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editorial notes

image notes/links to glossary/links to other parts of entry or catalogue (underlining = in-line image)

updates/forthcoming/conservation notes

JS/GG edits/discussion points

THE ART INSTITUTE OF CHICAGO

CONSERVATION DEPARTMENT

19th Century Catalogue Examination Report

Artist: Camille Pissarro	Museum Number: 1957.306
Title (Date): <i>On the Banks of the Marne in Winter</i> (1866)	Structure: Oil on canvas
Owner/Dept: MMEPS	Size: 90.6 x 150.2 cm (35 5/8 x 59 1/8 in)
Conservator: kelly keegan	Date Examined: 7 August 2012

Technical Summary:

Using a non-standard-size, twill-weave support, the artist used wet-in-wet modeling and heavy application of paint with a palette knife to articulate the landscape. X-ray and infrared examination indicate an earlier composition that featured a large group of trees at the upper left, a low horizon line with sweeping clouds occupying almost half of the canvas, and opposing diagonals in the foreground landscape with elements at right mirroring those at the left (overlay). The texture of many of these elements can be seen under normal viewing conditions and evidence of earlier paint layers is visible along the turnover edges. A small figure and falling tree in the left foreground have also been painted out. The artist also executed the foreground of the visible composition first with a muted, brown palette before applying deep greens to large portions of the composition. The work is currently varnished.

Signature
Signature/Stamp: Signed lower right, red and brown <i>C. Pissarro 66</i> ¹ (<u>MAC1, MIC 8</u>)
Structure and Technique
Support
Canvas: <u>Flax, commonly known as linen</u> ²
Standard Format: The original size of the canvas is unclear, as the tacking margins were removed in a previous treatment, but appears to be close to its current dimensions: 90.6 x 150.2 cm. ³ This appears to be a non-standard size. ⁴

¹ The artist first signed his name in bright red, and later painted over with one to two layers of brown/black.

² Microscopic cross-sectional fiber identification by I. Fiedler, see [analytical report file name] (date).
Conservation Object File, Art Institute of Chicago.

³ Interestingly, *L'Hermitage à Pontoise* (Wallraf-Richartz Museum) from the following year is roughly the same size (91.0 x 150.5 cm) suggesting this non-standard choice was deliberate. From a materials standpoint, the paintings also share stretcher construction, format/handwriting of a verso inscription on the stretcher, and fabric

Weave: Twill weave (1x2). Average thread count (standard deviation): (27.1)V (0.6) x (19.6)H (1.4) thr/cm. The vertical threads were determined to correspond to the warp and the horizontal threads were determined to correspond to the weft. ⁵
Canvas characteristics: There is strong scalloping on all four sides related to original tack placement. Thread thickness varies greatly in the warp threads while thread count and density vary greatly in the weft. The weft thread count diagram indicates there are three bands of weft density: the upper third is woven rather tightly, while the middle third is slightly looser and the lower third, loosest. (weft thread count)
Stretching: Current stretching: The work is currently lined; its original tacking margins have been removed and is stretched by the second lining canvas. Original stretching: scalloping in the x-ray corresponds to tacks placed c. 5-8 cm apart.
Stretcher/strainer: Current stretcher: It is unclear whether the current stretcher is original to the painting, however its design and patina suggest if not original, it was added early in the painting's life. It is a six-member keyable stretcher with horizontal and vertical half-lap joint crossbars; depth: 2.1 cm ⁶ (VRS)
Manufacturer's/supplier's marks: None observed in current examination or documented in previous examinations.
Preparatory Layers
Sizing: If evidence of sizing, describe Not determined (probably glue) Not determined = no visible layer in cross section/no cross sections taken
Ground Application/Texture: It is unclear whether the ground was applied to the canvas before or after it was stretched, as the tacking margins have been removed (see Conservation History). The ground appears to extend to the edges of

