Digital Art History as the Social History of Art: Towards the Disciplinary Relevance of Digital Methods

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Digital Art History as the Social History of Art: Towards the Disciplinary Relevance of Digital Methods

Paul B. Jaskot

Can we have a critical art history using digital methods? To answer this question, we need to ask what are the critical questions in art history that demand and are best suited to specific digital methods? This article argues that asking a critical question involves taking up the long art-historical tradition of the social history of art. Social art history is not satisfied with a social context for art, but rather reverses this equation by arguing that an analysis of art, artist, and audience must tell us something structurally about society. It is these kinds of questions that critically engage in broader art-historical debates. When questions such as these rely on large bodies of evidence – which they often do if “society” is their focus of study – then the scale of the project is, in today’s context, best suited for digital methods. In sum, digital art history lets us address the tradition of the social history of art in new ways.

The following essay seeks to advance a nuanced triangulation between our art-historical topics of study, our methodological debates, and computational analysis. In specific terms, exploring alternative subjects of art history as well as the particular analytical methods of social art history opens up the debates in the discipline to a more critical intervention with digital methods.

Keywords: Social Art History; Digital Humanities; Methodology; Arnold Hauser (1892–1978); Alan Turing (1912–1954); German Architecture

In 1988, Griselda Pollock published an important critical intervention in the development of feminist art history: the volume entitled Vision and Difference: Femininity, Feminism, and the Histories of Art. Among other contributions to the debate that she offered in these essays, Pollock in particular complicated the mainstream feminist practice of adding women as biographical subjects to art history as a mere supplement to standard accounts. She especially emphasized this point in the crucial essay “Vision, Voice, and Power: Feminist Art Histories and Marxism,” in which she argued it was not enough to add a feminine perspective to art history. Rather, Pollock argued that feminist art history must embrace a more institutionally critical perspective of Marxist social historical methods; and that, in turn, Marxist art history must itself be forever altered through the political and methodological challenges of a feminist critique. Taking as her topic women in art history, she showed through selected case studies the powerful ways in which a focus on the innovative methodological challenges of feminism could
change established practices like the social history of art in order to create new critical subjects and approaches in art history.

At the time, art history – with its ties to elite cultural subjects and, of course, a direct link to market value – was in need of critical tools if it was going to challenge dominant cultural paradigms in any meaningful way within the discipline but also within cultural networks at large. Indeed, I believe that it is still in need of such a perspective and practice. In parallel terms to Pollock’s intervention, we can say that detractors of the digital humanities – especially from within its own practitioners – have long made the important point that, among other faults, the field needs to overcome its technical roots in the digital tools produced by and for neoliberal corporate culture and their service in transforming the modern university into a training ground for capitalist productivity. Digital humanities and art history are both seemingly tethered by their umbilical cords of gold, to paraphrase art critic Clement Greenberg (1909–1994). Given these conditions of our practice, can we have a critical art history using digital methods? As with Pollock, such a question needs to be grounded in both current disciplinary practices but also go beyond them in terms of both methodology and our subjects of study if it is going to be worthy of the term “critical.” In this sense, we thus need to ask what are the critical questions in art history that demand and are best suited to specific digital methods? Put in these terms, digital art history is not primarily about new techniques, but rather about defining what are critical art-historical questions in the first place.

Asking a critical question involves once again taking up the long art-historical tradition of the social history of art, just as Pollock did in the 1980s with her feminist intervention. Social art history, rooted originally in the importance of class for a Marxist analysis, has also in the past few decades expanded on important questions including those of gender, ethnicity, and sexuality (among others) as well as pointing the art-historical gaze towards vernacular or overlooked parts of the field that have been rendered invisible by the triumphal march of canonical art history. Social art history at its most critical is not satisfied with a social context for art, but rather reverses this equation by arguing that an analysis of art, artist, and audience must tell us something structurally about society. It is these kinds of questions that engage in broader art-historical debates. When questions such as these rely on large bodies of evidence – which they often do if “society” is their focus of study – then the scale of the project is, in today’s context, best suited for digital methods just as they were ripe for feminist revisions in Pollock’s era. In sum, as with feminism, digital art history lets us address the tradition of the social history of art in new ways.

