

How Much Knowledge is Worth Knowing? An American Intellectual Historian's Thoughts on the *Geschichte des Wissens**

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Summary: This essay investigates the origins and assesses the advantages and disadvantages of the new field known as *Wissensgeschichte* from the perspective of an American intellectual historian. It argues that while some historians of science may be ready to embrace a new identity as *historians of knowledge*, this terminology remains baggy and invites facile applications of Foucauldian theory. The essay concludes with the hope that the *history of knowledge* approach may instead open up new avenues for conversation and collaboration between historians of science and garden variety historians.

Keywords: Foucauldian theory, intellectual history, methods, terminology

If knowers are supposed to know themselves, I fear I have been a miserable failure. It is only in the preparation for writing this essay that I have discovered that, to use a nautical metaphor, I have for some time been sailing with the winds of a form of inquiry its Swiss and German advocates call *Geschichte des Wissens*, or *Wissensgeschichte*. To date I have chiefly called myself a historian of ideas, or, adopted a definition coined by my friend and former colleague Peter Lake, who once described my work (like his own) as “the history of mediocre minds.” But neither of those designations have ever felt quite right. Although *Wissensgeschichte* is new to me, in investigating the evolution of the field I have found that I share many of its advocates' commitments—to the linking of discourses and practices, to the expansion of our canon of *Wissensakteure*, to the study of institutions and the circulation (or not) of ideas—probably not least because I have traveled in many of the same circles, and read many of the same books, as the framers of new discipline or subdiscipline (which of these it should be will occupy me at the end of this essay). But I am just now learning the field's ropes and trying to work out its riggings; I am not altogether sure how, or whether, to get on board.

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In this exploratory essay, I would like to pose a few questions about *Wissensgeschichte's* methods and aims, its origins and antipathies, and its implications for us not only as researchers, but also as teachers and mentors of graduate students. What are its relationships to the history of science, the history of the book, and to intellectual history, and how does it aspire to break down the borders between these presently fuzzily defined fields? Does this approach really offer new and helpful insights, or is it new wine in slightly stretched old wine skins? Or worse, might it be an invitation to fill those wineskins to bursting? Are we—whose business is, after all, knowledge-creation and -transmission—in danger of imagining every action or event in the past and present as the product of some form of knowledge? How do we decide how much history of knowledge is worth knowing? Perhaps as a seafarer seasoned by other seas, I can offer some fresh thoughts on how we got here, and how we might best, cautiously, proceed.

What is *Geschichte des Wissens*, and Why Now?

Perhaps the easiest question to answer about the *Geschichte des Wissens* is the where? question. Those who self-consciously style themselves as practitioners of the *Geschichte des Wissens* are clustered in several places (as network analyses would predict!). In Switzerland, there is a center for *Geschichte des Wissens* shared between the Universität Zürich and the ETH Zürich (and founded already in 2005); it publishes a journal with the telling name: *Nach Feierabend: Zürcher Jahrbuch für Wissensgeschichte*, and offers an interdisciplinary master's degree in the *Geschichte und Philosophie des Wissens*. Some of the leading voices here are the Center's co-founders David Gurgeli, Michael Hagner, Philipp Sarasin, and Jakob Tanner, but there are many others who belong to this network and contribute to the journal. Most are historians—many formerly social historians—but there are also those who claim allegiance to literary history, historical anthropology, STS, philosophy, and other fields. The punning name of the journal is noteworthy: as the first editors described, *Nach Feierabend* was meant both to signify what one does after writing hagiographic histories of scientists (during one's weekends and holidays), and after the ideology critiques of the maverick physicist and polemicist Paul Feyerabend, who worked in Zürich in the 1980s.¹ The backgrounds and publications of the leading members of the group also indicate that this group is working very much in the shadow of Michel Foucault. The range of topics covered in the volumes so far include the circulation of knowledges, data sciences and their forms of truth, the history of ignorance, the question of what is left of Darwin, and of the Humboldtian university ideal.

Further hot spots for the pursuit of *Wissensgeschichte* are places in Germany, Scandinavia, and the US where *Wissenschaftsgeschichte* has thrived, and gradually taken on wider and wider ambitions. Berlin's *Max-Planck-Institut für Wissenschaftsgeschichte* (MPIWG), which has done so much to enhance and expand the conceptual, geographical, and methodological foundations for the history of the sciences, is a major center from which new and exciting work of this sort has radi-

¹ "Editorial," *Nach Feierabend* 1 (2005), 8–9, accessed at: https://www.zgw.ethz.ch/fileadmin/ZGW/PDF/Editorial_Nach_Feierabend.pdf

ated across the world. Now in its forty-first year, this journal (*Berichte zur Wissenschaftsgeschichte*) can boast a founding editorial by Fritz Krafft which rejected the history of science's focus on the exact sciences and embraced a multiplicity of disciplines;² the journal, and the practices of the *Gesellschaft für Geschichte der Wissenschaften*, have grown increasingly inclusive ever since (the same can be said about its north American cousin, the *History of Science Society*, and its journal, *Isis*). Having recently moved to Munich, it has adopted an English subtitle: *History of Science and the Humanities*). In Scandinavia, interdisciplinary scholars have also been pursuing work under this head for some time, and in 2014, a network titled "History of Knowledge" was founded at the University of Lund to pursue, specifically, this history for Sweden and the other Nordic countries.³ In the US, the term is less familiar, but similar historiographical directions are palpable, above all at Princeton, Harvard, the University of Wisconsin, Madison, and the University of Chicago, which enjoy close linkages in particular to Berlin's *Max Planck Institute*.⁴ Simone Lässig, the new Director of the German Historical Institute in Washington, came to the *Geschichte des Wissens* by way of social and cultural history; by making the *history of knowledge* one of this research institute's three major fields of emphasis, Lässig has begun to initiate a conversation among American and German historians that reaches beyond history of science circles.⁵ Although the term *Geschichte des Wissens* may not be deployed, it is clear that historians of the humanities—like myself—have also begun to emphasize practices, circulation, and reception (though to be fair some of us have been doing some of this for a long time).

