

Toward a “Theory” for Technical Art History

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For several decades now, art historians, conservators, and conservation scientists have increasingly come to find their meeting point in the field of technical art history. This relatively new yet steadily growing discipline—broadly defined as the technical examination of artworks—grew out of research undertaken at museum laboratories and conservation studios during the latter half of the twentieth century. Using a variety of inorganic and organic analytical methods, as well as a range of imaging techniques, technical art historians aim to reveal information about an art object’s physical and chemical structures. These data in turn offer evidence relating to an artwork’s visual appearance and also any material changes that might have taken place within the object during the course of its history. Often crucial within the context of conservation treatments, such information can also play a significant role in art historical study, as has been demonstrated by a number of interdisciplinary collaborations in recent years.¹

The purpose of this essay, however, is not to emphasize the interdisciplinary nature of technical art history. Indeed, this has been dealt with at length elsewhere.² Instead, it aims to address a less widely discussed yet important aspect of collaborative research, namely, the necessity of common terminology or, more specifically, a shared methodological and theoretical language.³ It is no bold claim to state that, until recently at least, “the theoretical and epistemological frame of reference has rarely been considered” within technical art history.⁴ David Bomford even goes so far as to liken the discipline to only one side of a

substance dualism, stating that: “Technical art history, like human physiology, maps one half—the physical half—of this Cartesian duality, but the aesthetic or philosophical ghost in the machine remains untouched. We can only trace its presence when reason or irrationality, wit or subversion manifest themselves in the material reality of the outward form.”⁵ The emphasis here can be taken to refer to the empirical nature of technical examination or, perhaps more explicitly, the desire for objectivity that is seemingly offered by this type of deductive research approach—the object is one thing, the subject something else entirely.

This long-standing philosophical dichotomy has also been addressed through the writing of Daniel Miller, whose seminal work *Materiality* presents the divide as a kind of “Durkheimian trauma,” within which the (nonhuman) object inhabits one half of a binary whose other half is represented by the (human) subject.⁶ However, to adopt this polarizing stance, described by anthropologist and art historian Christopher Pinney as a process of “purification,” is inherently problematic, as it encourages us to view this binarism in terms of opposing forces.⁷ Such a view in turn carries with it its own epistemological baggage, which since the work of nineteenth-century sociologist Émile Durkheim has entailed a relatively unchallenged hierarchy; one that favors the subject over the object.⁸ Commenting on Durkheim’s legacy, Bruno Latour notes that “to become a social scientist is to realise that the inner properties of objects do not count, that they are mere receptacles for human categories.”⁹

Needless to say, this subject-oriented focus remains deeply entrenched within the human sciences, art history included, which has arguably led to a rather peripheral treatment of the object within theoretical discourse, something that has been noted previously by my co-author for this dual-essay article, Michael Yonan.¹⁰ Taken in this light, one might speculate as to whether Bomford's rejection of the subject is meant to elicit a kind of challenge to this hierarchy. The reasons for this are understandable, as in doing so he not only circumvents the difficulties presented by this traditional dichotomy, but also lends the discipline an added status—by aligning it with the same kind of empirical positivism that underpins much of the natural sciences.

Reasons aside, to isolate the object in this way nevertheless serves to perpetuate the binarism that we would perhaps rather avoid. In other words, if we limit our reading of the artwork simply to its objecthood, we consequently exclude other avenues of intellectual enquiry, be they sociohistorical, philosophical, aesthetic, or otherwise. What we end up with is a kind of taxonomy, which although a necessary stage in technical study, does not necessarily explore the full potential of what the discipline has to offer. Pinney says as much in stating that “any discussion of materiality that starts and ends with the object is doomed to fail. In configuring materiality as object-ness, it accidentally champions one half (objects) of a binary whose other half (subjects) it wishes to attack. Hence it intensifies the work of purification and does not advance the argument.”¹¹ Taking this into account, it thus appears that a more nonbinary theoretical approach could be of interest when it comes to encouraging further interdisciplinary collaboration—a leveling of the playing field, if you will.