weave (both are twill, although the WRM painting is specifically herringbone). See "Brief Report on Technology and Condition: Camille Pissarro *L'Hermitage near Pontoise*," [PUBS: location is presented in German here, and therefore spelled differently – do we use [sic] ?] in *Research Project Painting Techniques of Impressionism and Postimpressionism*, online catalogue:

http://www.museenkoeln.de/ausstellungen/wrm_0802_impressionismus/03_abbzoom.asp?lang=en&pg=&typ=kuenstler&val=19&iid=32 (accessed 31 August 2012). [Not sure where to put this information but I felt it was important to include. Do we want to mention the *Bords de la Marne a Chennevieres at the National Gallery of Scotland (1865, 91.5 x 145.5)* or investigate its stretcher, weave, etc.?] JS/GG: Discuss inclusion of Scotland painting w RB

⁴ The closest standard size is *Marine 80* (146 x 89 cm). Standard sizes available from Lefranc & Co., c. 1863. Standard size chart reproduced in David Bomford, Jo Kirby, John Leighton, and Ashok Roy, *Art in the Making: Impressionism*, exh. cat. (National Gallery, 1990), p. 45.

⁵ Thread count and weave information were determined by Thread Count Automation Software. See C. Richard Johnson Jr., Don H. Johnson, and Robert G. Erdmann, "Thread Count Report: *The Banks of the Marne in Winter 1866* (PS107 / 1957.306)," Aug. 2012. (link to pdf thread count report)

⁶ As mentioned, *L'Hermitage à Pontoise* (Wallraf-Richartz Museum) from the following year is roughly the same size (91.0 x 150.5 cm) shares the same stretcher construction, format/handwriting of a verso inscription on the stretcher, and fabric weave (both are twill, although the WRM painting is specifically herringbone). See "Brief Report on Technology and Condition: Camille Pissarro *L'Hermitage near Pontoise*," [PUBS: location is presented in German here, and therefore spelled differently – do we use [sic] ?] in *Research Project Painting Techniques of Impressionism and Postimpressionism*, online catalogue:

http://www.museenkoeln.de/ausstellungen/wrm_0802_impressionismus/03_abbzoom.asp?lang=en&pg=&typ=kuenstler&val=19&iid=32 (accessed 31 August 2012). JS/GG: Discuss inclusion of Scotland painting w RB

⁷ The presence of a sizing layer is difficult to determine from cross sections due to previous conservation treatments (such as lining, etc.).

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the remaining canvas in stereo-microscopic examination (MIC2). None of the ground is left visible in the finished composition.

Color:

The ground appears to be white or slightly off-white (add ground analysis)

Materials/ Composition:

add XRF/ ground analysis (list pigments/extenders); binder: oil (estimated)⁸

Compositional planning/underdrawing/painted sketch

Extent/character:

No underdrawing was observed with infrared reflectography (IRR) or microscopic examination.

Medium/technique:

Uncertain: no drawing visible in IR or microscopy due to the thickness of the paint.

Paint Layer

Application/technique and artist's revision:

[Note: the compositions to which I refer as well as the amount of detail relating to their description in comparison with Banks of the Marne can be adapted around the curatorial essay, preferred descriptions and comparative illustrations as necessary. -kk]

It appears the artist may have started a composition quite different from the visible painting, carrying some elements from earlier forms into the later arrangement. The x-ray indicates a group of trees at the far left nestled into the low hills.⁹ (Add OVR/dtls) Curving forms extending from the bottom of the large area of foliage may refer to trunks of another, perhaps unrelated element of either composition. The trees were very thickly painted and may have been partially scraped back before being painted over, however their texture is clearly visible in the upper left quadrant of the painting under normal viewing conditions. Small areas of loss along the turnover edge at left also suggest something of the palette of these trees, featuring many of the same deep greens and browns seen throughout the visible composition (MIC 12a) [check against ground/pigment analysis].

