture is well planned out. Looking again at the buildings of Constantinople in the distance, the original burnt sienna layer is serving as the color of the buildings (Fig. 18). He painted the sky just down to the tops of the buildings, then used opaque scumbles to depict the highlights and outlines. This is an extremely efficient method of painting. In the tower, too, he’s merely used a few opaque strokes of paint to define the surface, leaving the translucent, almost glowing, underlayer as the darker tone.

¹⁹ Sheldon, pg. 284.

²⁰ Sheldon, pg. 285.

Finally, the author speaks of Gifford finishing the picture. “Mr. Gifford varnishes the finished picture so many times with boiled oil, or some other semi-transparent or translucent substance, that a veil is made between the canvas and the spectator’s eye- a veil which corresponds to the natural veil of the atmosphere...as the spectator looks through this veil of varnish, the light is reflected and refracted just as it is through the atmosphere...the surface of the picture, therefore, ceases to be opaque; it becomes transparent, and we look through it upon and into the scene beyond.”²¹ A cross section taken from Leander’s Tower shows that he may indeed have glazed the picture multiple times with thin pigmented oil layers (Fig. 19). Here we can see at least three layers above the paint layer. These oil glazes would serve to blend the colors and soften the picture overall.



Fig. 19: “Leander’s Tower on the Bosphorus,” cross section, 500x viewing magnification under ultraviolet light, showing glaze layers above paint layer.

CONCLUSION

In conclusion, Gifford’s technique corresponds quite closely to what is described in Sheldon’s article, most specifically his use of a burnt sienna imprimatura layer, his choice of pigments, and his tendency not to change the design after it was first painted. The one process in which the article did not correspond to the painting was in Gifford’s underdrawing. The artist clearly used dark carbon-based drawing materials, even though the article only mentions white chalk, and his use of this material is not limited to the Fogg’s paintings. In most of Gifford’s paintings, even when viewed with just the naked eye, an underdrawing is visible. The artist used many of the same techniques in his oil sketches as he did in his finished painting, including a white ground, translucent underpainting, a bright but subdued palette, and charismatic brushwork. There are also differences. He did not give these oil sketches a uniform burnt sienna under-layer – instead he selectively under-painted passages, such as the rocks, then scumbled over them. He used a slightly broader palette, including either zinc white or zinc yellow and possibly chrome red. Generally, there is only one layer of paint in the oil sketches, and no glazing. The finished oil paintings are larger and may have glazes, both of which separate the viewer from the painting. The oil sketches feel more immediate and demand more intimacy, creating a different effect.

Sanford Gifford died in 1880, at the age of 57. After his death, he became the first artist to have a solo exhibition at the Metropolitan Museum of Art. Along with that exhibition

²¹ Sheldon, pg. 285.

came the Met's first published catalogue raisonné,²² and of the 700 works listed in that catalogue, more than half are unaccounted for today.²³ Clearly it would be beneficial to continue to study Gifford's paintings, both for the sake of future authentication issues and for the joy of understanding better how one successful landscape painter paints²⁴

ACKNOWLEDGMENTS

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²² Philippe de Montebello and Earl A. Powell III, "Director's Foreword" in *Hudson River School Visions, the Landscapes of Sanford R. Gifford*, Kevin J. Avery and Franklin Kelly, eds. The Metropolitan Museum of Art, New York and Yale University Press, New Haven and London, 2003. pg vii.

²³ Avery, pg ix.