In recent years, there has been increased interest in theorization of the object within philosophical discourse. Examples include the writing of philosophers and theorists such as Latour, Alfred Gell, and Graham Harman.¹² Within the fields of archaeology, social anthropology, and material culture studies, the influence of this “material turn” has also been demonstrated through the work of scholars such as Christopher Tilley, Tim Ingold, and Carl Knappett, as well as the aforementioned work by Miller.¹³ While representing different

disciplines, these authors are nevertheless united through their shared use of the term *materiality*, which is meant to facilitate an object-oriented point of entry into their various areas of research.

Materiality as a theoretical term or concept has also found increased currency among art historians, most notably through the scholarship of Michael Yonan, James Elkins, and Ann-Sophie Lehmann, to name but a few.¹⁴ With regards to technical art history specifically, a comprehensive overview of art theory as it applies to technical study can be found through the doctoral research of Elisabeth Reissner, who uses the paintings of Paul Cézanne in order to demonstrate the applicability of theory within the discipline.¹⁵ While far from exhaustive, this expanding body of literature goes to show that there is growing interest within art history to make space for the artwork as object, as opposed to viewing it as a mere “receptacle” for human meaning in the form of subject matter or represented motifs.

That is not to say that this theoretical undertaking is without its own inherent difficulties, one being the lack of consensus when it comes to defining what is meant by the materiality of an artwork or artefact. While authors such as Ingold and Tilley take materiality to mean the material constituents of objects, its use within art history has sometimes been associated with “material culture” and by extension the “decorative” or “minor” arts.¹⁶ Similarly, there is notable confusion associated with the term “material” through its relationship with historical materialism or a “Marxist-inspired” history of art, which concerns itself with the “economic and therefore material conditions from which art is produced.”¹⁷ Yonan notes how the term “material” evokes for some, if not many, art historians this scholarly perspective and “not necessarily the physical nature of things, for which they would employ the term “medium.”¹⁸ This unclear association between the “material” and “materialism” in art history is problematic, as the latter “may seem to characterise the art object as a commodity,” when in fact the study of an object's materiality can also be used to answer questions that extend outside the spheres of commerce and economy, such as the aesthetic or ideological significance of specific materials or techniques.¹⁹

Another notable difficulty related to this discussion on terminology is the association of the term “material” with “material agency,” or the notion that materials as materials can affect the viewer, and also that they do so irrespective of the author of the work.²⁰ It is this understanding of material agency that lies at the center of Elkins’s book *What Painting Is*.²¹ As noted by Reissner, for Elkins the “significance of paint lies in its effect as a material phenomenon,” and through directing his focus on material agency, he resists “any notion that materials are chosen and manipulated by an artist with a sense of how they will contribute to a work’s final aesthetic or pictorial meaning.”²² In other words, Elkins’s understanding of the material within the context of material agency effectively removes art objects from the sociohistorical conditions within which they were produced.

While these discrepancies in language highlight the need for transparency and concise definitions on the part of scholars—particularly when it comes to their chosen methodologies or theoretical language—it also raises the question as to whether it should be the role of theory to define precisely what is “material” about an art object. After all, conservators, conservation scientists, and technical art historians have for several decades now been utilizing detailed vocabulary that is ideally suited for the task of describing the material structures of artworks, even down to the nanoscale level—what Ingold and Tilley would in turn refer to as the “brute materiality” of objects.²³ In this sense, the contribution of technical art history can in many ways be seen as an answer to the problems put forward by Elkins in his discussion on some of the limits of materiality in art history, namely, the “fear of materiality,” the “slowness of the studio,” and the “limits of phenomenological detail.”²⁴ The same observation was also made by Yonan in the preceding essay, through the suggestion that the material-based perspectives offered by technical art history can act as a buffer of sorts, encouraging researchers to engage with the art object on more than a purely ideological or theoretical basis—hence bringing the interpreter back to the object of study.