The earlier composition as seen in the x-ray also featured a much lower horizon line, beginning roughly in the middle of the canvas at the left edge, with low hills rolling slightly downward and leveling off toward the right. This early horizon line is largely obscured by the low line of soft, light brown trees or shrubbery extending across the background along the far side of the riverbank. The strongly articulated clouds are seen to take up almost half of the canvas in the x-ray, extending all the way to the early horizon line before the higher, sloping hills of the current composition were added. The x-ray also indicates that at some point the first horizon may have sloped upward again at the far right, to the level of the current horizon. The foreground of this earlier composition also featured a more symmetrical arrangement of opposing diagonals moving backward in space toward a more central vanishing point. (Add OVR) Here, landscape elements running from the center mid-ground outward toward the lower right, almost mirror similar compositional lines at left. Microscopic examination of the right edge

⁸ The ground composition was analyzed using scanning electron microscopy coupled with energy dispersive X-ray spectroscopy (SEM-EDX), polarized light microscopy (PLM), and X-ray fluorescence spectroscopy (XRF). For more detailed results and conditions used, see author, "report name," date. Conservation Object File, Art Institute of Chicago. (list all relevant reports, e.g. XRF, analytical ...)

⁹ Mary Sebera previously identified this group of trees as one large tree, probably in the foreground. The absence of a trunk in addition to the presence of a similar motif in *Bords de la Marne* (1864, 81.9 x 107.9cm, Art Gallery and Museum, Glasgow (comp ill?)) among others, has led to the current interpretation. See Mary Sebera, "Technical Notes," *Pissarro: Creating the Impressionist Landscape*, Katherine Rothkopf, ed., exh. cat. (Baltimore Museum of Art, 2007) appendix. [edit based on curatorial essay]

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reveals light gray underlayers that may relate to this **radio-opaque** form, possibly indicating the presence of water or snow¹⁰ (**MIC15**).

Other smaller changes can be seen at the left where a single, loosely articulated figure appears to have been painted out of the lower left foreground path.¹¹ Additionally, the infrared image indicates one of the trees at left was first executed falling toward the left; in the final composition, this tree appears upright, even with the rest of the row. (**Add OVR/dtl**)

The current landscape seems to have been executed directly over the previous forms while they were still soft, without an interlayer or any painting out. Close examination of the surface also reveals this landscape was first painted in reddish-browns and tans.¹² These earlier tones can be seen in more thinly-painted areas of the foreground as well as in **traction cracks** (**MIC 5**). Many of the green tones seen throughout the landscape appear to have been added near the end of the painting process.

The artist used stiff-bristle brushes and a palette knife to articulate forms, painting largely wet-in-wet (**MIC 4, MIC 1**). The presence of traction cracking and wrinkling of the paint also indicates the artist continued to change the composition and applied additional paint before the underlayers were fully dry (**MIC10**). Many details in the work including the figures and horse, were summarily executed as final details in only a few strokes (**MIC 11 or MIC 9**).

Painting tools:

wide variety of brush width and thickness: up to 1.5 cm strokes, both soft and stiff bristle; palette knife

Palette:

(if pigment analysis, note pigments, and describe additional unidentified pigments in cross sections/scrapings or present visibly on the surface or under UV: **Additional visual identification**)
Analysis indicates the presence of the following pigments: *list*¹³

The painting features complicated pigment mixtures as well as wet-in-wet modeling and mixing of colors on the painted surface. Coarsely-ground pigments can be seen clearly in stereo-microscopic examination.

Binding Media:

oil (estimated)¹⁴

Surface Finish

¹⁰ *Bords de la Marne* (1864, 81.9 x 107.9cm, Art Gallery and Museum, Glasgow), in addition to the group of trees at left, features the river at the lower right.

¹¹ Mary Sebera has interpreted this form as a cow in a vertical landscape. See Mary Sebera, "Technical Notes," *Pissarro: Creating the Impressionist Landscape*, Katherine Rothkopf, ed., exh. cat. (Baltimore Museum of Art, 2007) appendix.

