

INTRODUCTION

THE UNCERTAINTY OF EPISTEMIC IMAGES

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The term “epistemic image” is a relative newcomer to academic discourse. In searching for its origin, we can find no published example earlier than the 1990s, which strongly suggests it is the product of three interconnected historiographical trends. First, the art-historical tradition of studying relations between art and science, evident since at least Panofsky but familiar to us through more recent writings by the likes of Martin Kemp, Barbara Stafford, and Svetlana Alpers. Particularly important is the brief account of “prints and facts” in David Landau and Peter Parshall’s *The Renaissance Print*, and Parshall’s articles on *imagines contrafactae* and curiosity in early modern Europe. Second, the rise of visual-culture studies in the Anglosphere and the growing prominence of both *Bild-* and *Medienwissenschaft* in the German-speaking academy. Here we might invoke the many “non-art” images (can we call them “epistemic”?) that litter the pages of books by Michael Baxandall or Horst Bredekamp. Third, the pictorial turn in the history of science, associated especially with the work of scholars such as Lorraine Daston, Peter Gallison, and Hans-Jörg Rheinberger, and which is strongly connected to the trends mentioned above.¹

Early modernists often deploy the term “epistemic image” as an alternative to “scientific image” or *wissendes Bild*. “Epistemic” – most notably associated with Foucault – seems to be less anachronistic and more capacious, more poetic than “scientific image”. It seems somehow more flexible, broader, less burdened by historiography and methodological dispute. Indeed, part of the appeal of the term may be its relative *lack* of definition: by invoking “epistemic images” scholars can get away with things that other terms might prohibit or curtail. While this certainly has benefits, it is a potentially risky heuristic, which relies for its efficacy on the tacit suppression of robust, historically defensible definitions along with the insinuation that “epistemic” and “image” are necessarily better or more accurate actors’ categories than are the words “scientific” and “art”. Given this evasion or suppression of definition, the essays collected here offer contours rather than conclusions about art’s peculiar negotiations of knowledge, information, and aura. These are negotiations which, we feel, are timely not simply because of

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For an overview of this historiography, see Alexander Marr, *Knowing Images*, in: *Renaissance Quarterly* 69, 2016, 1000–1013. The research for this output was supported by an ERC Consolidator Grant, ‘Genius before Romanticism: Ingenuity in Early Modern Art and Science’, funded by the European Research Council under the European Union’s Seventh Framework Programme (fp7/2007–2013)/erc grant agreement no. 617391.

today's hyper-mediated image culture, but because of the strange ways in which the legacy of deconstruction made us see that "facts", wilfully questioned, breed uncomfortable uncertainties about what we actually expect artworks to do.

A huge body of humanities work theorises and taxonomises "the image". The work of Charles Sanders Peirce and his followers, for example, obsessed with the semiological triad "icon/index/symbol"; the diagrammatology of Frederik Stjernfelt – a sort of "visual studies" alternative to Derridean deconstruction; or the multiple species – such as "semasiographs" and "subgraphemics" – proposed by James Elkins in his influential book, *The Domain of Images*. Does the study of "epistemic images" imply or require commitment to such semiological and taxonomic structures? Do we need a strong definition of "image" before we even get to the "epistemic", or can we allow "image" to be a placeholder that allows certain kinds of productive work?² How we answer these questions will depend on whether we are concerned with historical specificity or theoretical systematicity; whether we are nominalists or realists; the emphasis we give to actors, categories or the degree to which we are comfortable with anachronism. The essays in this volume resist neat enfoldings into any of these.

The problem in *not* attending to the definition of "image" concerns a debate in semiotics, addressed for example in the work of Tom Mitchell, in which "image" is to be distinguished from "picture". Put crudely, the difference posited is between the immaterial "image" and the material "picture": the mentally graspable form and the visually manifested de-piction.³ This is significant on several counts. To date, discussion of epistemic images has been limited to what Mitchell would call "pictures": the drawn, painted, and printed things with which the essays in this volume are chiefly concerned. But as early modernists dealing with a world of *species*, *phantasmata*, and *imagines* we might well wish to probe the connection and distinctions between immaterial and material visual forms, in so far as these relationships are fundamental to period notions of sense perception, cognition, and the knowledge systems that constitute an "episteme". So, can an epistemic image be immaterial as well as material, and if so, what further issues does this raise, particularly in relation to the historical study of materiality and embodiment?⁴

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See, for example, Elkins: "[W]hat counts more than theories of images is theories that take image as a given term, and ask about how images work, or what relations they create or presuppose, what agency they might have, or how they appear in discourse." James Elkins, Introduction, in: James Elkins and Maja Naef (eds.), *What Is an Image?*, University Park, PA 2011, 1–12, 6.

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See e.g. Marion G. Müller, What is Visual Communication? Past and Future of an Emerging Field of Communication Research, in: *Studies in Communication Sciences* 7, 2007, 7–34.

