Material and Process in Georges Braque’s Still-Life Paintings, 1928–1944

Based on a conservation study conducted by

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Introduction

*I have always been very much engaged and preoccupied by the material, because there is as much sensibility in the technique as the rest of the picture.*

– Georges Braque

To learn more about the intricate textures, subtle variations of surface, and visible reworking in the midcareer paintings of Georges Braque, a team of conservators and conservation scientists conducted an in-depth study of a selection of Braque’s still lifes from 1928 to 1944, all of which discussed here are on view in this exhibition.

To examine the works, the team used a variety of techniques, beginning with visual inspection both with the naked eye and with the aid of a stereomicroscope. To look beneath the surfaces of these paintings, the team used infrared reflectography, x-radiography, and ultraviolet and transmitted light. In addition, microscopic samples taken from four pictures were analyzed to further understand the structure of the paint layers, the pigments, and the materials Braque added to the paint.

The findings of the study offer important new insight into the artist’s profound interest in the painting process and the possibilities of his materials as he sought to expand the experience of pictorial space.

Overall Texture in the Ground Layer

Braque often added sand and fine gravel to the ground layers, the first layers of paint applied to the canvas, to create a textural foundation for a painting. He mixed the sand into the paint before applying it to the canvas and also sprinkled it on top of the ground, pressing it into the still-wet paint.

Paint and Surface

*I take advantage of all the differences offered by the material…. I play with the differences and this gives me greater variety.*

– Georges Braque

Braque was immersed in the painting process from the ground up, so to speak. Rather than using commercially prepared canvases, he often stretched and prepared the canvas supports for his paintings himself. While he used the traditional materials of oil painting, he often manipulated them in experimental ways to emphasize the materiality of the paint and to create a tactile as well as visual space.

A detail of *The Round Table* (1929) shows sand particles of various sizes both mixed into the paint and on top of a white ground layer.

In a paint cross-section taken from *The Round Table*, a sand particle—identified as feldspar using a scanning electron microscope—is fully incorporated into the white ground layer, showing that the sand was mixed into the paint before it was brushed onto the canvas.

As this detail of * Pewter Pot and Plate of Fruit* (1944) shows, Braque’s use of matte black backgrounds adds a sense of depth to the picture. In contrast, the texture of sand in the ground layer emphasizes the paint surface, which creates subtle spatial tension.
Localized Texture in the Paint Layers

In many paintings Braque added texture to discrete sections using a variety of tools and techniques, some carried over from his earlier Cubist years, and he often juxtaposed contrasting textures within a single area of the composition.

In *Still Life with Palette* (1943), Braque dragged a graining comb through brown paint to suggest the texture of wood in the palette. In the background, thick blue and yellow cords of paint appear to have been applied directly from the tube.

Braque indicated wood grain in *The Round Table* (1929) by scoring the paint with a multipronged tool similar to those used by sculptors for modeling clay or plaster.

To create the marble pattern to the right of the pitcher in *Lemons and Napkin Ring* (1928), Braque used a brush and possibly a sponge to stipple brown and white paint over an ochre base color. The vein in the marble pattern was created with a broad stroke of white dragged through the still-wet underlying paint. To the left of the faux marble, Braque contrasted a simple pattern of distinct and haphazard brushstrokes in the thin gray paint.

Manipulation of Paint Media for Surface Variety

Braque's paint surfaces have a variety of textures and sheen rather than an overall, uniform finish. He often modified the oil medium to adjust the consistency, opacity, and gloss of the paint for specific effects. By contrasting matte and gloss, opacity and translucency, Braque explored new ways to influence the perception of space and color in his compositions.

In *Pewter Pot and Plate of Fruit* (1944), the green paint (a mixture of Prussian blue and Hansa yellow pigments bound in oil) is particularly matte and opaque. It appears to be mixed with just enough oil medium to bind the pigment together. The small, circular depressions visible in the paint surface are remnants of air bubbles in the wet paint. These were likely created from Braque vigorously mixing the paint, perhaps in one of the tin cans that littered his studio, before he brushed it onto the canvas.

In *The Washstand* (1944), this same green paint appears translucent, with a slightly glossy finish achieved by mixing varnish into the paint. Analysis found that Braque also added beeswax—most likely as a paste dissolved in turpentine—which gives the paint smooth handling properties and a satin gloss when dry.
Braque’s color choices demonstrate an interest in versatility and material contrasts. Earth pigments—umbers and iron oxides—along with bone, vine black, and a variety of whites—lead white, zinc white, and, later, lithopone—form the foundation of his palette. In the late 1920s he added more bright, pure color, with which he experimented throughout the 1930s. This palette remained largely consistent even as his style evolved and he shifted to using more muted tones during World War II.