¹² A reddish-brown palette is also seen in the c. 1866 study for this painting, *Bords de la Marne en hiver, etude* (Private Collection, **comp. ill?**).

¹³ *If only one technique used or same techniques used for all pigments:* "Pigments identified by [technique(s)]; *if multiple techniques:* pigment name (techniques used). Analysis was carried out on selected areas and may not include all pigments present in the painting. *List relevant publications, internal reports, etc:* see (author), "file name" (date). *If XRF is only technique used, include:* "XRF analysis was carried out in air. XRF does not detect organic pigments, if present, and has low sensitivity for elements like silicon and sodium (a component of ultramarine blue)."

¹⁴ The binding medium was not analyzed. The estimation of an oil medium is based on visual examination, as well as knowledge of [artist]'s technique and published analyses of [artist's] paintings. (*Consider adding references if relevant*)

Varnish layer/media:

The painting has remains of a natural-resin varnish throughout, especially in the foreground (UV), and has an overall synthetic varnish.¹⁵

Conservation History

The painting was first examined upon acquisition in 1957, at which point it was noted as double-lined with two canvases and aqueous adhesive.¹⁶ The painting was also noted at that time as having a selectively-, or partially-removed natural resin varnish with some obvious retouching visible in UV examination, and other retouching visible in stereo-microscopic examination. In this early examination, it was recommended that both linings be removed, and that the painting be cleaned and re-varnished before travel, however it does not appear this was ever undertaken. An examination in 1961 noted scratches at lower center.¹⁷ A 1986 treatment included removal of two synthetic varnishes, including a heavily discolored Lucite varnish, revarnishing with B72 and limited inpainting.¹⁸

Condition Summary:

The painting is currently in good condition, double-lined, planar and varnished with both B72 and the remainder of the selectively removed natural resin varnish noted in 1957. This varnish and most retouchings are visible in ultraviolet examination (UV). The tacking margins of both the original and first lining canvas have been removed and can be seen where the paper tape covering the edges of the work is missing (MAC2). There is pronounced cracking throughout the work and minor losses to the edges. The painting has much wrinkling and additional traction cracking throughout, likely the result of the artist's thick painting style and numerous compositional changes.

Frame

Design/Origin:

TO ADD

Current frame (date):

Previous frame (date):

Labels and inscriptions

Undated

Inscription

Location: stretcher

Method: handwritten script

¹⁵ It is unclear whether Pissarro would have varnished this painting or approved of its being varnished. There is documentary and material evidence that Pissarro may have allowed earlier paintings to be varnished "with a colorless varnish" and cross sections from *Festival at l'Hermitage* (1876-8, Courtauld Institute of Art (cat rais#?)) indicate a layer of varnish between the original and artist-reworked compositions. See Aviva Burnstock, "Impressionist paintings in the Courtauld Gallery: Making inferences from recent technical studies," *Zeitschrift für Kunsttechnologie und Konservierung* 22: 2 (2008), p. 296.

¹⁶ Louis Pomerantz, "Report of Examination," Oct. 30, 1957. Conservation Object File, Art Institute of Chicago.

¹⁷ (Anon.) "Condition Note," July 24, 1961. Conservation Object File, Art Institute of Chicago.

¹⁸ Faye Wrubel, "Treatment Report," Jan. 16, 1986. Conservation Object File, Art Institute of Chicago.

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Content: *[illegible; appears to be an encircled number or letter]* (VRS str circle)

Label

Location: stretcher

Method: handwritten script (graphite) on brown label

Content: RX2281 (VRS str RX2281)

Label

Location: stretcher

Method: unknown

Content: *[illegible; inscription is scratched off]* (VRS str RX2281)

Number

Location: stretcher

Method: handwritten script (black paint?)