If we were to disregard the more descriptive function of theoretical terms such as materiality, one might find that its most useful feature in fact lies partly in its own vagueness. I say

this because if we wish to adopt theoretical terms and concepts with the specific aim of facilitating object-based research, surely it would fall within our interests to use language that allows for the complexity of objects as tangible entities. In other words, theoretical frameworks that in effect encourage a *standardized way of seeing*—similar to semiotics or Panofskian iconology—can arguably be viewed as somewhat reductionist when it comes to examining the actual material stuff of artworks, as in many ways this kind of approach presupposes a set narrative of what an object *is* and, through extension, *why* it should be of interest to scholars.²⁵

The fact that artworks and artefacts are materially complex will come as no revelation to conservators and researchers interested in the artwork as object. Not only do objects consist of a vast array of materials with their own intrinsic chemical and physical properties, but they are also the result of complex interactions between these various components—both during the process of making and afterward as the object and its materials continue to respond to their changing environment and physical conditions. Therefore, rather than viewing objects or artworks as a set of distinct components that can in turn be isolated for the purpose of neat semantic analyses, would it not be better and more conducive to technical research to consider objects as composite structures?

Of course, if for the sake of historical argument or discussion one wishes to focus on a particular element of facture or certain pigment choices, there will inevitably be reasons for doing so. However, the point here is that such focused discussions should always be considered as part of a greater whole, as opposed to an isolated phenomenon; otherwise one might run the risk of decontextualizing materials not only from the artworks to which they belong and form a composite part, but also their broader sociocultural, historical, and production contexts.

Returning to the role of theory, or rather *possible* role—since I have no desire to put forward either an absolute or conclusive

argument in this instance—could a theoretical concept or framework such as materiality act as a kind of bridge or equalizer when it comes to the relationship between scholar and object, a challenge to the hierarchical binarism or substance dualism described above? In other words, if we allow the terminology and methodologies of conservation science and technical art history to take on the role of material *description*, then the function of theory becomes more to do with the ways in which these data can be *mediated* for the purpose of art historical discussion or analysis.

In many ways the term materiality is not necessarily important in and of itself. Rather, it is made relevant by virtue of its function, specifically through what it facilitates, a more central or non-peripheral role for the object within the context of research. This in turn encourages us to re-evaluate the role or position of the subject or human scholar relative to the nonhuman object. Thus, theory becomes a point of entry, a viewpoint of sorts that has a leveling effect. The object is allowed to speak for itself, as opposed to conforming to a subject-oriented narrative. Equally, to adopt such a viewpoint could provide a means of liberating artworks from the limiting state of objecthood or the “physical half” of Cartesianism by opening up their interpretation to more semantic, abstract, or philosophically informed discussions.

In some ways, one might argue that in its most ideal form technical art history already fulfils much of the role and function seemingly espoused by materiality, with the main distinction perhaps being the different academic circles in which these terms and methodological frameworks are most frequently evoked. However, as will no doubt be familiar to both conservators and researchers who use technical analysis as a method of inquiry, too often are our contributions limited to either an appendix or technical entry at the back of a publication, or otherwise remain inaccessible in the form of an unpublished conservation report. I myself have frequently experienced this during my years of study and research.

That is not to say that all technical research falls victim to this kind of hierarchy, far from it, as demonstrated by a number of praiseworthy

examples noted by Maryan Ainsworth in her discussion on the history and development of interdisciplinary collaboration.²⁶ Speaking more broadly, however, and specifically in relation to the position of technical art history versus more traditional art historical theories and methodologies, the material perspectives offered by conservators and conservation scientists remain peripheral, to say the very least. The reasons for such entrenched hierarchies are much too complex and institutionally oriented for me to list here, although it serves to say that both museum organizations and academic curricula would arguably benefit from a more integrated and materially informed approach to the study and display of art objects.²⁷

Bringing this discussion back to the current topic, the issue of language, albeit seemingly banal, can and should be viewed as a natural starting point when it comes to implementing interdisciplinary methodologies and theoretical frameworks. Consider how ambiguous terms such as *materiality* appear when evoked by art historians, often assuming both a descriptive and mediating function at the same time, while in some instances even failing to reference what a conservator or technical art historian might typically associate as “material qualities.” It seems to me counterproductive for scholars from different disciplines to be using the same terminology to refer to different things, or in this case the reverse: using different terminologies and descriptive language to discuss and analyze the same thing (that is, the significance of an artwork’s material composition).