I am much less knowledgeable about centers in France and the UK, but some of those who have contributed most to the field's founding (Foucault, Bruno Latour, Peter Burke) hail from these countries, and in both places there are cutting-edge scholars who work in similar ways, for example, on 'cultural transfers,' which might just as well be labeled 'knowledge transfers,' or on reception histories. Historians of the humanities have recently shown lively interest in such subjects, as suggested by the recent founding of a number of related journals, *Erudition and the Republic of Letters* (Brill); *Know* (University of Chicago Press); *History of the Humanities* (also University of Chicago); *Classical Receptions Journal* (Oxford); a *Journal for the History of Knowledge*, sponsored by the Belgian-Dutch Society for the History of Sciences and Universities will appear as of 2020, appropriately enough to be published by Ubiquity Press. In that same year, the American journal *History & Theory* will publish a special volume devoted to 'the history of knowledge' as its 60th anniversary issue.

² Wahrig and Ash 2007, 6.

³ See the network's website, www.newhistoryofknowledge.com. One of the leaders of this effort, Johann Östling, prepared a paper for the Oslo conference mentioned in fn. 1 which offers a complementary exposition of the field and expresses a more ecumenical approach to the topic than the one offered by Sarasin. I would like to thank Johann Östling for allowing me to refer here to his paper, a revised version of which will appear in the *History & Theory* volume mentioned below.

⁴ All four universities offer very strong programs in the History of Science, and employ dynamic mentors such as Anthony Grafton, Lorraine Daston, Angela Creager, Michael Gordin, Glenn Most, Peter Galison, Lynn Nyhart, Katherine Park, and Robert Richards who advise large numbers of graduate students.

⁵ Lässig 2016.

What the *Geschichte des Wissens* consists in is somewhat differently construed by various writers, but perhaps most influential has been Philipp Sarasin's programmatic essay, "Was ist Wissensgeschichte?" of 2011. Here, Sarasin, who began his career with a dissertation on the *Bürgertum* of Basel, but quickly took up Foucauldian studies of bio-politics, makes a plea for historians to turn the German political and social historian Jürgen Kocka's conception of society on its head, and to understand systems of knowledge rather than social structures as fundamental for the ways in which power is distributed; if historians are to understand the web of human relations, they should start not with politics, society, or belief systems, but, Sarasin argues, with the "social production and circulation of knowledge." Historians of knowledge are warned against judging the correctness of the knowledges they write about and reminded that "the author as the source [*Ursprung*] of meaning is already long dead." The proper means to proceed is to undertake a kind of post-Foucauldian analysis of what we used to call 'the rules of discourse,' now supplemented with a study of practices and media technologies. Finally (but tellingly) Sarasin notes that a moderately "*aufklärungsskeptisch*" attitude toward progress and truth ought to be adopted, and "linked to the question—foundational for everything—of power."⁶

Other versions of the history of knowledge demonstrate a fainter Foucauldian imprint. Steven Shapin's harbinger, *A Social History of Truth* (1994), was sociological rather than Foucauldian, drawing on the work of Nikolaus Luhmann and Anthony Giddens. Other works are more deeply indebted to post-Foucauldian work in the history of science than to Foucault directly. David Gugerli and Daniel Speich Chassé claim that *Wissensgeschichte* is the natural outcome of directions the history of science has taken and champion the approach of Hans-Jörg Rheinberger, whose work on big science widens "the focus on the intellectual-historical content by including the technical conditions of its genesis and stabilization."⁷ Lorraine Daston arrives at a tempered endorsement of the history of knowledge from the conviction that the expansion of the chronology and geography of science studies, and the emphasis on practices have made impossible "the excising of science clearly from other ways of knowing and doing." Her suggestion that a history of knowledge "might begin by looking at how classifications of hierarchies of knowledge as well as cardinal epistemic virtues shift over time both within and among cultural traditions,"⁸ has the ring of *The Order of Things*, but without its claims about inescapable epistemological breaks across time periods. Foucault is largely missing in the work of Peter Burke, whose two-volume project, *A Social History of Knowledge*, predates *Wissensgeschichte* and draws more directly on 'the sociology of knowledge' of Karl Mannheim.⁹ Burke has felt himself vindicated by the recent uptick in knowledge studies, and in 2015 published an overview of newer and older work in the field, titled: *What is The History of Knowledge?* (Notice the missing "social"; we will return to this below.) Burke is comfortable

⁶ Sarasin 2011, 164, 170, 172.

⁷ Speich Chassé and Gugerli 2012, 95.

⁸ Daston 2017, 144–45.

⁹ Burke 2000, 2012.

with a much more eclectic approach to the subject, and is satisfied with providing an overview of the many different ways in which scholars in recent years have undertaken knowledge studies. In their essay on migration and the history of knowledge, Simone Lässig and Swen Steinberg draw chiefly on anthropological insights and global histories.¹⁰ Other key contributors are scholars in media studies such as Lisa Gitelman.¹¹ Shared, perhaps, is a general skepticism about great men, progress, and the inevitable victory of truth; but otherwise there is a great deal of theoretical as well as empirical elasticity in the field.

The advocates of this new field are in general agreement about the *external* factors which have contributed to its evolution: the advent of big science and the digital revolution, to begin with, have posed new questions about how knowledge in the past has been generated and communicated. We university scholars want to know about knowledge because it is our business, but in the age of micro-processors, grand-scale collaborative ventures, and instantaneous electronic communications (as well as silent data collection and text mining), its formulation and future are more mysterious to us today than perhaps ever before.