Content: 57.306 / [R]X2281 (VRS str 57306)

Label

Location: stretcher

Method: printed label

Content: BUREAU EXPÉDITEUR / [...]A VARENNE / BAGAGES. / [3] (VRS str varenne)

Number

Location: stretcher

Method: handwritten script (black paint?)

Content: 57.306 (VRS str AICno)

Inscription

Location: stretcher

Method: handwritten script

Content: 244 Paysage à la Varenne St. Hilaire (VRS str StHilaire)

Label

Location: stretcher

Method: handwritten script on blue and off-white label

Content: 263/51. (VRS str 26351)

Inscription

Location: stretcher

Method: handwritten script (white chalk)

Content: W08705 (VRS str W08705)

Inscription

Location: stretcher

Method: handwritten script (graphite) on masking tape

Content: REID + LEV[]RVE [sic] – USA (VRS str USA)

Label

Location: stretcher

Method: printed label

Content: MANTES EMB / 5 / [PA]R[I]S (VRS str mantes)

Number

Location: stretcher

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Method: handwritten script (graphite)

Content: 81/25 (VRS str 8125)

Pre-1980

Label

Location: stretcher

Method: printed label

Content: Direction des Musées Nationaux / Exposition du Centenaire de la naissance de / Camille
PISSARRO / PARIS / Musée de l'Orangerie des Tuileries / *Février – Mar[s] 1930* / No _____
(VRS str lorangerie)

Stamp

Location: canvas verso

Method: black circular stamp

Content: [DOUANE / PARIS / EXPOSITION] (VRS douane)

Post-1980

Stamp

Location: stretcher

Method: blue stamp

Content: Inventory 1981-1982 (VRS str inventory)

Label

Location: stretcher

Method: printed and typed label with blue stamp

Content: THE ART INSTITUTE OF CHICAGO / CHICAGO ILLINOIS 60603, U. S. A. / To / Pissarro,
Camille (French, 19th c.) / On the Banks of the Marne, Winter 1866 / Mr. and Mrs. Lewis Larned Coburn
Memorial Fund / 1957.306 / [at right] Inventory 1981-1982 (VRS str AIClabel)

Label

Location: backing board

Method: printed and typed label

Content: THE ART INSTITUTE OF CHICAGO / artist Camille Pissarro / title The Banks of the Marne
in Winter / 1866 / medium oil on canvas / credit Mr. and Mrs. Lewis Larned Coburn / Memorial Fund /
acc. # 1957.306 / LZ-341-001 1M 1/90 (Rev. 1/90) (VRS bb AIC)

Label

Location: backing board

Method: printed label

Content: 156 / Camille Pissarro / *Bords de la Marne en hiver* / (*The Banks of the Marne in Winter*) / Oil
on canvas / The Art Institute of Chicago, Mr. and Mrs. Lewis L. Coburn / Fund, 1957 / ORIGINS OF
IMPRESSIONISM / The Metropolitan Museum of Art / September 27, 1994-January 8, 1995 (VRS bb
Origins)

Label

Location: backing board

Method: handwritten script on printed label with stamp

Content: [logo] (m) / *Réunion des musées nationaux Paris* / Bords de la Marne en hiver / [stamp]
IMPRESSIONNISME, LES ORIGINES, 1859 -1869 / Galeries nationales du Grand Palais / 19 avril – 8
août 1994 / *Titre de l'œuvre* : *Propriétaire*: Art Institute of Chicago / *N° du Catalogue* 156 (VRS bb
reunion)

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Label

Location: backing board

Method: printed label

Content: PIONEERING MODERN PAINTING: CEZANNE AND PISSARRO / Camille Pissarro *The Banks of the Marne in Winter*. 1866 / Museum No.: 2005.146 / Lender: The Art Institute of Chicago / The Museum of Modern Art / 11 West 53rd Street, New York, New York 10019 (VRS bb MoMA)