Digital art history can be reconceptualized in these terms as another in a long line of debates about what constitutes the most critical subject and focus of art history as a discipline. Of course, from the time of the salvos of Erwin Panofsky (1892–1968) against Heinrich Wölfflin (1864–1945) onwards, art history, like any discipline, has always had a contested center in which subjects, arguments, and methodologies vie for authority. In spite of the dream of pluralism (a dream still very much rhetorically alive in both the digital and non-digital corners of the field), art history has institutional and market restrictions that make it structurally impossible for every subject, every position, and every methodology to be present and accounted for equally, even if such
positivism were a goal. Acknowledging that art history is as much a venue of conflict and debate as any other institutional part of modern society does not limit our power but rather embraces the fact that we, too, have something important to fight for – and against – in our intellectual and professional worlds.

In many ways, this striving for relevance draws on the call for a more self-critical engagement with digital methods articulated by the important distinction between digital and digitized art history made by Johanna Drucker in her essay in this journal entitled “Is There a ‘Digital’ Art History?” Drucker drew a distinction between the terms to make clear how art history was already greatly affected by digital resources and tools, but that it was still in need, crucially, of the analytic use of digital methods. She pointed to initial and promising steps in corpus analysis, visual pattern recognition, image processing, and 3D architectural modeling, among other computational topics. And yet, however important this fundamental perspective has been, Drucker, in this essay, implicitly naturalizes both the subject of art history and its methods: the former centers on the meaning of individual objects and the latter are the multiple methods practiced in art history since the advent of poststructuralism. That is to say, for Drucker, digital art history offers a radical new way of extending these already given subjects and methods. Such an approach, however, does not in itself demand a significant reevaluation of what the subject of art history may be nor which methods may or may not be suitable for computational analysis. Tellingly, for example, Panofsky’s study of Jan van Eyck’s Arnolfini Portrait (1434, London, National Gallery) and his iconographical approach are just as important for the digital claims promoted in this essay as they are for the accepted understanding of art history then and now. The following essay acknowledges Drucker’s important contribution but also seeks to advance a nuanced triangulation between our topics of study, our methodological debates, and computational analysis. In specific terms, exploring alternative subjects of art history as well as the particular analytical methods of social art history opens up the debates in the discipline to a more critical intervention with digital methods.

The Scale of Art-Historical Questions

As Ben Zweig has reminded us in the relatively new publication of the International Journal for Digital Art History, the digital humanities have been a part of art history for decades, especially in the form of the creation of electronic databases as well as explorations of image reproduction and recognition. So, too, critics of the digital humanities are not new, as in Mike Pepi’s article “Is a Museum a Database?” In this contribution, Pepi’s point (echoed by Drucker, Todd Presner, and others) warrants repeating: art-historical questions, digital or analog, may be easily used by a rationalized and privatized technocratic community of power. Hence, with the long history of digital art history comes a neoliberal critique that haunts our digital humanities scholarship.

In spite of such warnings, the field of digital art history has been pushed forward in the last decade through the promotion of new collaborative projects that engage with crystallizing areas of digital humanities as well as specific subfields within art history.
Some of these have been large-scale tool-making ventures or based on the development of new and sophisticated computational techniques. Yet, while computational development work is ongoing and essential, for the broad swath of the art-historical community, we can see four other methodological areas as primary:

1. Digital storytelling, including new digital forms of narrative as well as dynamic public-facing presentation of artworks, art-historical sources, and analysis;
2. Text-based approaches such as corpus linguistics that allow for investigation of word collocation, semantic tagging, and other modes of textual analysis;
3. Network analysis, which often involves platforms like Gephi that not only connect people or things from a database but also can weigh the quality or closeness of the connection for analytic purposes; and
4. Spatial analysis, mostly through digital mapping visualization and 3D modelling.

I believe that when these methods are combined with a rich and complex concept of scale, they have produced some of the best digital art history work to date.