Internally, impetus comes most importantly from the history of science's frustration with the category of *science* and/or *Wissenschaft*. It is worth noting the limitations of both the English and the German term here. On the one hand, *science* heavily implies the natural sciences, and also a certain kind of western, empirical certainty, which usually does not apply to the social sciences and humanities, and excludes experiential forms of knowledge. If its horizontal flexibility is limited, *Wissenschaft*, which can encompass the humanities, faces problems in its vertical extensions into periods before the creation of modern educational institutions. Both are teleological concepts, and neither works very well as a description of the massive quantities of recent inquiries into the practices of knowledge making in ancient, medieval, early modern, non-western, amateur and craft contexts that many historians have recently pursued, and many historians of science, like Daston, have grown weary of fighting about whether or not alchemy or Aztec mapmaking can be called sciences (they are certainly not *Wissenschaften*) and are ready to embrace a wider terminology.¹² Another internal impetus comes from the desire to fix some problems in Foucauldian *histoire de savoir* by accentuating the practices of knowledge-making, circulation, and feedback, to incorporate a wider and more diverse set of knowers, and to recover lost or suppressed knowledges.

From Whence Does it Come?

In the current literature, there is also little debate about which fields, and generally speaking, which authors, have played a formative role in the articulation of the approach. Important predecessors are recognized in Foucault, of course, and in the Polish philosopher of science Ludwik Fleck, whose work on scientific facts

¹⁰ Lässig and Steinberg 2017.

¹¹ See, among other titles, Gitelman 2014.

¹² Daston 2017, 142.

and the thought collectives which create them has become required reading in the field.¹³ Debts are acknowledged to Bruno Latour, Pierre Bourdieu, Niklas Luhmann, Hans-Jörg Rheinberger, Simon Schaffer, and Steven Shapin; much more credit ought to be given to Berlin's MPIWG, and especially to Daston, who has been promoting, and practicing, innovation in the history of science since the early 1990s. Peter Burke, in his recent exploration of the history of knowledge, acknowledges ancestors from Francis Bacon to Karl Mannheim, to the futurologist Peter Drucker; he also remarks on the contributions from scholars of colonial knowledge, such as Bernard Cohn, author of *Colonialism and its Fields of Knowledge* (1996), and James C. Scott, *Seeing Like a State* (1998). Lässig also casts a wide net, including scholars writing on the history of technology, transnational history, and the history of tacit knowledge.¹⁴ For those, like myself, interested in the history of the human sciences, the work of Anthony Grafton and his many Princeton students, in Italy Glenn Most, and, in Germany, that of Helmut Zedelmaier and Martin Mulsow has been foundational.¹⁵ Recent work by scholars trained in the history of science on the history of information sciences and data-mining also deserves to be mentioned.¹⁶ Many, perhaps most, of these scholars would hesitate to call themselves historians of knowledge, and might prefer historians of science or intellectual historians. But their work has unquestionably provided the foundations from which the *Geschichte des Wissens'* various villages arise.

One of the under-appreciated predecessors of the field (and Burke's starting point) must be an older form of social history, which inquired into what the "little people" knew about how to make silk or evade taxes.¹⁷ In *The Return of Martin Guerre* (1983), Natalie Davis explicitly juxtaposed the thought- and life-worlds of the peasant Bertrande de Rols and that of the well-educated judge, Jean de Coras, and sought to understand what each knew about the guilt of the impostor Arnaud du Til; the book concludes with a speculative chapter about what Bertrande and Arnaud could have known about Protestantism in late sixteenth-century Artigat. Davis's *Fiction in the Archives* (1987) explored the narrative strategies deployed by prisoners seeking royal pardons, illustrating how much they knew about the law and its loopholes, and linking these in turn to narratives constructed by well-known Renaissance writers. As early as 1971, Keith Thomas outlined the enormous range of magical practices pursued by sixteenth- and seventeenth-century English villagers, many of them not terribly distant from the emerging sciences; Laurel Thatcher's beautiful *A Midwife's Tale* (1990) treats, centrally, the obstetric practices of the eighteenth-century New England midwife Martha Ballard. Here we already have non-elite knowers at work, as well as dis-

¹³ Fleck 1979 (originally published in German, in 1935).

¹⁴ Burke 2015, 2–13. Lässig 2016.

¹⁵ Just to cite three of the major texts here produced by these prolific authors: Grafton 2007; Most and Grafton 2016; Zedelmaier 2015; Mulsow 2012.

¹⁶ For two excellent examples, see Jones 2017 and Rosenberg 2017.

¹⁷ For the editors of Greer et al. 2013 *Wissensgeschichte* is the result of the incorporation of cultural and social history into the history of science, and the most important takeaway is that "Science requires a social-cultural foundation." The emphasis in this volume, focused on early modern sciences, is to document the interwovenness of elite and popular science, and the fact that knowledge is no one way street. Greer et al. 2013, 11, 17. The Lund volume does acknowledge Davis and Darnton; Östling 2018, 11.

cussions of the circulation and content of knowledges, and epistemologically challenging questions such as: how do imposters muster sufficient knowledge to succeed? It is interesting that so few historians of knowledge recognize, or perhaps feel, the deep debt we all owe to older forms of social history.

Another, more easily recognizable ancestor, but strangely one little discussed, is what Robert Darnton called long ago “the social history of ideas,” which began in the study of eighteenth-century France (with the aim of explaining the intellectual and cultural origins of the French Revolution) but quickly expanded into the history of books and reading practices. The pathbreaking work of Daniel Mornet, Elizabeth Eisenstein, Darnton, and Roger Chartier ushered in a major movement in cultural and intellectual history which taught us to pay attention to the circulation of ideas and to look for changes in mentalités that encompassed a much wider range of persons than the philosophers.¹⁸ Darnton’s *Business of Enlightenment* (on the publication history of the French *Encyclopaedia*) and his essays on the circulation of the news in France (by song, by scandalous poems, by oral exchanges in certain locations), to mention just two of his many works, could certainly today be hailed as forerunners of the history of knowledge.¹⁹ There are now hundreds of books on books, on publishers, on reading, on manuscripts, on marginalia. The output in this field has been so extensive that there is now a *Cambridge Companion to the History of the Book* (ed. Leslie Howsam, 2014), a sure sign that a topic has gained general currency and respect.²⁰

