

Commentary: Art-Historical Questions, Geographic Concepts, and Digital Methods

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Long before digital mapping was even a glimmer in the eye of art history, the discipline had established a deep relationship with geographic concepts and theories. One might say further that, like geography, an essential element of any art-historical problem is spatial thinking, given that the scholarly subject centers on physical objects that exist in particular spaces. From the painter's studio to the modern museum, from the stonemason's workshop to the building in the urban fabric, from the tree in the forest to the wooden figure at the altar, art history is first and foremost the study of the meaning of forms in space. While there are of course other art-historical traditions (like conceptual art) and questions beyond the object, nevertheless a foundational commitment to the importance of the physical object implicitly acknowledges that space matters in art history.

But beyond this general truism, more specific geographic problems have arisen. Some early art historians in the later-nineteenth and early-twentieth centuries, for example, interested themselves in questions of cultural geography such as whether one could identify "German" painting as distinct from "Italian" based not only on an analysis of form but also regional practices.¹ Others have taken on political-geographic concerns, like the investigation of national academies of art and architecture and how the modern state might have used these institutions to exert visual and administrative control over its territory.² And, of course, key geographic concepts such as scale have been just as relevant to art historians whether they have been analyzing buildings in relation to their sites or individual viewers standing in front of a work.³ Social science and humanities distinctions aside, art history and geography have been at least distant cousins for longer than most scholars in either discipline have acknowledged.⁴

Still, no one would argue that the two disciplines are the same and, particularly when thinking of method, each discipline has taken radically different turns in how it approaches its spatialized subjects. The common art-historical practice of iconographic analysis would probably mystify the majority of geographers just as such basic quantitative methods used in geography like descriptive statistics would make most art historians' eyes glaze over. The issue of their mutual interests is thus not an interdisciplinary one in which the methods of one scholarly division are absorbed by another; instead, it is an issue of which questions can be productively approached in new ways by the application of a complementary discipline's methods.⁵ This multidisciplinary approach acknowledges the impossibility of becoming an expert in all disciplines and instead asks which aspects of another area of scholarship may fruitfully engage with one's own. It points to the possibilities of a collaboration that preserves and expands the humanistic inquiry of art history while working with broad expertise in geography. In this sense, we are concerned not with how art history can use geography, but rather which art-historical questions are best suited to specific geographic concepts and modes of analysis. Not all art-historical questions are, after all, geographically interesting, even if almost all art histories begin with artworks in space. Identifying these analytically valuable questions takes us a long way to a more productive multidisciplinary dialogue with geography.

These mutually enlightening questions have become clearer with the advance in digital mapping technologies and their use beyond geography in the digital humanities. Computational methods by their very nature emphasize the scale of the data and their complexity. This has provided a spur to art-historical thought in these directions as well. Suddenly, there are new analytic tools to look at the work of an artist over her or his entire career, just as there are exciting digital methods for attempting to visualize complicated historical use of artworks in space.⁶ While most digital humanities programs are rooted in English or history departments dominated by textual analysis through corpus linguistics and other approaches, the very spatial nature of art history itself is indicated by the interest in our discipline predominantly in computational methods related to space or, at least, visualization of spatial phenomena. 3D modeling, the physical location of artistic and market networks, and above all the use of GIS are leading the way as digital methods for art-historical analysis because these approaches correspond most closely to our established art-historical problems – and they have been the means of raising provocative new ones as well.

In what follows, I would like to explore the productive interrelationship of art-historical questions, geographic concepts, and digital methods. In particular, I would like to focus on three thematic topics on this interrelationship raised in this issue by the contributions of Susan Elizabeth Gagliardi, Joanna Gardner-Huggett, and Edward Triplett, namely: 1) how do we think about and analyze the nature of our spatial evidence; 2) how does spatial analysis help us think about the individual and the systemic; and 3) how do visualizations of spatial problems push us not only to new art-historical questions but also different art-historical subjects? As these questions indicate, digital spatial methods (as opposed to other computational approaches in the digital humanities) are not just about expanding the discipline of art history with yet another approach, one more link in the ever-extending chain of pluralism. Rather, digital spatial methods draw us into the very essence of our discipline by contesting not only its modes of analysis but also the subjects of art history which dominate its core concerns.