Of these four areas, digital storytelling and text mining have been important but less central to the larger landscape of digital art history. There is little doubt that the most productive questions raised up to now are ones that have embraced methods of social network analysis and spatial analysis. These methods – not least perhaps because of their emphasis on visualization – grapple with specific historical issues relying on large datasets as well as the potential and problems of scale resulting from this evidence. The complexity of the evidence and analysis in visual and scalar terms has highlighted the projects that have shown the most critical potential. Recognizing, analyzing, and theorizing that complexity has distinguished in many ways the important foundational generation of major art-historical digital projects from more recent progeny. In all cases, it is the scale and complexity of the spatial and network evidence that makes the digital methods the appropriate art-historical choice. We do this work not merely because we can – we do it because it is analytically the most rigorous.

I would mention a caveat here: as we move toward significant analytical work in digital art history, we should not lose sight of the ongoing need for foundational endeavors, especially the building up of complex repositories that allow for dynamic searching and multifunctional exploration. Concentration of complex digital resources in certain historical and geographic areas means a dispersion of other questions to the periphery or, worse, the darkness beyond art-historical analysis. Amy Earhart has discussed the need in this context to see certain kinds of digital archive construction as crucial intellectual (and critical) work. Her call for building more dynamically accessible digital repositories that focus on unheralded historical agents such as nineteenth-century African Americans should be made central to our advocacy for digital art history. We need the critical intellectual work of foundation building as much as we need exclusively historiographically driven projects. Notably, foundation building is also a crucial aspect of any broader notion of a social art history.
This caveat raises the broader issue with which I started: directions in digital art history are not merely expanding the field but also are participating in the more common experience of struggling over the nature of that field. In particular, it should be clear that digital art-historical questions with scalable evidence are the ones of most interest for network analysis, spatial visualization, text mining, and digital storytelling. In my own subfield of modern German architecture, there are some obvious examples of this. Much of the work in the field continues to be dominated by monographic studies of individual architects, particularly schools like the Bauhaus, or a select number of buildings in a given geography, usually at the resolution of the city (above all, Berlin). But two other related directions in the last decade or so have captured the imagination of many of us in this area and are leading to innovative new work: questions around the German cultural diaspora and questions concerning German imperialism. Systematic analyses of the spread of architects and practices in a diaspora as well as the political use of architecture in imperialistic regimes require not only profoundly complex spatial analyses to capture accurately the dispersion but also deep layering of evidence and analysis to say something significant about the cultural nature of imperialism. That is, for either direction, it is a question of the scale and complexity of the evidence that is paramount methodologically.

We can see both of these, for example, in the important work of Itohan Osayimwese. To point to one compelling example, in her 2013 article “Prolegomenon to an Alternative Genealogy of German Modernism: German Architects’ Encounters with World Cultures c. 1900,” she argued “that the increasing geographic mobility of German architects and their apparent compulsion for ethnographic knowledge during this period was part of a well-established constellation of ideas and practices influenced by imperialist ideology and global capital.”14 Such a challenging thesis requires an impressive evidentiary base. In general, this article highlights the web of intellectual networks between ethnographers and architects, including for instance Bruno Taut’s reference to the “Orient” and other places under European colonialism as well as the influences between, for example, Leo Frobenius (1873–1938) as an African ethnologist and Ludwig Mies van der Rohe (1886–1969). Osayimwese thus contextualizes German architecture within a pre-history of overtly racialized thinking, particularly in the network of actors at the intersection of architecture and ethnography working after Semper. As such, she shows key links that highlight a broader field of the negative “dark matter” of ethnography that influenced architects and their formation of modernism.15

Nevertheless, here as in much art-historical literature, we must note that the avant-garde is the foreground and point of the whole text. It is the avant-garde “star” – or, more broadly, the daunting anchor of German modernist architecture that sits as the prime center of our subfield – and that keeps this racialized intellectual network in focus. And yet it is this kind of project that could be significantly extended precisely to decenter the architectural Modernists and re-center the contribution of architectural thought to the formation of modern concepts of race, which in turn intersect with concepts and practices of German imperialism. The social network calls out for a complementary spatialization of the spread and influence of ideas and aesthetics, politics, and
construction. Digital methods complement these questions, as they insist on a more complex and granular social history that makes the avant-garde node in the network merely one of many. This is, after all, a more complete representation of the historical record.