But that older social history generally came in regional or nation-state centered chunks, and was often linked to larger stories about the origins of popular revolts or movements, or to the history of workers and the working class, and those things went out of fashion some time ago. The *Geschichte des Wissens* seems to want to tell more global stories and to begin not with the little people and their problems but from the discourses or networks which constituted or distributed and transformed some sort of knowledge; the knowledges it studies may be defined by a particular keyword such as “pardons,” or by practices such as embroidering textiles. Although the intent is to expand the universe of knowledge-producers, the aim is not to know more about the little people and their worlds but about knowledge itself. In some ways this may represent an advance, according to our lights, as it decouples social history from nation-state boxes, and links the classes in a common story. But as I will describe more fully below, it runs the risk of focusing our interest in the people of the past only on what they knew, and in my view, that is not necessarily the best way to interpret and appreciate them. Ulrich’s *A Midwife’s Tale* does tell us a great deal about the expertise of the eighteenth-century midwife, but I would hate for this beautiful book to be framed around Martha Ballard’s *knowledge* rather than her extraordinary, ordinary, *life*. There are many more things that make up our humanity, and our histories, than what we know and how we know it.

¹⁸ To cite just a few important texts: Eisenstein 1979; Mornet 1933; Chartier 1994. Two of Darnton’s many books and essays are cited in the next note.

¹⁹ Darnton 1987; Darnton 2000.

²⁰ To cite just one recent and exciting contribution: Brophy 2017.

I have left for last the relationship between the *Geschichte des Wissens* and my own fields, cultural and intellectual history, which have, themselves, never had perfect camaraderie or clear boundaries. This border has perhaps always been more clearly policed in our teaching than in our research. When I studied “intellectual history” as an undergrad at UC Berkeley in the early 1980s, what my great teacher Martin Jay presented to us was a thinly contextualized history of great thinkers, of innovative writers, painters, and composers, of masterpieces and breakthrough books. At the time, there was a pretty clear canon of thinkers, almost all of them European and male and most of them somehow related to Marx. The emphasis was on the ideas and not on the ways in which knowledge was transmitted or used. I love this form of intellectual history still, and that is mostly what I teach, in part because it invites close readings of primary texts, the quintessentially humanistic means of thinking with other people, past and present. We had our canon debates, but those, I think, have largely ended, and no one objects to inclusion of new authors, so long as the material is rich and worth reading closely. Unlike the historians of science, we do not have to battle with a teleological narrative, which as Daston movingly puts it, “we know is gravely flawed if not outright false,”²¹ and yet have no narrative to put in its place. With a wider ambit and no such constraining word such as ‘science,’ we are free to choose our classics according to the most general of Italo Calvino’s definitions: that they “ha[ve] never finished saying what [they] have to say.”²²

Cultural history, on the other hand, was a relatively new field in the 1980s, and typically one pursued in national chunks, if we think of the work of Lynn Hunt, for example, or Lawrence Levine.²³ Its parent discipline was social, and not intellectual history, but for a time it had to struggle with both fields to gain credibility and purchase. With respect to social history it had to show that language and symbolism was a crucial part of class formation and politics; it accomplished this so successfully that in the US we now have many more cultural historians than political or social varieties. With respect to intellectual history, one could say that objections largely came from efforts to add non-canonical authors (including women and non-Europeans) into reading lists, or to make linkages between what Levine called “highbrow” and “lowbrow” cultures. The social history of ideas helped to get us past these quarrels, as did Foucauldian discourse theory, which helped frame so many inquiries and link cultural phenomena (including various forms of *savoir*) to power. Foucauldian archaeologies of knowledge have contributed perhaps more than anything else to the blurring of intellectual and cultural histories, especially for scholars such as myself who focus on institutions of knowledge and mediocre minds. Today most of my colleagues are not, I think, particularly fussed about whether a book falls in intellectual or cultural history, as long as the author’s method fits his or her argumentative aims, delving more deeply into context when the goals are wider cultural explanations, and attending more close-

²¹ Daston 2017, 149.

²² Calvino 1986.

²³ Hunt 1989; Levine 1988.

ly to textual interpretation when the object is to explore a particular line of thought or individual creator in depth.²⁴

To call oneself a cultural or intellectual historian today, then, has a great deal to do with what one teaches, and the kind of analysis one performs, whether or not one dwells on the specific articulations of ideas or on their context, spread, and impact. Neither of these fields, I think, is as focused on knowledge and its circulation as are historians of science or of the media; they have plenty of other subjects that attract their attention, including the history of consumption (mainly a topic for cultural historians) and the history of the idea of human rights (especially pursued by persons who think of themselves as intellectual historians). Neither of these subjects lends itself in obvious (or perhaps better sensible) ways to being rendered as a history of knowledge, and I think many scholars at work in these fields will need convincing that the *Geschichte des Wissens* helps them see the past in new and interesting ways. Of the *Geschichte des Wissens*, they will want to know: what are its advantages, and what are its costs?

The Advantages of a *Geschichte des Wissens* Approach

On its website, the Zürich research group helpfully spells out some of the general questions which practitioners in the field seek to answer:

Was ist Wissen?
Woher kommt unser Wissen?
Wie entwickelt sich Wissen weiter?
Wie erhält Wissen Gültigkeit?
Wie wird Wissen vermittelt?
Wie wird Wissen angewendet?
Wie zirkuliert Wissen?
Wie verfällt Wissen?
... nicht zuletzt: Was wissen wir nicht?²⁵
Und was können wir nicht wissen?