Put in these terms, it is not surprising that most digital spatial art-historical projects are grounded in social art history, a sub-discipline that traces its roots back to the Marxist or Marxist-inspired art history of Arnold Hauser, Meyer Shapiro, and others and runs parallel to similar traditions in geography.⁷ Defining the interrelationship of art history, geography, and digital spatial analysis thus moves us not away from key art-historical concerns but instead towards the debates at the center of our discipline of great longevity and contemporary urgency. We should be arguing thus not about the digital per se but about what are the most crucial subjects of art history that can make a critical intervention in human understanding today. If one such subject is analyzing art in relationship to shifting political economies and global systems – a central concern of social art history – then we have to find approaches that let us tackle that question. Highlighting digital art-historical methods points us to an analysis of the scale of evidence needed for a deep interpretation of this social art-historical concern.

The basic evidence of art history seems obvious: works of art from all cultures and all times as well as their attendant documentation (if any) on their inception, production, and reception. But hidden behind this banal statement is a more complicated problem: while the wide world of art is our disciplinary subject, the qualitative methods that we have used have precluded any real study of that world as a whole. Instead, we have tended over and over again to limit ourselves to a few select works, or a clear group of artists, or buildings in one region, or perhaps the work of a particular cultural or temporal period. That is to say, like most areas of humanistic inquiry, we

have been limited to the case study model from which we have attempted to extrapolate at times wider systemic interpretations. For every new attempt at a global art history there are a hundred scholars who can tell you what important cultures, groups, or artists are excluded; and for each new analysis that offers a comprehensive method that encompasses the discipline, an array of dissenters instantly springs forth. This problem is not new to art history and, indeed, has been with us since the founding days of the discipline. Perhaps for these reasons, the most successful and influential art-historical texts have often had clearly defined temporal or spatial limitations to their sample—say, cultural connections across the borders in a specific political moment—or have been methodological approaches appropriate for a specific subgroup of objects—such as iconography, and its favoring of representational painting, print, and sculptural traditions.⁸ While there are exceptions, generally speaking this pattern is oft repeated. A map of the world may be doable, but the history of the world’s art seems to elude our grasp.

Digital methods that emphasize quantitative analysis of complex data seem to offer some challenging ways at least to rethink this dominant paradigm in our discipline and others. Now certainly anyone who has attempted to build a database and do digital scholarship knows to be skeptical of the lure of the quantitative alone. The well-established caveat that more data do not equal greater truth holds here as elsewhere.⁹ That said, as an important starting point, digital approaches that grapple with a larger body of evidence as well as its complexity *can* help us to think anew about the nature of our art-historical evidence in innovative ways. In other words, we can begin to map digitally our existing art histories in order to learn more about the nature of art-historical work, thus strengthening our other non-digital analyses and understanding our limitations and possibilities all the more as we build towards a larger investigation.