I sometimes wonder whether the preference among art historians for conceptual terms like materiality, together with all of its added theoretical ambiguity, is simply a means or tool for justification, just another way of overcoming the traditional subject-object dichotomy by approaching the topic using more abstract or pseudo-philosophical language. One could argue that such a stance would not seem out of place in a field that is already apparently overrun with decontextualized inductive reasoning and poststructuralist ideas.

The issue, I think, comes down to the ways in which art history is taught at universities, and also how research projects are structured and

realized. Rather than viewing technical study as a kind of addendum to an established art historical inquiry, it is important to integrate these material perspectives at the very beginning of a research collaboration. This will include organization around time frames and schedules (conservators are notoriously pressed for time when it comes to their already-busy treatment schedules), as well as questions relating to funding and resources (technical examinations are often costly and time-consuming ventures). More specific to the present discussion, an ideal interdisciplinary collaboration requires a shared set of terms and a common methodological framework, one that acknowledges material study as a valid and worthy perspective within a broader art historical setting.

Ultimately, my own opinion is that both disciplines in their pursuit of further collaboration would benefit not only from merging their various empirical methodologies—something that is already taking place (see, for example, Yonan’s description of the technical study of an eighteenth-century desk and *étagère*)—but also the epistemological frameworks that they use when approaching a particular research question. What can the methods and theories of each individual discipline tell us about the empirical knowledge gained from the other side? Can these two viewpoints be merged to form a more integrated mode of inquiry, for example, in the form of shared descriptive or mediating terminology? These questions in turn echo some of the discussions put forward by the archaeologist Rosemary Joyce in her book on the Uluu pottery of eastern Honduras.²⁸ Commenting on the role of narrative in archaeological research and writing, Joyce states:

My own view of what narrative does for us is that it requires the writer to be responsible for his or her interpretations by putting those words in her or his own mouth. A narrative doesn’t allow for the kind of passive-voice proclamations in which archaeology routinely indulges, in which archaeologically created data “indicate”, “suggest”, or otherwise appear to do the talking for us. So, in a narrative, my voice is clearly present and my conclusions have to be acknowledged to be mine.²⁹

This statement, I feel, is relevant to both sides of the discussion presented here. On the one hand, technical art history and the empirical sciences need to be aware of the “passive-voice proclamations” that can come about through an excessively object-centric research approach; one in which “objective” data are translated into broader human or contextual meaning. Similarly, art historians and other humanities scholars would undoubtedly benefit from the practice of checking their own presence within the texts and conclusions they write in relation to their research objects, particularly in those instances where the boundary between subjective interpretation and recorded fact begins to wear thin. In both cases, the issue is one of balance and cross-disciplinary dialogue, the constant shifting or renegotiation of the relationship between the art object and its temporally distant past. What can be said about the time, place, and maker behind a remnant artwork or artefact? What is the position or role of the researcher in relation to the interpretations that are being made through their scholarly engagement with the material object?

These are questions and challenges that continue to face our field in its pursuit of interdisciplinary collaboration. While there have been notable gains in this direction—for example, in the form of more international graduate programs focusing specifically on technical art history—there remain certain challenges and frictions between our various specialisms when it comes to fostering further collaboration. Although the growing body of research within the field of technical art history serves to demonstrate the value of consulting differing scholarly perspectives, there is still a lack of consensus when it comes to the theoretical and methodological language we use to bridge these different viewpoints. For example, what terms or concepts could prove themselves useful in the task of describing the process of translating material data into the more interpretive paradigms of art historical meta-discussion? The broader question, of course, being whether we even wish to adopt a

standardized terminology for this undertaking, or if it would perhaps be more beneficial to allow the object itself to establish those parameters through molding our inquiries based on the revelations of technical findings.