Paradoxically, the first of these questions strikes me as the crucial question and the one historians will never find agreement in answering. This has already come out in the debate. For pragmatic reasons that he does not really defend, Sarasin uses a tripartite, essentially Kantian structure to differentiate knowledge from religion and art, defining the proper content of the former as “systems of knowledge, or orderings of hypotheses and theories that tend to be reason-based and empirically testable.”²⁶ Peter Burke, the early modernist, by contrast, says that scholars

²⁴ As Sarah Igo—herself an accomplished crosser of these borders—has recently argued, intellectual historians should simply adopt a “free range” view of their sources: corral the evidence you need to answer your questions, and forego the agonies of deciding whether or not they do or should belong to some theoretical canon of higher ideas. Igo 2017.

²⁵ “Wissen?!” <https://www.zgw.ethz.ch/de/portrait.html>.

²⁶ Sarasin 2011, 165. Lässig attempts a similar definition in her 2016 essay, arguing that “Knowledge is widely taken to stand for evidence, reliability, and demonstrability as well as for rationality and truth. Reliance on evidence distinguishes knowledge from other forms of comprehension such as belief and feeling. Nonetheless,” she adds, “the boundaries between these forms of comprehending the world are fluid.” Lässig 2016, 39.

would be “well advised to extend the concept of knowledge to include whatever the individuals and groups they are studying consider to be knowledge.”²⁷ As Martin Mulso—also an early modern specialist—shows, however, this does not solve the problem, as some things that historical actors did not want to count (such as the know-how of midwives or potters) we do want to include, while some things they considered exalted forms of knowing (such as alchemy or astrological prognostication) we now believe to be self-deceptions or superstitious nonsense.²⁸ Moreover, various people at the same time often hold differing beliefs about what knowledge is, or which forms are most important; it strikes me, too, that a prince surely valued the master of the hunt’s knowledge of dogs at day-break, but at lunchtime was more keen on the cook’s pastry-making expertise. So what is the real subject of the history of knowledge? The key question, as Daston points out, is: “is there anything that the history of knowledge is *not* about?”²⁹

But historians are notoriously good at dodging philosophical questions, and if we can get away with definitions that work for the particular contexts we are tackling, perhaps we can fudge this question, or settle, as Daston suggests, for investigating “epistemological hierarchies” characteristic of specific times and places.³⁰ We might then go on to wrestling with the other queries on the Zürich list, upon which we can get more purchase, questions about where certain knowledges come from, how they circulate and gain credibility, and how they are used. Of course, numerous historians have also wandered through these sometimes mysterious groves.

We have, to offer just a few examples from modern European history, Andreas Daum’s and Lynn Nyhart’s books about popular science in the *Kaiserreich*, and Peter Bowler’s important books about the reception, and non-reception, of Darwin.³¹ We have Darnton’s *Business of Enlightenment* and James Secord’s exceptional study of the reception of *The Vestiges of Natural Creation*. Practically all the histories of the disciplines written from the 1980s and on discuss the credentialing and use of certain forms of knowledge, about insanity, about classical antiquity, about natural foods.³² Many of these histories also narrate the process by which older forms of knowledge are discredited. I remember quite clearly a question Robert Proctor posed in the course of a presentation about the tobacco industry’s long denial of smoking’s hazardous effects he asked us to consider: why don’t we know some things? Someone, he argued there and in his subsequent book on the subject, might be interested in keeping us from knowing.³³ If we go back to Keith Thomas’ now venerable *Religion and the Decline of Magic*, for example, we have an exemplary study of how one form of knowledge—magic—was replaced by religious orthodoxies, imposed by the post-Reformation clergy, and on the other

²⁷ Burke 2015, 7.

²⁸ Mulso 2019, 161.

²⁹ Daston 2019, 174.

³⁰ Daston 2019, 176.

³¹ Daum 2002; Nyhart 2009; Bowler 1988.

³² Nye 1984; Marchand 1996; Treitel 2017.

³³ This paper marked an early stage in the research that would eventually lead to Proctor 2012 and Proctor and Schiebinger 2008.

hand, we have books about the persistence of esoteric or outdated forms of knowledge.³⁴ We have not neglected to study non-traditional knowers, such as Carlo Ginzburg's Menocchio or Laurel Thatcher Ulrich's Martha Ballard. And we know a good deal about the spread of things that at least we label from the first as false forms of knowledge, in books that treat the making and circulation of propaganda, conspiracy theories, pseudo-science, or ideology.³⁵ There is a lot that we already know about knowledge, its makers, its spread.

So what does the *Geschichte des Wissens* add to this? Do we need a new term for something many of us have already been doing, for years and years? It does seem to me that there is something at stake in the slight change in phrasing, from the history of ideas or the history of discourses or "images of..." to the history of knowledge; this change does do something at least linguistically to upgrade what we are writing about, to give it a little more body and grounding in—that dangerous term—reality, or at least, various peoples' realities. Perhaps this is to take a further step away from deconstructionism and Foucault and to assert more actively that people have not just imagined or spoken, but actually gone through processes of learning and experiencing which allowed them to *know* things, even if eventually those knowledges were superceded, in complete, biased, or lost. Even though I have used the terminology, I have always thought that to describe, for example, an Assyriologists' knowledge of the ancient Near East as an *image* or a *discourse* made light of the density and difficulty of the content. To discuss the history of knowledge-making rather than the history of ideas adds a dynamic and fluid dimension to studies of the mental universes of past actors, and gives us both new inspiration and new tools to understand how people arrive at their convictions and why some, eventually, change their minds.

This approach, of course, builds on discussions of the practices of knowing that have informed some of the most interesting work in the last couple of decades, particularly in the history of science, but also in the history of scholarship and literature more generally. We have learned a great deal from focusing not just on what Gabriel Harvey read, but how he read it, to invoke a breakthrough article in the field.³⁶ The history of science has been transformed by works which detail how laboratories actually function, what instruments are used, how experiments end.³⁷ But new work emphasizing craft knowledges and embodied knowledge adds to the concreteness of our work in the history of ideas, and promises to help us revitalize some fields of inquiry that have grown stale. This could be one way, for example, to revive the "history of disciplines," which, as I noted a few years ago, otherwise has begun to feel outdated and repetitive.³⁸ To take another example, the *MPIWG* project led by Christine von Oertzen and Sebastian Felten on bureaucratic knowledge transforms a boring subject by focusing on what one might call the information sciences of the past. This (comparative) study of how states know us and know themselves would not work so well as a history of the

³⁴ Stolzenberg 2015; Kidd 2016.

