

Pollock Matters

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Fingerprinting Jackson Pollock?

Peter Paul Biro

Discovery consists of seeing what everyone has seen and thinking what nobody has thought. —Albert Szent-Györgyi¹

The newly discovered poured abstractions in Alex Matter's possession have, for obvious reasons, been subject to extensive scrutiny. With the question of their authorship remaining unresolved, not only have the mainstays of art historical investigation for decades—formal and material analyses—been brought to bear, but even computer algorithms have also been employed to determine whether some of the Matter pieces may be authenticated. Close visual inspection of the Matter pieces has also yielded another piece of material evidence: a fingerprint. This discovery has invited yet another mode of analysis into the fray: forensic.

Technically speaking, fingerprints are representations of the papillary ridges of the distal phalanges of the fingers. In the early twentieth century, mathematical analyses predicted the possible existence of sixty-four billion fingerprint patterns, considerably more than the present human population of the planet. The individuality of a fingerprint is not determined by its general shape or pattern, but by the configuration of its ridge characteristics—the combination of a number of characteristics in a given finger impression being specific to a particular print.

To clarify matters further, fingerprints can be subdivided into latent fingerprints, stamped impressions, and plastic impressions. A finger may leave a *latent* print due to the presence of fatty substances produced by the sebaceous glands in the skin: the kinds of prints found on objects such as drinking glasses, windowpanes, etc., when touched with an otherwise clean finger. A latent print will not survive for long. It is called “latent” or “invisible” because it requires development with black powder or iodine fuming to make it visible. A *stamped* impression leaves a mark with whatever material contamination may be present on the finger (e.g., ink, paint, etc.). An inked finger will leave a stamped impression. Depending on the substance deposited, the longevity of the fingerprint is contingent on the longevity of that substance. If that substance is oil paint, the print may, if conditions permit, be preserved indefinitely. When the finger is impressed into soft material such as partially dried paint,

putty, wax, or a similarly pliable substance, it leaves a *plastic* impression, in other words, it can be seen in relief. The longevity of the impression again depends entirely on the substance into which it was deposited in combination with other environmental factors. Under the right conditions, oil paint can also preserve a plastic impression indefinitely.

Since no two individuals ever share the same fingerprints,³ law enforcement has reliably availed itself of this form of evidence from the beginning of the twentieth century onward. But it was employed in the successful attribution of a painting only some hundred years later.³ This is all the more surprising given that the presence of human contact evidence is far more frequently found on works of art than is generally acknowledged, and, regrettably, many present-day conservators and restorers, failing to recognize its direct relevance to art historical study, are still washing off forensic evidence from paintings as if it were some kind of imperfection. In the case of J. M. W. Turner, for example, a painter who modeled pigment with his fingertips, over a thousand examples of finger and palm prints are still visible on his paintings, sketches, and watercolors.⁴

But Turner is no exception. Artists have used their bare hands in the creative process—employing their fingers to evoke a variety of effects—ever since pre-history. The potential for fingerprints to be left on the surface of their work, either by accident or by design, is thus hardly negligible. In the Renaissance, for instance, both Raphael and Leonardo relied on their fingertips to stamp fine ridges onto their paintings and create delicate and subtle evocations of shading unattainable with the brush.⁵ Fingerprints, moreover, are not only found on the surface of paintings. If paints, palettes, and assorted paraphernalia have been preserved relatively intact in an artist's studio, they may provide another rich source of forensic evidence. Since access to such implements is usually limited, and since most pigments dry in a relatively short period of time (typically in hours or days), opportunities for a plastic impression to have been left in paint, though numerous, are

nonetheless restricted to select individuals and to a certain span of time. When impressed upon, or made with, such a durable substance, moreover, fingerprint evidence may, as mentioned above, have remarkable longevity. In fact, such evidence has been successfully

Fig. 1. The display case in the Pollock studio, Pollock-Krasner House and Study Center.



recovered from contemporary pieces all the way to Renaissance panels,⁶ and has played an important role in recent attempts to resolve questions of attribution by contributing significant data over and beyond traditional art historical connoisseurship (The Universal Leonardo Project is a notable example of the application of forensic evidence in art historical investigations during the past few years⁷).