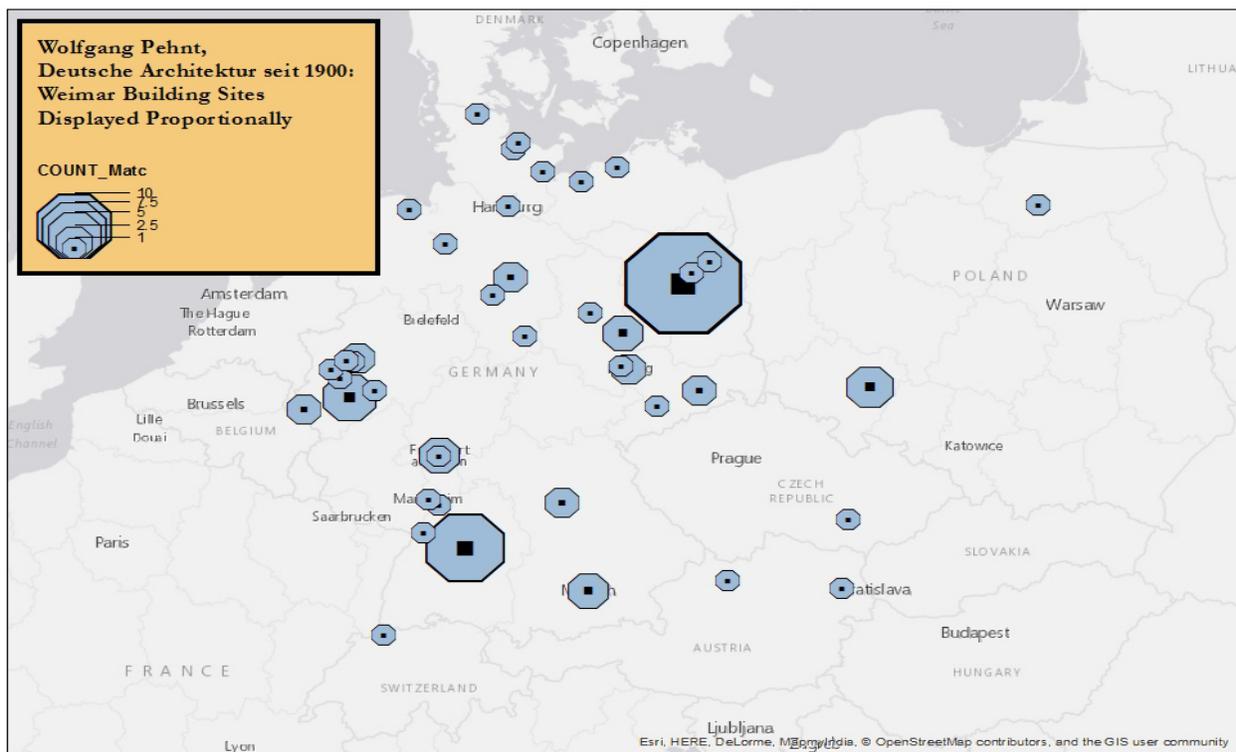


Figure 1. Draft Map of German Building Sites (1918-1933) Mentioned in Wolfgang Peht, *Deutsche*

Architektur seit 1900, (2005). Author's map.

The most obvious application of such thought is in mapping the historiography itself. Take, for example, a simple proportional map of building sites from Weimar Germany (1918-1933) mentioned in one of the most authoritative surveys of modern German architecture, Wolfgang Pehnt's *Deutsche Architektur seit 1900* (Figure 1). Weimar was an extraordinarily productive moment in German architecture that brought to international attention such well-known names as Walter Gropius, Ludwig Mies van der Rohe, and Erich Mendelsohn, among many others. Pehnt's selection looks at first fairly well distributed across the country, with some obvious clustering in Berlin and Stuttgart (sites of very prominent and influential university architectural programs, among other reasons) as well as the not surprising grouping around the Ruhr industrial cities like Düsseldorf that continued their rapid growth in population and productivity during World War I and after. Yet the content of the map also immediately signals the selectivity of the evidence as well: the political core of Prussia, a state concentrated in the north and the west, clearly dominates the selection; those parts of Prussia less connected to this core (like Silesia or, even more overtly, East Prussia at the top right of the map) are of relatively minor interest; and the important competing state of Bavaria, to the southeast, has only a few buildings mentioned and these only in its two most prominent cities, Munich and Nuremberg. Even discussing this political geography also points to the clear bias towards urban administrative centers and against the hundreds of thousands of other architectural examples that could have been drawn from the more rural areas of Germany. Just as geographers know that maps lie, so too do art historians know that our evidence is selective; however, it takes something like a digital map to show us how we are selective and to what degree.¹⁰ Maps and geographic concepts like spatial concentration and distribution help us to know our own particular work and interests better.