Label

Location: frame verso

Method: handwritten script on printed label

Content: [logo] Thermo Lignum / This object has been treated with the patented / environmentally-friendly THERMO LIGNUM / process. / We guarantee that it has been completely / freed from infestations without the use of / chemicals. / Date: 1 Oct 99 / [at right] Inv. # 837 / gilded picture / frame / [initials: WR?] / For and on behalf of Thermo Lignum UK Ltd (VRS frm thermo)

Label

Location: frame verso

Method: printed label

Content: Arnold Wiggins & Sons / Limited / 4 Bury Street / St. James's / London SW1 / Picture Frame Makers / Carvers and Gilders [left] BY APPOINTMENT / TO H. M. QUEEN ELIZABETH II / PICTURE FRAME MAKERS [right] BY APPOINTMENT / TO H. M. QUEEN ELIZABETH / THE QUEEN MOTHER / PICTURE FRAME MAKERS (VRS frm Wiggins)

Examination and Analysis Techniques

X-radiography

Westinghouse X-ray unit, scanned on Epson Expressions 10000XL flatbed scanner (when applicable) scans digitally composited by Robert G. Erdmann, University of Arizona.

Infrared Reflectography

Inframetrics Infracam with 1.5 – 1.73 μ m filter; FUJIFILM S5 Pro with X-Nite 1000B – 2mm filter (1.0-1.1 μ m); Goodrich/ Sensors Unlimited SU640SDV-1.7RT (H filter = 1.1 – 1.4 μ m; J filter = 1.5 – 1.7 μ m)

Transmitted Infrared

FUJIFILM S5 Pro with X-Nite 1000B – 2mm filter (1.0-1.1 μ m)

Visible light

Normal-light, raking-light, and transmitted-light overalls and macrophotography: FUJIFILM S5 Pro, with X-NiteCC1 filter

Ultraviolet

FUJIFILM S5 Pro, with X-NiteCC1 filter and Kodak Wratten 2E filter

High-resolution visible light (and UV)

Sinar P3 camera with Sinarback evolution 75H (add filters)

Microscopy and photomicrographs

Sample and cross section analysis using Zeiss AxioPlan2 Research Microscope equipped with reflected light/UV fluorescence and a Zeiss AxioCam MRc5 digital camera. (Types of illumination used: darkfield, DIC (Differential Interference Contrast), and UV fluorescence. In situ photomicrographs with Wild Heerbrugg M7A StereoZoom Microscope fitted with Olympus DP71 microscope digital camera.

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X-ray Fluorescence Spectroscopy (XRF)

Several spots on the painting were analyzed in situ with a Bruker/Keymaster TRACeR III-V with Rhodium tube.

Polarized Light Microscopy (PLM)

Zeiss Universal Research Microscope

Scanning Electron Microscopy/Energy Dispersive X-ray Spectroscopy (SEM/EDX)

Cross sections analyzed after carbon coating with Hitachi S3400-N-II VPSEM with Oxford EDS and Hitachi solid state BSE. Analysis was performed in the EPIC facility of the NUANCE Center at Northwestern University.

Automated thread counting

Thread count and weave information were determined by Thread Count Automation Software.¹⁹

Image Registration Software:

Overlay images registered using a novel image-based algorithm developed by Damon M. Conover (GW), Dr. John K. Delaney (GW, NGA), and Murray H. Loew (GW) of the School of Engineering and Applied Science, The George Washington University, and the National Gallery of Art, Washington, D.C.²⁰

Camera info does not include fstop, ISO, exposure, etc.; XR does not include kV, etc.

¹⁹ See Don Johnson, C. Richard Johnson, et al., “A Thread Counting Algorithm for Art Forensics,” *Proceedings of the 13th Annual IEEE Digital Signal Processing Workshop* (Jan. 2009), pp. 679–84, DSP 12.2.

²⁰ See Damon M. Conover, John K. Delaney, Paola Ricciardi, and Murray H. Loew, “Towards Automatic Registration,” *Computer Vision and Image Analysis of Art II, Proceedings of SPIE* 7869 (2011).