³⁵ For example, Herf 2008; Gordin 2012.

³⁶ Grafton and Jardine 1990.

³⁷ Pickering 2010; Galison 2011.

³⁸ Marchand 2013.

image of the subject/citizen, and adds a helpful vocabulary to further some of the insights of Max Weber, or more recently and critically, of James Scott's *Seeing Like a State*.³⁹

Despite the attention devoted to circulation and reception by some scholars (cited above), it is also the case that we could use more emphasis on how ideas (or knowledges, or images) circulate and gain (or fail to gain) currency and credibility. Quite a long time ago, James Secord called for this in a keynote lecture titled "Knowledge in Transit," pointing out that all too many historians of science (and intellectual historians, I am afraid) assume that ideas gain currency because they are true, or more true than previous claims on the subject.⁴⁰ But this is certainly not historically the case, and we have known bad ideas to chase out better ones in many cases, with Nazi race theory providing an obvious example. There are also numerous cases of ideas *before their time*, as in the case of Nichola Tesla's plans to effect wireless communication, or those which endured despite their exposure as false or flawed, as in the case of scholars who continued to believe in the primeval existence of Hermes Trismegistus centuries after Isaac Casaubon had showed that his quasi-monotheistic texts could not possibly have been written before the 2nd century AD.⁴¹ But perhaps these later believers were not wholly wrong either, as many found grounds to claim that the *content* of the ideas might, perhaps, have been much older than Casaubon's dating mechanisms proclaimed.⁴² In any event, an informal polling of students in natural science courses (or even of their professors) would surely show that most still believe that the truth will out. We have work to do, still, in showing that this has not, historically, always been the case.

It is also clear that we could be more inclusive in the body of knowers and knowledge we usually study, especially in an age in which social history is in such poor odor. A friend of mine is writing a history of 'wisdom' in America, and including a wide range of wisdom-forms Americans have turned to, from high philosophy to yoga, from female healers to pop psychologists, from cult-novels to drugs.⁴³ I find this an exciting project, both because the author has a strong background in both reception studies and in American cultural history, and because she has spent many years amassing sources and carefully selecting her actors and themes. Lässig and Steinberg are right that "The category of knowledge can function as the chemical reagent that renders legible a history written in invisible ink, a history of overlooked alternatives and abandoned paths. The history of knowledge does not offer a naïve history of progress; rather, it draws our attention to historical forms of secret, impeded, and ignored, to knowledge that was revalued or delegitimized, to knowledge that was stripped of its relevance or declared non-knowledge."⁴⁴ Some older social and cultural histories which focused, for example, on the agency and resourcefulness of slaves, women, peasants, and workers

³⁹ Scott 1998. The first installment of this project will be published by Sebastian Felten and Christine von Oertzen in the inaugural issue of *Journal for the History of Knowledge* in 2020.

⁴⁰ Secord 2004.

⁴¹ See here Stoltzenberg 2015.

⁴² See Marchand 2003, 151–58.

⁴³ Jennifer Ratner-Rosenhagen, professor of history at the University of Wisconsin, kindly allowed me to mention her project, still at the research stage.

⁴⁴ Lässig and Steinberg 2017, 320.

did a bit of this, and historians of science have long been interested in the ways in which female assistants and colonial informants or collectors have made the inventions and discoveries of great men happen. Intellectual historians could do more of this; too often we simply persuaded ourselves that the sources did not exist, and failed to look for the work of what Ann Blair has called “hidden hands.” Martin Mulsow’s fascinating *Prekäres Wissen* offers a brilliant example of what can be achieved by the historian’s patient excavation of knowledge that was lost, partly because it was too dangerous or esoteric to circulate openly.⁴⁵ In a series of loosely related chapters, Mulsow uncovers underground networks of artists, antiquarians, scholars, libertines, and cranks who found ways to share their esoteric and sometimes dangerous ideas by way of symbolic, illicit, or samizdat communications; that Mulsow was, in the end, able to find out a great deal about his often shadowy characters is documented in the nearly 150 pages of footnotes that follow the text. In other contexts, however, circumstances will have conspired to wipe out traces of those hands, and we must be careful to recognize the limits of our knowledge, and the limits non-elite persons faced in obtaining the access to books, institutions, and patronage that would have made possible their participation in networks of knowers.

Finally, the *Geschichte des Wissens* lends itself much better than does traditional history of science or intellectual history to digitization. The digital humanities seem to be all the rage these days, and it is clear that there are some fascinating things historians can learn from crunching, combining, and mapping data in this way. Edward Ayers’ maps showing the migrations of slaves and slave owners in the antebellum South offer startling insights into the patterns of settlement that have had such a profound impact on the land, on race relations, on the economy, and on political life, down to the present day.⁴⁶ The Stanford “Mapping the Republic of Letters” project offers fascinating data on Grand Tour travelers and correspondence networks, allowing, once again, unexpected patterns to emerge that might spark new inquiries.⁴⁷ Google N-grams and Bookworm, as well as image and musical search engines make possible as never before the counting of citations and the study of receptions, imitations, and reproductions. There are hundreds, if not thousands, of such projects now underway, to digitize correspondence and map networks, all of which dovetail nicely with *Wissensgeschichte*. This means that source material for students is now plentiful and accessible, indeed in such abundance that one despairs of feeling that old confidence that one has covered all one’s bases. Digitization of this material is already employing many humanists—of course knowledge of foreign languages and historical training is necessary to processes of selection and of building useful databases—and the fact that many of these services (not all) are free makes for further democratization of research. Students without travel funds can now do a great deal more of their work from their

⁴⁵ Mulsow 2012.