**Digital Art History and the Problem of Mediation**

My point here is that, while Osayimwese is not a digital art historian, there are significant contributions like hers that engage debates in our various subfields that could require scalable evidence and/or digital visualization to enhance, expand upon, and deepen the significance of the argument. The scale of evidence and the methods central to much of social art history are the evidence and methods that complement or call out for digital art history. As in the case of Osayimwese, these are issues that already focus particular debates in our field. Yet if we are to go beyond the case study of a few select architects, such work will also require coordination among more researchers invested in gathering a significantly larger body of evidence that, in turn, will result in greater database complexity. That is to say, social art history at this scale will also necessitate a more collaborative effort (much as the study of class in nineteenth-century French art as well as feminist interventions in the 1970s and 1980s led to a more focused agenda among many scholars). Through collaboration, digital art history has the potential to participate centrally in specific debates within art history rather than serve as yet another (pluralistic) sub-stream.

Still, there is a significant fly in this ointment, a fly that has bedeviled social art history but also digital humanities for some time: more data does not equal more truth. Ernst Gombrich (1909–2001) recognized this in his eviscerating review of *The Social History of Art* by Arnold Hauser (1892–1978) in the 1953 *Art Bulletin.* For Gombrich, the weakness of Hauser’s approach was that, for all the detailed history of class and society he could muster, he could not mediate between the meaning of the object and a specific social structure. More social evidence didn’t make the case any more convincing. Gombrich argued instead that the particularity of the work of art and its psychological relationship to the viewer were the sites of meaning, not a blunt layering of a static concept of class on top of a painting.

Hauser responded in significant ways to Gombrich’s charge in his *Philosophy of Art History* (1958). Here Hauser stressed that he did not see works of art as merely transparent to social structures. Instead, the question for social art history was precisely one of mediation: that is, how social production and cultural forms have a relational history. For Hauser, this assertion helped him to avoid the concept of a transparency between an artwork and social class, which he also criticized as a false positivism. At the same time, it allowed him to argue that artworks and society were essentially and analytically related. Art and society are thus inextricably interdependent but not reducible one to the other. After Hauser, the mediation between social structure and cultural meaning became one of the fundamentally central issues in the social history of art.

This digression into the old men of our discipline points us back to how these significant and, in this case, very longstanding problems in art history are also problems in the digital humanities. Indeed, more data doesn’t equal more truth. So what does a map
of thousands of buildings tell us that an analysis of one work (Figure 1) by Erich Mendelsohn (1887–1953) does not? Digital art history helps us to raise and analyze Hauser’s question of mediation between cultural works and social structures anew. It is not that this map of German architecture is transparent to a political economic structure; nor is it transparent to the rise of individual architectural stars like Mendelsohn. Instead, it gives form to their relationship. The iterative production of spatial patterns – the very essence of GIS as a digital method – suggests analytical historical connections between conditions that exist at a system-wide level and those that occur at the level of the individual building. It points to both ends of that spectrum while not being reducible to one or the other. That is to say, the map gives the connection between the two a form that, in turn, requires further research, digital visualization, and humanistic analysis. The map is not the answer; the map indicates a relationship.