In a more analytic vein, Gagliardi's *Mapping Senufo* project featured in the introduction to this issue clarifies the importance of using digital methods and geographic concepts for evaluating evidence as an important stage of her ongoing research and analysis. Gagliardi reminds us that when a cultural designator or group label like Senufo is applied it can overtly or covertly be used to collapse actual distinctions between languages, religions, social organizations, or geographies. At its most insidious, as in the conflation of some art-historical and geographic concepts in the *Kunstgeographie* of the Nazi period, such thinking has led to the promotion of racialized and racist scholarship that has tautologically projected a fictive formal cohesion onto equally fictitious human and geographic groupings.¹¹ To avoid such spatial and cultural essentializing, Gagliardi talks about the iterative nature of the digital mapping process, which constantly asks for corrections and refinements, i.e. that the digital method is exactly the opposite of essentializing. It leads also, though, not to a kind of random postmodern relativism, but to an ever sharper and clearer understanding of very real historical and cultural spatial patterns that raise new questions, demand new evidence, and require variable methods of analysis. The digital is not a passive vessel in this humanistic analysis, employed at the end to summarize visually the results; rather it is an active interpretive mode that points to the complexity of social relations with and around cultural objects.

This use of digital mapping to critique the field is the dynamic opposite of the use of such methods to expand the field, especially in what Gardner-Huggett (citing Kim Gallon) calls the "technology of recovery."¹² Indeed, mapping pushes art history to consider broader concepts of spatial concentration and distribution in profound new ways. In particular, it can force us to think about how our individual artists, works, groups, or regions (i.e., our case studies) are related to larger spatial patterns. That is, it pushes us to think systemically. Gardner-Huggett's example of

late twentieth-century feminist artist collectives in Chicago exemplifies these points. Feminism as a theory and practice in art and art history have long confronted the exclusionary male bias in these areas as well as the complementary empowerment embodied in the important work of building up networks of solidarity. But such feminist networks of solidarity have other forces pushing against them at different systemic levels, above all those of race and class, which, from my perspective, are suggested by the mapping process here. Gardner-Huggett's spatial analysis points to these additional pressures, given that her maps force her and us to confront the regional nature of feminist networks rather than assume a utopic nationally aligned community. Such a regional network in the Midwest relates to additional factors like educational "chain migrations" to the cooperative galleries as well as market and career pressures, as Gardner-Huggett shows through other evidence from interviews and archives. Yet it is through recognizing the complexity of factors that pushed and pulled at feminist cooperative artistic practice and visualizing their regional clustering that Gardner-Huggett shows us the broader systemic forces at work. What started as a case study of two cooperatives thus ends up pointing us to this dialectical relationship between individual feminist actors and the social and professional networks of which they were systemically a part. This analytical move also points to the feminist theoretical work that Gardner-Huggett is doing: in returning us to a view of the larger structure of society and how women could or could not negotiate it, we are reminded of both the hurdles that feminists faced as well as the necessity of collective practice.

In these cases of what we might call critical digital art history, the quantitative work of constructing a dataset and then querying it in GIS has not been accepted at face value but rather contextualized with qualitative historiographical and archival analysis, among other approaches. Quantitative methods have long been pushed to the margins of art history just as the false positivism of GIS has been critically examined in geography.¹³ Triplett's viewshed and cost-distance analysis of Muslim/Christian frontier fortifications in medieval Iberia calls for a similar contextualization that balances and makes analytic his innovative use of digital spatial methods. Triplett, who also relies on a systemic spatial scale for his analysis, adds to this approach the importance of a more granular temporal scale to really critically investigate the previously unrecognized shifting borders of power between Muslim and Christian forces in the Iberian peninsula from the tenth to the fifteenth century. Triplett points most convincingly at this finding when he talks about how constructing a database of hundreds of buildings prompted him to realize that the central analytical factor giving meaning to the site was not the building itself but rather the "events" associated with the building. For Triplett, digital methods help to locate the meaning of the structure in its use and experience, which in turn led him to the experiential modes of viewshed analysis and the very human-centered interpretation of cost-distance. Using these methods, Triplett shows us, for example, that fortifications once thought obscure had much greater strategic value than we had supposed. That is to say, ignored or at best marginalized art-historical subjects are suddenly brought to the core of our concerns through the digital visualization process. They are then, in turn, convincingly contextualized with the ideological and politically strategic historical evidence such as the importance of the output of Salvatierra for both the Almohad Caliph as well as the King of Castile. A geographer's interest in visibility, invisibility, and surveillance are visualized here using digital methods that in turn lead to new subjects for art history as well as innovative ways of interpreting their cultural significance.