In *Still Life with Pink Fish* (1937), Braque contrasted the opacity and cool, bluish tone of chromium oxide green, used to paint the tablecloth, with the relative warmth and transparency of emerald green, here mixed with white and applied over black paint to describe the background pattern.

The *Round Table* (1929) was one of Braque’s earliest paintings to feature washes of bright, pure color against a foundation of earth browns, white, and black. Here he used vermilion red, a traditional warm red pigment; emerald green; ultramarine blue; and for the yellow a mixture of zinc white and an organic yellow lake pigment, possibly Hansa yellow.

In *Lemons and Napkin Ring* (1928), Braque contrasted paint texture and consistency between the brown pitcher and the brown table. He may have achieved the matte, opaque, and stiff qualities of the paint for the pitcher by blotting excess oil from the paint. By contrast, to create the smooth, translucent, and slightly glossy effect of the brown tabletop, Braque thinned the paint with varnish, making it more fluid. The contrast of textures pushes the matte brown pitcher into the foreground of the composition, while the diluted brown table remains in the background.

The palette of *The Washstand* (1944) is similar to that of *The Round Table*, but here the muted colors are mixed with earth pigments. The salmon color in the upper left is a mixture of vermilion and yellow ochre, and the window frame is a thicker application of emerald green, also mixed with an earth pigment.
Reworking and the Artist’s Process

The viewer retraces the same path as the artist, and as it is the path that counts more than the thing, one is more interested by the journey.

– Georges Braque

It is common for artists to make changes to a composition while painting. For Braque, reworking was an intrinsic part of his practice. In addition to reworking discrete portions of a picture, Braque also sometimes painted over compositions completely or reused a canvas.

When visible signs of reworking are not apparent to the naked eye, inconsistencies in surface texture or irregular paint thickness can sometimes indicate areas where an artist has altered the original picture. To see beneath the paint surface, a variety of examination techniques can be used.

Varnish
A final coat of varnish on a painting saturates colors and imparts a uniform, often glossy, surface—a finish traditionally desirable in Western painting. However, in the late nineteenth century, French Impressionist artists such as Degas, Monet, and Cézanne began to abandon the practice of varnishing, preferring a matte finish or wishing to avoid the color shifts that occur as varnish coatings yellow with age. It is well documented that Braque also typically did not varnish his pictures or want them varnished. The importance he placed on juxtapositions of color and texture—the material contrasts at the heart of his work—support this view.

In the twentieth century varnish was often applied as a preservation measure to protect the surface of a painting, including against loss of paint. When the Mildred Lane Kemper Art Museum acquired Still Life with Glass (1930) in 1946, the painting was not varnished. In 1974, it was varnished according to general practices at the time. In 2012, in preparation for this exhibition, the varnish was removed. These images show the varnish removal in process.
Transmitted Light

Transmitted light shined through the front of *Pitcher, Lemons, Fruit Dish* (1928) reveals that Braque at first painted a fruit other than a lemon—possibly a plum or peach—on the plate of fruit, and that the handle of the knife originally rested on the plate before Braque shifted it to the left. Here the photograph of the painting under transmitted light, taken from behind, has been flipped to match the composition as seen from the front.

Braque often began a painting with a preliminary sketch made in pencil, charcoal, or, in the case of a dark ground, chalk. Occasionally he left the sketch partially visible, as in *Still Life with Oysters* (1937), where faint charcoal outlines of the loaf of bread can be seen beneath the form of the bottle.

Some changes known as pentimenti start out hidden beneath the surface but reveal themselves over time as oil paint becomes more transparent. Pentimenti in *The Crystal Vase* (1929) reveal that Braque painted the dark gray background and piping of the tablecloth before adding the glass, suggesting that the glass was not part of his original vision for the composition.

**Natural Light**

Braque often incorporated elements of earlier compositions into finished pictures or left evidence of his changes visible to the naked eye, adding dimension to the finished work and allowing the viewer to witness his painting process.
Typically UV light illuminates surface characteristics, but in the case of *The Crystal Vase* (1929) it reveals groups of circles beneath the upper right portion of the white tablecloth. Under close examination in natural light, corresponding areas of faint green pentimenti can be seen through the white paint. Together these observations suggest that Braque included two or three bunches of grapes as part of the still life before dramatically simplifying the composition by painting them out.

**Infrared Reflectography**

Infrared reflectography (IRR) is an imaging technique using a camera sensitive to light in the infrared range of the electromagnetic spectrum. Many pigments are transparent or semitransparent under infrared light; others either reflect or absorb the light and correspondingly appear white or dark in an infrared image. IRR can be used to detect preliminary drawings or changes made beneath surface paint layers.