To clarify this point further, it is useful to remember a scholar who has been central to the theory and practice of computational analysis but has remained relatively unheralded in art history: Alan Turing (1912–1954).18 Turing is most famous for his contribution to the breaking of the German Enigma Code during the Second World War, as well as, sadly, for his conviction on homosexuality charges after the war and subsequent apparent suicide. In 1952, the year of his conviction, Turing also wrote one of his most important papers, “The Chemical Basis of Morphogenesis,” published in the Philosophical Transactions of the Royal Society.19 In this essay, Turing’s research centered on how chemicals can act as an intermediary between cells and the higher orders of form,
essentially a question of biological morphology. For example, how do you get from the relative standardization of an egg to the complex symmetry and quite distinct shape of the human body? As Philip Ball in his analysis of Turing states:

Turing posits that among the molecular ingredients of this bundle of cells are components called morphogens (‘shape-formers’), which are somehow responsible for triggering the development of a cell or tissue along a certain pathway ... All one really needs to know about them [these morphogens] is that they diffuse and they react (triggering some development feature). This is why Turing’s model is now known as an example of a reaction-diffusion system.

Such a model is not only an analogy for my interest in digital art history; I believe that it can also serve as a methodological model for thinking about the relational nature of social structures and individual artists or works of art. Just as Turing recast a biological problem as a chemical one, we can recast chemical relationships as historical and spatial ones. Biological patterns on animal skins (like a jaguar, for example) are neither uniform nor chaotic, since they depend on morphogens that are both activators and inhibitors essential to the reaction-diffusion process. Space in time, in this sense, is also just such a historical morphogen. In both the ideological concept of space – the plan – as well as the concept of space as a “neutral” given condition – the physical world – when they are put together in historical time (i.e., the world of human experience) they produce patterns which also range between uniformity and chaos. Digital visualization helps to capture aspects of that very tension between uniformity and chaos. Indeed, Turing’s thesis and methodology have already been used to analyze patterns of crime in human communities as well as spatial pattern formations in the “built” environment of communities of ants. Reaction-diffusion models thus help to explain how the input to a space and the outcome of a space may be both infinitely variable, but also follow certain analyzable patterns. Digital methods work best when they are working morphologically, giving form to relationships that preserve the individual unit (such as a building) in dynamic tension with its context (such as a society or social system of class or gender). Digital methods call upon us as humanists to explain the variables and forces that produce that tension.

To clarify, we might turn briefly to this example of the German construction firm of Dywidag (Figure 2). Then also known as Dyckerhoff & Widmann, the firm was internationally famous by the time of the First World War for its experiments in pressed and reinforced concrete techniques it developed, not only for significant architectural projects (like the Jahrhunderthalle in Breslau – now Wroclaw) but also for vernacular industrial and other humble building types. It is generally assumed in the art-historical literature that architects and construction firms in Germany in the difficult years after the War had little work and were reduced on the whole to planning for a future that would come after the end of revolutionary upheavals and economic instability. And, yet, mapping Dywidag’s production immediately after the war shows the problem with this generalization, for we see that Dywidag significantly diversified its practice during those years, particularly by spreading to South America. This turn to
South America, one that was enabled through growing networks of international capital flow even from crisis-era Germany, resulted in a mini-building boom for Dywidag, especially in the form of famed buildings that include some of South America’s first skyscrapers. The latter, too, was part of a consolidation of finance capital in Buenos Aires and a recognition of the need to compete in architectural as well as economic ways. Such a shift in German architectural thought, combined with local patronage as well as international capital developments after the First World War, has not been part of the canonical architectural historical record. But the digital map insists on this issue – indeed, it privileges it above other considerations, such as the more traditional analysis of the aesthetic significance of individual buildings. It points to a relationship between the messy and complex development of society and the construction of individual buildings; or rather, it gives form to that relationship, a form that must be further explored through archival evidence and art-historical analysis.

**Conclusion**

In a recent pamphlet from the Stanford Literary Lab, Franco Moretti, the *bête noire* of the digital humanities, makes an offhand observation regarding who does or does not get involved in our worlds with digital methods:
[Bourdieu] [as his example] also stands for something less obvious [in digital humanities], and rather perplexing: the near-absence from digital humanities, and from our own work as well, of that other sociological approach that is Marxist criticism … This disjunction – perfectly mutual, as the indifference of Marxist criticism is only shaken by its occasional salvo against digital humanities as an accessory to the corporate attack on the university – is puzzling, considering the vast social horizon which digital archives could open to historical materialism, and the critical depth which the latter could inject into the “programming imagination”. It’s a strange state of affairs; and it’s not clear what, if anything, may eventually change it.²⁴