Thus, given that a plastic fingerprint impression was discerned on the front of one of the abstract paintings found in Herbert Matter's package, this discovery might well provide another opportunity to combine art history and forensics. The first step was to determine whether any of Pollock's own fingerprints were available for comparative purposes. As far as is known, Pollock was never officially fingerprinted. But since his studio is preserved at the Pollock-Krasner House and Study Center in East Hampton, New York,⁸ it was feasible to examine its contents for human contact evidence. Perhaps not unexpectedly, numerous fingerprints are still to be found on paint cans, brushes, sticks, turkey basters (which Pollock often used in the creative process), and other assorted implements. Many of the same objects—currently on exhibit at the Center—are also visible in the contemporary photographs taken, and films made, by Hans Namuth of the artist at work (Landau fig. 56 and Cernuschi/Herczynski fig. 5).⁹ In fact, a paint can that appears next to Pollock's foot in a still photograph revealed, upon closer inspection, a clear fingerprint (the same can appears in the foreground of another Namuth photograph¹⁰). In all instances, fingerprints recovered were from surfaces connected to the painting process (e.g., canvases, paint cans, brushes) and consist of paint, a substance directly related to it.

But are these indeed Pollock's fingerprints? This question may not be answerable with absolute certainty. By all accounts, however, Pollock worked alone in his barn, with neither students nor assistants¹¹; and he was a private individual, especially when it came to painting.¹² The very paint cans that appear in Namuth's film and photographs, further, were set aside after Pollock's death in 1956, and the studio was preserved as a museum after Lee Krasner's death in 1984. The same paint cans on which fingerprints were discovered have remained in a display case ever since.¹³ Since there is no documented evidence of anyone handling Pollock's materials while the artist worked, it would have been nearly impossible for another individual to leave fingerprints on his utensils at some later stage—at least not in soft, wet paint. By that time, the pigment would have dried and hardened.

Even if we assume, for the sake of argument, that another individual was responsible for a fingerprint found in Pollock's studio, then ascribing the fingerprint to this "hypothetical" individual

would also require explaining additional fingerprint matches between that individual and other paint cans and brushes, and, one step further, between those cans and brushes to a Pollock painting at the Tate Modern, London. Indeed, some of the fingerprints in Pollock's implements have been connected to *Naked Man with Knife*¹¹ in that collection. When object and location are so closely tied together by purpose,¹⁵ common sense suggests that the logic of "connection" established by forensic evidence nearly precludes the possibility of someone other than Pollock being responsible for these fingerprints.

Against this backdrop, then, does the fingerprint (fig. 2) found on the recto of *Untitled (Horizontal I)* in Matter's collection (Newman fig. 25), a painting in gouache on board that measures 7 1/2 × 10 7/8 inches, match any of the fingerprints found in Pollock's studio? Under magnification, a close inspection of a high-resolution image of the fingerprint on the Matter painting¹⁶ (A) does indeed resemble a stamped impression of another fingerprint found on a paint can at the Study Center (B).¹⁷ The similarities are difficult to discern because the print on the Matter piece reveals a substance in the furrows of the fingerprint. This means that considerable pressure was applied when the print was deposited. The application of pressure, in turn, can distort the impression, especially as our skin and fingertips are soft and flexible. The print on the can, conversely, was deposited with paint on the top of the ridges. This kind of situation is often visually confusing and should therefore be approached with great care. In essence, the same finger may leave two prints with the same characteristics, but with a different (complimentary) topography. The impression on the can, moreover, is not of the highest quality, while that on the Matter Painting is very clear—apart from some minor obstructions, such as tiny splattered paint droplets deposited above it, and some air bubbles forming miniature "craters" visible under magnification. The presence of these obstructions, however, coupled with the print's plastic impression, suggest that the print was deposited not only in paint that had not yet dried, but also while the painting was in progress.