⁴⁶ The “Forced Migration of Enslaved People” (<http://dsl.richmond.edu/forcedmigration.html>) is only one among the many fascinating projects in American history hosted by The Digital Scholarship Lab, which Ayers founded at the University of Richmond.

⁴⁷ See the website: <http://republicofletters.stanford.edu/>. The team’s excellent essay about the project, however, admits that it is not yet clear whether or not there will be real intellectual gains from these extremely time-consuming projects. Ceserani et al. 2017.

couches with an inexpensive laptop than ever before. We will never be able to retrieve, much less explain, all the knowledges of our ancestors, and some things, such as regional languages, are being lost more rapidly than ever. But the technological potential for inclusiveness and comparative studies has never been greater, and it increases every day.

What are the Dangers?

As we have seen, everyone who writes about the practice of *Wissensgeschichte* notes that cultivators of these groves do not have a clear and consistent definition of what knowledge is; Daston rightly warns that “Its flexibility could easily turn rubbery.”⁴⁸ I see two dangers here, one in the apparent incoherence of the field of inquiry—in part driven by the wide diversity of its sources—and the other in the extreme relativism thinking along these lines invites. At present, it seems, the *knowledge* in the history of knowledge functions chiefly as a substitute for the too-restrictive and exclusionary *science*; this is in many ways a commendable and timely move, but the bagginess of *knowledge* has corresponding dangers. As it stands at present, the field seems eager to encompass Newton and the chicken-breeders of Bali, Egyptology and advertising executives (who do, after all, know more about us than we about ourselves), witch-smelling and Erasmus’ New Testament. It is not that any of these things are implausible topics, but the varieties of knowing are so incommensurable and the sources for such inquiries are so diverse that it is hard to see how specialists could talk to one another, or put together a sensible lecture course. A field should contain persons who can learn from and, importantly, are able to *check* one another’s work against the sources and other secondary literature. Will such a thing be possible for scholars of *the history of knowledge*?

Another problem, in my view, is that “rubbery” quality invites us to suggest that all knowledges are equally feasible and all knowers have equally valid claims to make. If it is true that science needs historicization, and historians of science to avoid teleological and triumphalist stories, it also seems to me wrongheaded to suggest that we have not learned at least some things over time. It might well be that better ideas lost out, or that lives were happier when we huddled around fireplaces, when we dreamed of Egyptian symbols concealing the secrets of the universe, when we did not have pollsters calling us constantly on the telephone. But it is obvious to our students, and to ourselves, that we can better treat diseases and more efficiently heat our homes today than in previous centuries. Scholars after Champollion are better able to read hieroglyphics; polling techniques are more accurate than they used to be. Even, or especially, good liberal parents tell their children there are no real witches, ghosts, or miracles. Thus it seems to me a far better idea to rewrite the history of the *soi-disant* Scientific Revolution than to scrap it in favor of a course on knowledges of the seventeenth century which might end up as a random and disconnected set of snapshots. History as lived is like that, certainly, but it is our job as history writers to find coherences and patterns of change over time. We will know more, and differently, in the future, to

⁴⁸ Daston 2017, 143; also Lässig and Steinberg 2017, 319.

be sure, and we also must recognize that there is a very great deal of knowledge that we have *lost*. But scrapping the whole modern narrative—including the real advances human societies have made especially since the seventeenth century in understanding and manipulating nature, texts, and our bodies—is, in my view, neither necessary, sensible, nor factually defensible.

Beyond the problems of rubberiness and full-on relativism, I fear that *Wissensgeschichte* could degenerate into a purely positivist project of unselective mapping of knowledge networks, something that tends to flatten out the actors and knowledges of the past, and never decide which individuals or moments should be deemed most significant. Digitization, of course, necessitates and exacerbates this tendency to treat everyone and everything as a node in a network, whose personal idiosyncrasies do not matter very much; what matters are the keywords they utter, the density of their correspondents, the quantity of their outputs. It is laudable to look for patterns, of course, and digital and quantitative sources can sometimes show us that what we thought was new, or important, was in fact old hat or trivial (or vice versa). But we often seem to forget that *we* pick the keywords, and that a map is not an explanation, nor a story about people (or a very thin one). We could look at the new digital projects as the equivalent of nineteenth-century dictionaries or compendia, big science projects that yielded rich materials for the next generations of scholars to mine. But, especially in an era in which there is often much more money for teams (sadly often of poorly paid postdocs) to digitize sources than for a single scholar to sit in a room and read and digest them, we need to guard ourselves against devolving into mapmakers who never dare to discuss what the map is for. *Before* we invest time and treasure into such projects we need to ask ourselves: What is worth knowing about what was known? Or, at least, what important story does any particular excavation of past knowledge tell?

We need to worry about what is worth knowing in part for the sake of our graduate students and successors. Just as it was wrong to tell them—as many an advisor used to do—that it was critical to study only great men, it is also wrong to tell them that they can study anything at all, and provide no guidance on how to locate and limit the source materials. Some topics are trivial (what 10-year-old S. Marchand knew about geometry); some have no sources (again, what S. Marchand knew about geometry, as even I have forgotten); some are too large (what all Americans knew about geometry in 1972). Klaus Hentschel raises this problem as one, too, of leading students into niche specializations that make it difficult for them to teach general subjects and thus, in the German case especially, leave them unprepared for full professorships.⁴⁹ Students will need to convince prospective colleagues, journal editors, funding agencies, book publishers, and readers—some of them not historians of knowledge—that their work is valuable and makes a real contribution to historical studies more generally. Too much insiders' baseball (knowledge about knowledge itself) strikes me as likely to decouple our inquiries from bigger *historical* questions, such as the origins of the Reformation or the French Revolution, and to distance them from the empathy for real people and their rich, strange, tragic or triumphant lives that suffuses the

⁴⁹ Hentschel 2018, 368.

works of Davis, Darnton, and Ulrich. Some of us may want to know a bit about knowledge, but I believe that most historians, and certainly most of our students and readers, chiefly want to know why people do things and how big changes happen. Especially given today's job market and publishers' desires to print books with greater, rather than smaller, readerships it is worth carefully considering how much history of knowledge we cultivate.