I pose these questions very much with the intent of inviting open discussion and debate on this topic. Clearly there is much work left to be done before we can expect a full integration or shared interdisciplinary framework between these vastly different and sometimes contradictory research fields. However, if recent years have taught us anything, it is that there continues to be an enthusiastic interest toward collaborative scientific research within the arts and humanities. Therefore, I am confident that if we continue to fine-tune our methods and language through these collaborations and shared research interests, these questions will, in effect, answer themselves. As one of my old tutors once said, it is simply a matter of “getting your eye” in there.

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ENDNOTES

¹ For an overview see Maryan Ainsworth, "From Connoisseurship to Technical Art History: The Evolution of the Interdisciplinary Study of Art," *Conservation Perspectives: The Getty Conservation Institute Newsletter* 20 (2005): 4-10; and Joyce Hill Stoner, "Turning Points in Technical Art History in American Art," *American Art* 26, no. 1 (Spring 2012): 2-9.

² See, for example, Erma Hermens, "Technical Art History: The Synergy of Art, Conservation and Science," *Art History and Visual Studies in Europe: Transnational Discourses and National Frameworks*, ed. Matthew Rampley (Leiden: Brill, 2012): 151-65.

³ The importance of shared terminology within an interdisciplinary research context has also been addressed by Anna Bentkowska-Kafel in relation to the field of digital humanities. See Anna Bentkowska-Kafel and Lindsay MacDonald, eds., *Digital Techniques for Documenting and Preserving Cultural Heritage* (Bradford, UK: Arc Humanities, 2017).

⁴ Marco Cardinali, "Technical Art History and the First Conference on the Scientific Analysis of Works of Art (Rome, 1930)," *History of Humanities* 2 (March 2017): 222.

⁵ David Bomford, "Forbes Prize Lecture," *Studies in Conservation* 53 (2008): 203 <This appears to be a reference to a lecture by Edward Waldo Forbes>. Note that the author's reference to Cartesianism here relates to the philosophical and scientific system known as mind-body dualism, developed primarily by the French philosopher and mathematician René Descartes (1596-1650). In this instance, the reference to the "ghost in the machine" is taken from Gilbert Ryle's *The Concept of Mind*, which offers a description and a critique of Descartes's philosophical system. See Descartes, "Meditations on First Philosophy (1641)," *The Philosophical Writings of René Descartes*, vol. 2, trans. John Cottingham, Robert Stoothoff, and Dugald Murdoch (Cambridge: Cambridge University Press, 1984); and Gilbert Ryle, *The Concept of Mind* (London: Hutchinson's University Library, 1949).

⁶ This discussion on Durkheim is presented in Christopher Pinney's essay in Miller's anthology: "Things Happen: Or, From Which Moment Does That Object Come?," *Materiality*, ed. Daniel Miller (Durham, NC: Duke University Press, 2005): 256-72.

⁷ Pinney, "Things Happen," 257.

⁸ This observation was first made by Bruno Latour in *We Have Never Been Modern*, trans. C. Porter (London: Prentice Hall, 1993), 52.

⁹ Latour, *We Have Never Been Modern*, 52.

¹⁰ Michael Yonan, "Materiality as Periphery," *Visual Resources* 35, nos. 3-4 (2019): 200-216. <https://www.tandfonline.com/doi/abs/10.1080/01973762.2018.1475887?journalCode=gvir20>

¹¹ Pinney, "Things Happen," 257.

¹² See Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network Theory* (Oxford: Oxford University Press, 2005); Alfred Gell, *Art and Agency: An Anthropological Theory* (Oxford: Clarendon, 1998); and Graham Harman, *Object-Oriented Ontology: A New Theory of Everything* (London: Pelican, 2018). While Latour's actor-network theory can be taken as dealing more explicitly with the relationships between human actors and non-human actants, Harman's work focuses on the agency of objects beyond the realm of human perception.