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See, for example, Tanja Klemm, *Bildphysiologie. Wahrnehmung und Körper in Mittelalter und Renaissance*, Berlin 2013. Klemm proposes "Bildphysiologie" – a phenomenon linked to bodily functions – as an alternative to the apparently favoured theory of images in

There seems to be a tacit assumption – collusion, even – that we know what we mean when speaking of epistemic images: that they are somehow a better, more flexible, more period-appropriate alternative to “scientific image”. The presumed flexibility derives from the basic definition of “epistemic” as (to quote the OED): “of or relating to knowledge” (first use 1819). Thus, a simple definition of “epistemic image” would be “image which seeks to produce, represent, or communicate knowledge”. But according to this definition, what would *not* count as an epistemic image? Surely all images produce, represent, or communicate *some* kind of knowledge. The unstated presumption amongst scholarly users of the term is that epistemic images are in fact concerned with a *particular* kind of knowledge, the kind invoked by the Greek root of the English word: *epistēmê*. And since *epistēmê* is an early modern actor’s category, at least in its routine translation into Latin as *scientia*, we might presume that epistemic images are concerned not just with any kind of knowledge, but with “certain” knowledge. To remind us of the tradition at stake, take Nancy Siraisi’s elegant and lucid definition:

In the Aristotelian sense of the term, *scientia* (*episteme*) was understood to refer to certain knowledge about a distinctly defined subject, achieved by rational demonstrations based on generally accepted premises and leading to universally valid conclusions.⁵

According to this definition, we would need to distinguish epistemic images from other kinds of image associated with those things to which *epistēmê* was contrasted and considered superior, such as *techne*, *doxa*, and so on. According to the scholastic definition, the epistemic image would be concerned with universals rather than particulars, and thus geared more towards theoretically based rather than empirically derived knowledge, as distinct from, say the sort of knowledge associated with *historia*. But we should not simply take scholasticism as the norm in an (early modern) period undergoing rapid changes to structures of knowledge and methods of knowledge production. Indeed, these changes are surely one of the reasons that it is early modernists who seem most attentive to epistemic images and why most attempts to define “epistemic image” come from that field.

These definitions differ significantly in kind. In their excellent article on typologies of medieval and early modern scientific images, Christoph Lüthy and Alexis Smets define “epistemic image” thus:

Renaissance studies, in which the image is purely an “epistemic” (her term) phenomenon, a visualisation of scientific findings.

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Nancy G. Siraisi, *Medicine and the Italian Universities, 1250–1600*, Leiden 2001, 295.

[W]e use the term “epistemic image” to refer to any image that was made with the intention of expressing, demonstrating or illustrating a theory.⁶

In studying epistemic images, Lüthy and Smets are motivated by a desire to counter the “supra-historical, essentialist” attitude of those seeking a systematic account of scientific imagery, in particular by emphasising the historical contingency of images and ideas. They are concerned less with things observed than with theories presented and proofs demonstrated in charts, tables, and diagrams. Yet while their case studies – which include diagrams by Giordano Bruno, alchemical emblems, and so on – are well chosen, their use of “epistemic image” is underdetermined. If we take their definition at face value, presumably we could extend “epistemic image” from diagrams to pictorial allegories of all kinds, narrative painting, and anything that “expresses” a theory of something. Some of the essays in this volume take just this kind of capacious approach. Yet art, in such a situation, is always subservient to a kind of illustration, a Platonic straitjacket.

Lorraine Daston’s definition is different. Her understanding of “epistemic” is both precise and restrictive:

An epistemic image is one made with the intent not only of depicting the object of scientific inquiry but also of replacing it. A successful epistemic image becomes a working object of science, a stand-in for the too plentiful and too various objects of nature, and one that can be shared by a dispersed community of naturalists. [...] An epistemic image earns its name by translating abstract epistemological priorities into concrete pictures.⁷

The differences are stark: Lüthy and Smets are concerned with theories expressed, Daston with objects observed; the former are content with what we might call an “intention to show”, while the latter emphasises concrete substitutability. For Daston, epistemic images must be representations of things observed in nature, depicted with an eye to standardisation, visual consensus, and collective empiricism. This is very far from the scholastic notion of *episteme* and seems to be at the opposite end of the spectrum to Lüthy and Smets’ theory-based definition.

Between these two definitions of the early modern epistemic image – one underdetermined, the other overdetermined – several questions arise, with which (explicitly or implicitly) all of the essays collected here engage:

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Christoph Lüthy and Alexis Smets, Words, Lines, Diagrams, Images. Towards a History of Scientific Imagery, in: *Early Science and Medicine* 14, 2009, 398–439, 399, note 2.

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Lorraine Daston, Epistemic Images, in: Alina Payne (ed.), *Vision and Its Instruments. Art, Science, and Technology in Early Modern Europe*, University Park, PA 2015, 13–35, 17–18.

1. The methods of production and reproduction: the *techne*, let us say, of epistemic images. How much attention should we pay to materials and techniques? Should skill – a very different kind of knowledge to *scientia* – play a prominent role in our discussions?
2. Audience: whether communities of naturalists, collectors, *virtuosi*, connoisseurs, etc. How did their use (or, just as critically, *non-use*) of epistemic images differ or align? What did they bring to the image? Is there a distinctive “beholders’ share” for these things?
3. Rather than thinking about the ways in which “certain”, “accurate”, or “theoretical” knowledge is recorded and depicted, might we not shift our attention a little to think about *the means by which images persuade* us that a particular kind of knowledge is reliable? Attending to visual means of persuasion leads us not just to the hoary platform of rhetoric, but to staples of art history: style, affect, sensory pleasure, and all those devices of which science – from early modernity to now – has traditionally been suspicious.

Above all, we might wish to consider whether *all* epistemic images are actually interesting, or whether some are more interesting than others. We may well find that epistemic images compel only in those cases when they deploy non-epistemic means or come into contact with non-epistemic ends. The logical consequence of this would be that the future of this topic lies, paradoxically, in studying the instability of academic “certainty” itself.