To return, however, to my introduction, I think it worth emphasizing here that these examples (or digital mapping methods in art history in general) are not mere mash-ups of geography and our discipline. This is not interdisciplinary work, in the strictest sense of the term. Indeed,

the iterative mode and emphasis on process fight against a totalizing and perhaps utopic project of interdisciplinarity. Instead, geographic concepts and digital-mapping methods are brought in at strategic parts of each scholar's research and contribute by pushing the investigation in new ways. Further, here and elsewhere in digital art history, they are digital interventions that rely on collaboration and multiplicity of areas of expertise, i.e. they are multidisciplinary in the true definition of the term.¹⁴ We might think about this in relation to Bruno Latour's "Compositionist Manifesto" in which he argues that, rather than idealist understandings of history (orthodox Marxism included), we should be recognizing the more additive and constructed process of knowledge that can help our "searching for universality."¹⁵ *Composition*, as a term for Latour, emphasizes the active role of putting disparate things together. It is in this sense that I think his work is helpful here since it emphasizes that different modes of knowledge, of concept, or of evidence can contribute to a more complex picture of the whole while retaining their particularities. From this perspective, we know that science or quantitative methods cannot completely explain the world any more than the humanities can. Each contributes, however, and arguments can be carefully and gradually composed attending to such variegated evidence and method.

Latour demonstrates this philosophy elsewhere in both art-historical and spatial terms. In his essay developed with Adam Lowe on Veronese's *Marriage at Cana* (1563), Latour situates the analysis of the object within its space(s) of display. Veronese's work is a monumental painting now in the Louvre which was made for the dining hall of the monastery of San Giorgio Maggiore in Venice. In 2007, a meticulous digital visualization of the painting by the Spanish team of Factum Arte was installed in San Giorgio's where the original had been before it was looted by Napoleon's army. Latour and Lowe convincingly argue that neither the painting nor the space of the dining hall are the "original", since the site-specific work needs its space to be understood just as the digital reproduction needs the painted object now in Paris. One sees the painting in the Louvre and experiences the space in Venice, but the work and the space are both necessarily part of the cultural meaning. Rather than privilege one over the other, Latour and Lowe argue that each space and each work (digital and analog) contribute a part of the meaning, which has to be composed from both.¹⁶ While there is much more to their argument, this essential aspect points to the broader issue at stake here which is that digital modes allow for thinking about spatial and artistic evidence in new – distinctive but related – ways.

Beyond Latour, such relational thinking is integral to the project of the social history of art. Social art history has long pondered and analyzed how specific artworks relate to and tell us about their social (and hence spatial) systems of which they are a part. Artworks are not transparent to social orders but rather exist relationally to historical systems especially those of domination and resistance. That digital mapping helps us critique historiographic norms, question essentializing social categories, focus on the impact of networks, or analyze the temporal significance of cultural forms points to issues that are at their core social art-historical ones. Additionally, such methods help us interrogate our source base in new ways, allowing for a more rigorous humanistic understanding of our arguments and interpretative frameworks. In this sense, digital mapping in art history is not just an add-on to the field but rather extends and argues for specific important problems of historical and historiographical critique as central to our discipline. As with any other discipline, debating what is at the core of our concerns has been a deep and long process that has been at times contentious, at other moments radical, and not infrequently reactionary. The social art-historical project confronts this debate with an emphasis on the goal of accounting for art's systemic function and how social relationships explain its import.¹⁷ With digital mapping, that project comes again clearly to the fore and necessitates an engagement in particular with geographic concepts.