¹³ See, for example, Christopher Tilley, "Materiality in Materials," *Archaeological Dialogues* 14, no. 1 (June 2007): 16-20; Tim Ingold, *Making: Anthropology, Archaeology, Art and Architecture*

(London: Routledge, 2013); Ingold, "Materials against Materiality," *Archaeological Dialogues* 14, no. 1 (June 2007): 1-16; Carl Knappett, "Materials with Materiality," *Archaeological Dialogues* 14, no. 1 (June 2007): 20-23; Knappett, "Materiality in Archaeological Theory," *Encyclopedia of Global Archaeology*, ed. Claire Smith (New York: Springer, 2014), 4700-4708.

¹⁴ See, for example, Michael Yonan, "Towards a Fusion of Art History and Material Culture Studies," *West 86th: A Journal of Decorative Arts, Design History, and Material Culture* 18, no. 2 (2011): 232-48; James Elkins, "On Some Limits of Materiality in Art History," *Das Magazin des Instituts für theorie* (Zürich) 12 (2008): 25-30; and Ann-Sophie Lehmann, "The Matter of the Medium: Some Tools for an Art Theoretical Interpretation of Materials," *The Matter of Art: Materials, Technologies, Meanings, 1200-1700*, ed. Christy Anderson, Anne Dunlop, and Pamela H. Smith (Manchester: Manchester University Press, 2015), 21-41.

¹⁵ Elisabeth Reissner, "Technical Study within Art Historical Scholarship: 'Meaning in Making' with Particular Reference to the Works of Paul Cézanne" (PhD thesis, Courtauld Institute of Art, 2015).

¹⁶ Yonan, "Towards a Fusion," 234. For references to Ingold and Tilley see note 13 above.

¹⁷ Yonan, "Towards a Fusion," 234.

¹⁸ Yonan, "Towards a Fusion," 234.

¹⁹ Yonan, "Towards a Fusion," 236.

²⁰ For a discussion of material agency in relation to technical study, see section 2.4.3, "Sensory-aesthetic Experience: Georges Didi-Huberman and James Elkins," in Reissner, "Technical Study within Art Historical Scholarship," 94-99.

²¹ James Elkins, *What Painting Is: How to Think About Oil Painting Using the Language of Alchemy* (London: Routledge, 1999).

²² Reissner, "Technical Study within Art Historical Scholarship," 96.

²³ Ingold, *Making*, 27-28. Here the term "brute materiality" is cited from Tilley, "Materiality in Materials," 17.

²⁴ Elkins, "On Some Limits of Materiality," 2. In his article, Elkins notes how the vocabulary of phenomenology (as described by Maurice Merleau-Ponty) is insufficient when it comes to describing individual artworks. Similarly, the "fear of materiality" on the part of art historians relates to the difficulties involved with marrying together material data and broader historical interpretation or critical thinking. This in turn feeds into the final problem—"the slowness of the studio"—which relates to the challenge of translating detailed painterly processes into more broadly based or fast-paced conclusions that offer art historical insight or relevance.

²⁵ For references on Erwin Panofsky's iconology, see his *Studies in Iconology: Humanistic Themes in the Art of the Renaissance* (New York: Oxford University Press, 1939).

²⁶ Ainsworth, "From Connoisseurship to Technical Art History," 4-10.

²⁷ These issues have been raised in part by Heather Lechtman, Richard Stone, and Katharina Walch-von Miller in dialogue with Jeffrey Levin and Brian Considine. See Lechtman, Stone, and Walch-von Miller, "A Matter of Teamwork: A Discussion about Technical Studies and Art History," *Conservation Perspectives: The Getty Conservation Institute Newsletter* 20, no. 1 (2005): 11-16.

²⁸ Rosemary Joyce, *Painted Pottery of Honduras: Object Lives and Itineraries* (Leiden: Brill, 2017).

²⁹ Joyce, *Painted Pottery of Honduras*, 6.