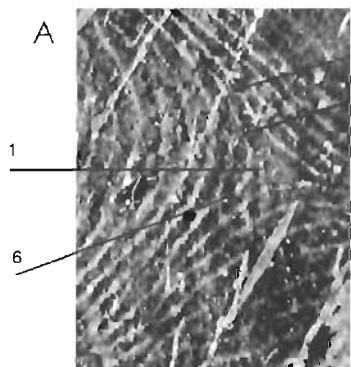
In order to establish the uniqueness of a fingerprint,¹⁸ the comparison process hinges on the general pattern of the flow of ridges. Similar characteristics such as bifurcations, ridges ending, dots, islands etc., need not just appear, they need to appear in the same position relative to one another. When these century-old principles

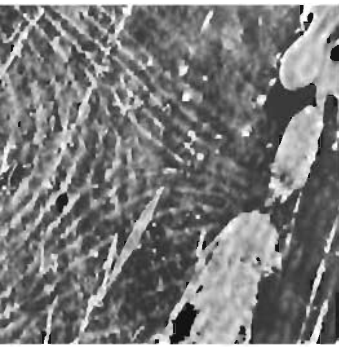


Fig. 2. Fingerprint found on recto of *Untitled (Horizontal I)*

prints are identical to Pollock's, in the meantime, a print scrutinized, a great deal of information can be available for comparison. In such situations arise, of art, it is almost stylistic, and more provenance, to be a historian's tool to arise.

Fig. 3. Comparison of fingerprint found on paint can in the Pollock Krasner Studio





2. Fingerprint found on recto of Untitled (Horizontal I)

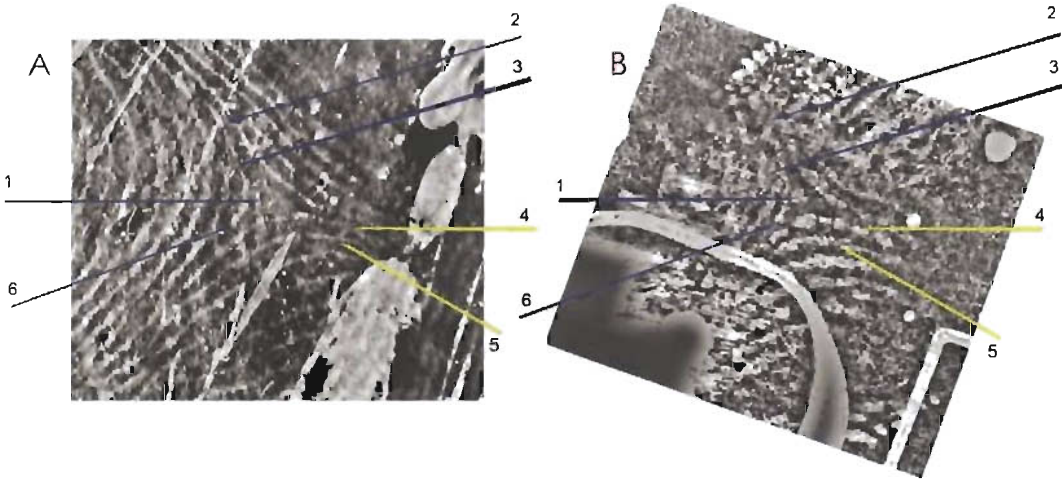
were applied to a side-by-side comparison of the fingerprint from the Matter painting (A) and the one from the paint can found in Pollock's studio (B), six corresponding but no contradictory characteristics could be identified. 1 refers to a dot; 2, 3, 4, and 5 to bifurcations; and 6 to a ridge ending. The same characteristics appear, and in the same relative position, in both examples.¹⁹

Whether the presence of these six corresponding characteristics will be sufficient to establish a consensus among forensic scientists that the two

prints are identical, and, among art historians, that an attribution to Pollock is potentially warranted, remains to be seen. In the meantime, as more of Pollock's paintings and implements are scrutinized, a greater number of higher-quality fingerprints might be available for comparative purposes. More broadly, as similar situations arise, and more fingerprints are discovered on works of art, it is almost certain that forensic evidence will join formal, stylistic, and material analyses, as well as the determination of provenance, to become one more standard instrument in the art historian's tool kit, at least whenever questions of authentication arise.