However, as I have attempted to show, the social history of art is primed very much to change this state of affairs. Indeed, in many areas of digital art history, this supposed “absence” is not an absence at all. Art historians working with large-scale datasets central to an integration of their questions with larger social structures have explicitly taken up this challenge. While not all corners of social art history are explicitly Marxist, nevertheless the critical agenda to see scholarship as an important site of struggle not only of ideas but of what we do as a society seems to be a matter of burning importance. These questions – which in art history so often rest on an effective analysis that mediates between the artistic and the social – are ones that compel us to enter the fray and stake a claim within the center of our discipline. Digital art history helps us to make that claim, plant that flag, and promote the importance of giving form to the deep relationships between works of art, both banal and sophisticated, to the very workings of society itself.

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PAUL JASKOT is professor of art history and the Director of the Wired! Lab for Digital Art History & Visual Culture at Duke University. His work concerns the influence of National Socialist policy on cultural production during and after the Nazi era. His most recent book is The Nazi Perpetrator: Postwar German Art and the Politics of the Right. In addition to his solo activity, Jaskot has also been an active member of the Holocaust Geography Collaborative since 2007. In this capacity, he has frequently collaborated with the historical geographer Anne Kelly Knowles, including their two co-authored chapters in the Geographies of the Holocaust. Currently, they are working on a large-scale analysis of the spaces of forced labor in the ghettos of Nazi occupied Europe. In addition, Jaskot continues to publish on the power of digital mapping methods for art historical analysis, including his 2017 Journal of the Society of Architectural Historians’ article (with Ivo Van der Graaff) “Historical Journals as Digital Sources: Mapping the German Construction Industry, 1914–24.” He was the
President of the College Art Association (2008–2010) and the Andrew W. Mellon Professor at the Center for Advanced Study in the Visual Arts at the National Gallery of Art (Washington DC, 2014–2016).

Notes
3 As argued by, among others, Gregory Sholette, Dark Matter: Art and Politics in the Age of Enterprise Culture (New York: Pluto Press, 2010).
8 The artist Gert Jan Kocken reminds us as well to be mindful of taking tools like GIS as neutral and transparent reflections of rational thought. See Gert Jan Kocken, Depictions of Berlin, 1933–1945 (2010) series, for example, as discussed in Daniel Rosenberg, “Against Infographics,” Art Journal (Winter 2015): 38–57. One might contrast this to the argument by Toscano and Kinkle that capitalism can indeed be grasped through representation: see Alberto Toscano and Jeffrey Kinkle, Cartographies of the Absolute (Alresford: Zero Books, 2015).
9 Certainly, a clear leader in this area is Lev Manovich. See, for example, his 2017 book Instagram and Contemporary Image, published as an open-access PDF at http://manovich.net/content/04-projects/147-instagram-and-contemporary-image/instagram_book_manovich.pdf.
10 Most recently, Angela Dressen has also taken stock of the range of approaches in the field in her essay “Grenzen und Möglichkeiten der digitalen Kunstgeschichte und der Digital Humanities – eine kritische Betrachtung der Methoden,” in Angela Dressen and Lia Markey, eds., Critical Approaches to Digital Art History, special issue of kunsttexte.de 4 (2017), www.kunsttexte.de. While we have somewhat different characterizations of the field, Dressen’s article is an excellent overview of current approaches.
11 For digital storytelling, museums have been leaders in innovation and have contributed most. See, for example, “Object:Photo,” Museum of Modern Art (2014), https://www.moma.org/interactives/objectphoto/#home (accessed 18 February 2018). Storytelling approaches have also made inroads in pedagogic applications as well: see Lisa


15 Osayimwese has expanded her argument on German colonialism and architecture in her book *Colonialism and Modern Architecture in Germany* (Pittsburgh: University of Pittsburgh Press, 2017).


20 Ball, “Forging Patterns,” 3.

21 Ibid., 4–5.

22 Ibid., 8–9.