NOTES

1. See, for example, the typological approach taken by Heinrich Wölfflin in his canonical *Principles of Art History: The Problem of the Development of Style in Early Modern Art, One Hundredth Anniversary Edition* (Los Angeles: Getty Research Institute, 2015). More pointedly (and more problematically racialized) see Wölfflin's later overlooked book on the essential distinctions between German and Italian art: *Italien und das Deutsche Formgefühl* (Munich: F. Bruckmann, 1931).
2. For architectural history, see for example the ground-breaking group of scholars in Robin Middleton, ed., *The Beaux-Arts and Nineteenth-Century French Architecture* (Cambridge: The MIT Press, 1982).
3. See, e.g., the discussion of Charles and Ray Eames' film *The Power of Ten* (produced for IBM) in Beatriz Colomina, "Enclosed by Images: The Eameses' Multimedia Architecture," *Grey Room* (Winter 2001), 6-29.
4. Most recently, see Thomas DaCosta Kaufmann, *Toward a Geography of Art* (Chicago: University of Chicago Press, 2004).
5. Paul B. Jaskot and Anne Kelly Knowles, "Architecture and Maps, Databases and Archives: An Approach to Institutional History and the Built Environment in Nazi Germany," *The Iris* (15 February 2017), http://blogs.getty.edu/iris/dah_jaskot_knowles/. Here as elsewhere I am indebted to the long-running collaboration and dialogue with my colleague, Anne Kelly Knowles, as well as her innumerable important contributions to historical geography.
6. Among many examples, see Jodi Cranston's project, *Mapping Titian* (<http://www.mappingtitian.org/>) as well as Lev Manovich's innovative projects around visualization such as Phototrails (<http://phototrails.net/>). Important research in this area has been led by such ground breaking work as Diane Favro and Christopher Johanson, "Death in Motion: Funeral Processions in the Roman Forum," *Journal of the Society of Architectural Historians* 69, no. 1 (March 2010), 12-37.
7. This is particularly the case in the overlapping critical concern of geographers and art historians in the scalable nature of spatial questions. See the overview of the concept in Andrew Herod, *Scale* (London: Thames & Hudson, 2010).
8. Of interest to geographers in this regard may be examples such as the cross-border analysis of Emily Edwards' maps in Delia Cosentino, "Picturing American Cities in the Twentieth Century: Emily Edwards's Maps of San Antonio and Mexico City," *Imago Mundi* 65, no. 2 (2013), 288-99; or, for iconographic analysis (especially in her chapter on Dutch maps), Svetlana Alpers, *The Art of Describing: Dutch Art in the Seventeenth Century* (Chicago: University of Chicago Press, 1983).
9. This is a point made frequently on the important Digital Humanities listserv, *The Humanist*, edited by Willard McCarty.
10. Mark Monmonier and H.J. de Blij, *How to Lie with Maps*, Second Edition (Chicago: University of Chicago Press, 1996).
11. See the overview of *Kunstgeographie* including its ideological instrumentalization before, during, and after the Nazi period in Kaufmann, 68-104. For geography, see the essays in Paolo Giaccaria and Claudio Minca, *Hitler's Geographies: The Spatialities of the Third Reich* (Chicago: The University of Chicago Press, 2016).
12. Kim Gallon, "Making a Case for the Black Digital Humanities," in *Debates in the Digital Humanities*, eds. Matthew K. Gold and Lauren F. Klein (Minneapolis: University of

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- Minnesota Press, 2016), 42-49.
13. See our attempt to address these issues in Paul B. Jaskot, Anne Kelly Knowles, and Chester Harvey, with Benjamin Perry Blackshear, "Visualizing the Archive: Building at Auschwitz as a Geographic Problem," in Anne Kelly Knowles, Tim Cole, and Alberto Giordano, eds., *The Geographies of the Holocaust* (Bloomington: Indiana University Press, 2014), 158-91.
 14. In the related context of pedagogy, see Hannah Jacobs, "Collaborative Teaching and Digital Visualization in an Art History Classroom," *VRA Bulletin* 43, no. 2 (2016), Article 4, <http://online.vraweb.org/vrab/vol43/iss2/4>.
 15. Bruno Latour, "An Attempt at a 'Compositionist Manifesto'," *New Literary History* 41 (2010), 474.
 16. Bruno Latour and Adam Lowe, "The Migration of the Aura or How to Explore the Original through its Facsimiles," in Thomas Bartscherer and Roderick Coover, eds., *Switching Codes: Thinking Through Digital Technology in the Humanities and the Arts* (Chicago: University of Chicago Press, 2011), 275-98.
 17. See examples of this direction in art history in, among others, Warren Carter, Barnaby Haran, and Frederic Schwartz, eds., *Renew Marxist Art History* (London: Art/Books, 2014) as well as Andrew Hemingway, ed., *Marxism and the History of Art: From William Morris to the New Left* (London: Pluto Press, 2006).