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Fig. 3. Comparison of fingerprint found on recto of Untitled (Horizontal I) (A) and fingerprint found on paint can in the Pollock Krasner Study Center (B)



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- 1 Szent-Gyorgi (1893-1986) was a Hungarian born, American Nobel Laureate in bio-chemistry.
- 2 This is more fully explained at <http://www.birofneartrestoration.com/forensics11.htm>
- 3 The case is described more fully at www.birofneartrestoration.com/turner.htm
- 4 I have examined over 3000 works by Turner at the Tate Britain over several years and documented over 1000 occurrences of his finger and palm impressions. The consolidation of the many fragmentary impressions can lead to a reconstruction of entire fingertips; this work is in progress.
- 5 Some examples are illustrated in: Royal Microscopical Society, *infocus Magazine*, Issue 1, March 2006. http://www.rms.org.uk/downloads/BIRO_ARTICLE.pdf
- 6 BBC Television as well as Fulcrum Productions, London, has produced two documentaries about a possible Leonardo painting. Fingerprint evidence helped tie the picture to Leonardo's circle.
- 7 Universal Leonardo Project, "The reconstruction of the fingerprint was the result of three years of research and could help attribute disputed paintings or manuscripts, said Luigi Capasso, an anthropologist and director of the Anthropology Research Institute at Chieti University in central Italy." <http://www.universalleonardo.org/news.php?item=608&PHPSESSID=c5b973450bcb389046dd34c62b504e2e>.
- 8 More information about the center is at <http://naples.cc.sunysb.edu/CAS/pkhouse.nsf>.
- 9 An excellent source of image material is *Pollock Painting*, edited with an introduction by Barbara Rose (New York: Agrinde Publications, undated).
- 10 The can is easily identified by its label and the drip marks on it.
- 11 Discussions with Helen Harrison.
- 12 An interesting anecdote is related by James Valliere in an interview with Tony Smith and Paul Feeley in *Such a Desperate Joy*, edited by Helen A. Harrison (New York: Thunders Mouth Press, 2000) 226: "Another thing that I recall is that for years he talked about building a huge mound in front of the house in East Hampton, one that would be quite high and long. When asked why he simply said, in jest, 'to get some Privacy.'"
- 13 Discussion with Helen Harrison.

- 14 Catalogued as TO3327.
- 15 A studio was used entirely for artistic creation by a single individual—Jackson Pollock. Only after his death in 1956 did his wife Lee start to use the barn studio for herself.
- 16 Provided by Richard Newman, Head Scientific Research, Museum of Fine Arts, Boston.
- 17 The paint can labelled Devoe, Mirrolac, Orange was catalogued by Dr. Eastaugh and I as #10 in 2007
- 18 Numerous important works can be cited. A good example is Christophe Champod, Pierre Margot and Milutin Stoilovic, *Fingerprints and Other Ridge Skin Impressions* (New York: International Forensic Science and Investigation Series, CRC Press, 2004).
- 19 I gratefully acknowledge the contribution of Staff Sergeant André Turcotte, a fingerprint examiner with many decades of experience in fingerprint examination. He was Supervisor of the Identification Department, Division C of the RCMP for the province of Québec until his retirement. During the weeks that I worked on this project I frequently consulted with him and, in the final analysis, we both agreed that the two fingerprints are indeed comparable in six characteristics. It has to be noted however that my work was performed based on a black and white photograph I was supplied with and that a personal examination of the painting is always desirable. It is my strong suggestion that all of the Matter Paintings undergo a thorough examination for fingerprint evidence.