X-radiography

X-ray photography, or x-radiography, is an imaging technique where low-voltage x-rays are passed through an artwork onto x-ray sensitive film or plates in order to record relative densities of the material: x-rays pass easily through thinner or less dense areas and appear darker, while thicker or more dense areas of paint appear white. Like IRR, x-radiography can reveal changes that may have occurred at different stages of a painting’s development.
List of Artworks (in chronological order)

All paintings are by Georges Braque. All reproductions appear courtesy of the lenders to the exhibition or their representatives and are copyright © 2013 Artists Rights Society (ARS), New York / ADAGP, Paris.

Lemons and Napkin Ring, 1928
Oil and graphite on canvas, 15 3/4 x 47 1/4" (40.5 x 120 cm)
Acquired 1931, The Phillips Collection, Washington, DC
pages 3, 4

Pitcher, Lemons, Fruit Dish, 1928
Oil on canvas, 15 15/16 x 47 5/8" (40.5 x 121.5 cm)
Museum Ludwig, Cologne
page 6

The Crystal Vase, 1929
Oil on canvas, 16 1/4 x 47 1/2" (41.2 x 120.5 cm)
The Cleveland Museum of Art,
Gift of Alexandre P. Rosenberg, 1975.82
pages 6, 7

The Round Table, 1929
Oil, sand, and charcoal on canvas, 57 3/8 x 44 3/4" (145.7 x 113.7 cm)
Acquired 1934, The Phillips Collection, Washington, DC
pages 2, 3, 4

Still Life with Glass, 1930
Oil on canvas, 20 3/16 x 25 5/8" (51.3 x 66.1 cm)
Mildred Lane Kemper Art Museum, Washington University in St. Louis, University purchase, Kende Sale Fund, 1946
page 5

Still Life with a Fruit Dish, 1936
Oil on canvas, 23 3/4 x 32" (60.3 x 81.3 cm)
Philadelphia Museum of Art:
The Samuel S. White 3rd and Vera White Collection, 1967
page 6

Still Life with Oysters, 1937
Oil on canvas, 21 1/8 x 36 3/4" (53.7 x 93.3 cm)
Mildred Lane Kemper Art Museum, Washington University in St. Louis, Gift of Mrs. Richard K. Weil, 1960
page 6

Still Life with Pink Fish, 1937
Oil on canvas, 17 x 24" (43.2 x 61 cm)
Indianapolis Museum of Art,
Bequest of Mrs. James W. Fesler, 61.39
page 4

Baluster and Skull (recto), 1938
Still Life with Fruit Dish (verso), c. 1932–33
Oil on canvas, 17 3/4 x 21 5/8" (45 x 55 cm)
Private collection
page 5

Still Life with Palette, 1943
Oil on canvas, 23 5/8 x 31 7/8" (60 x 81 cm)
Saint Louis Art Museum,
Gift of Joseph Pulitzer, Jr., 136.1956
pages 3, 7

Pewter Pot and Plate of Fruit, 1944
Oil on canvas, 13 3/4 x 25 1/2" (34.9 x 64.8 cm)
Gift of Gertrude Dunn Davis, 1990,
The Phillips Collection, Washington, DC
pages 2, 3

The Washstand, 1944
Oil on canvas, 63 7/8 x 25 1/8" (162.2 x 63.8 cm)
Acquired 1948, The Phillips Collection, Washington, DC
pages 3, 4

Front cover:
Paul Strand (American, 1890–1976)
Braque's Studio, Varengeville-sur-Mer, France, 1957 (negative)
Gelatin silver print, 9 7/16 x 7 5/8" (24 x 19.3 cm) (sheet)
Philadelphia Museum of Art:
Gift of Hazel Strand, 1978
Photo © Aperture Foundation, Inc., Paul Strand Archive

Published in conjunction with the exhibition

GEORGES BRAQUE and the CUBIST
STILL LIFE 1928 / 1945

Coorganized by the Mildred Lane Kemper Art Museum, Washington University in St. Louis, and The Phillips Collection, Washington, DC.

Mildred Lane Kemper Art Museum
January 25 – April 21, 2013

The Phillips Collection
June 8 – September 1, 2013

The exhibition is supported by an indemnity from the Federal Council on the Arts and the Humanities.

Further generous support was provided at the Mildred Lane Kemper Art Museum by James M. Kemper, Jr.; the David Woods Kemper Memorial Foundation; the William T. Kemper Foundation; John and Anabeth Weil; Art Mentor Foundation Lucerne; the National Endowment for the Arts; the Hortense Lewin Art Fund; the Missouri Arts Council, a state agency; the Regional Arts Commission; and members of the Mildred Lane Kemper Art Museum.

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