Another very tricky issue, and one upon which many readers will disagree, is the question of the canon. Some will say this no longer exists, but a brief examination of the works and authors regularly mentioned by the practitioners of *Wissensgeschichte* shows that there is at least a methodological canon that neophytes need to know, which would include, at the least: Michel Foucault, Bruno Latour, Thomas Kuhn, Steven Shapin and Simon Schaffer, Clifford Geertz, Niklas Luhmann, Peter Burke, Ludwik Fleck. It also seems to me that it would be very hard for a young scholar in this field to do without some kind of training in the canon of either intellectual history (for modern historians, including Thomas Hobbes, John Locke, J.-J. Rousseau, Voltaire, Edmund Burke, Mary Wollstonecraft, G.W.F. Hegel, Arthur Schopenhauer, Karl Marx, J. S. Mill, Friedrich Nietzsche...) or history of science (Copernicus, René Descartes, Francis Bacon, Galileo Galilei, Robert Boyle, G. W. Leibniz, Isaac Newton, Antoine Lavoisier, Georges Cuvier, Charles Lyell, Charles Darwin...), or both. Without such knowledge, one could make embarrassing mistakes, or worse, simply not be able to participate in the conversation.

Before one studies readers and readership, doesn't one have to know about the writers and the texts? Peter Burke himself notes that it would be just as one sided to claim that a few great thinkers caused the scientific revolution or the Enlightenment as to say that these transformations were "no more than the surfacing into visibility (and more especially into print), of certain kinds of popular or practical knowledge and their legitimation by some academic establishments."⁵⁰ This is a bit of a backhanded acknowledgment of the greater importance of some knowers, but it is that, after all. Even as we widen our understanding of the circulation of knowledge, we cannot forget that it was a specific person, with unique and carefully honed skills, who designed the telescope, which showed the moon to be bumpy (Galileo), or who figured out how to isolate radioactive isotopes (Marie Curie). They almost certainly had help, and we should acknowledge that, as well as contextualize their discoveries. But to suggest that their knowledge was equally important to that of their contemporaries or only significant because it was widely circulated and institutionalized strikes me as a fashionable, deconstructionist claim that only works for those who already knew that Galileo and Curie were significant individuals. Is it right to teach our students only this rather mean-spirited critique, and leave them with no positive narrative to work with, or against?

I am all for expanding the canon, but not at the expense of forgetting that historical circumstances have never allowed for perfect meritocracy in the world of knowledge and, at the same time, that not all knowers are equally vital to know about or equally available for us to know. Women, slaves, members of minority groups, and men of the lower orders simply have never had the same sorts of op-

⁵⁰ Burke 2015, 14–15.

portunities to be knowledge-makers (and especially makers of abstract or academic knowledge) as wealthy, white men. But even white men did not think the same way, or contribute equally to knowledge's many mansions. Contingencies and context matter a great deal, of course, but so too do individual gifts and hard work: though close friends and collaborators, Marx and Engels accomplished different things, and Engels himself would have agreed that Marx had the more original and rigorous mind. Source bases can be revelatory as well as problematic: sometimes there is no information about someone who did have extensive and important knowledge of something (say, botany), but there is also a reason for our extensive source base with respect to the work and lives of Linnaeus and Joseph Banks. In their social network analysis of eighteenth-century botanists, René Sigrist and Eric D. Widmer handled the hierarchy problem by dividing scholars into 'major,' 'second-rank,' and 'minor scholars and amateurs.'⁵¹ This might work for network analysis—in part because one will know to study the persons with the densest network of correspondents to understand how the system worked. But it won't necessarily tell us whose ideas were more important or novel, in the longer or shorter run. We are going to have to make some judgments about quality of thought and/or innovation in thinking, or simply lose hope of identifying new ideas, and describing how and why people arrive at them.

The final worry I have about the *Geschichte des Wissens* is one that I have carried with me since my days of deep involvement with the work of Foucault, and with the History of Human Sciences workshop at the *University of Chicago* (roughly 1985–91). I fear that *Wissensgeschichte* will continue to insist upon, and perhaps aggravate, the tendency among intellectual historians and historians of science to obliterate authorship in favor of generalized discourses and refuse to investigate individual motivations and aims; a further danger is that knowledge is tied to keywords and deep contextualization is lost. For some projects, such as the history of bureaucratic knowledge, for example, it does not really matter who produced which records; the point is to show how the bureaucracy created the rules we live by, to rationalize and standardize procedures so that bureaucrats knew what they were supposed to know, and citizens knew how to supply (or suppress) that information. This seems to me a case in which the *Geschichte des Wissens* works wonderfully; though even here, I want to know not just how the bureaucracy set its rules, but *why* officials wanted to know, for example, how many rabbits were being raised in the Limousin. When it comes to projects that involve digitalization and the tracking of networks, I want to know not just how many letters were exchanged, but *why* so many Englishmen in particular wanted to acquire botanical knowledge at the end of the eighteenth century. I learned a great deal about this from Andrea Wulf's lovely *The Brother Gardeners*, which is about the international exchange of plants and ideas, but has its center of gravity in English gardens, and offers extensive discussions of both Joseph Banks and the lesser-known horticulturalists John Bartram, Peter Collinson, and Philip Miller.⁵² We are wrong to condemn the genre of biography, as the best ones by no means are hagiographies, or leave out lovers and minor interlocutors. Some of them count as my

⁵¹ Sigrist and Widmer 2011.

⁵² Wulf 2009.

favorite works in intellectual history: Maurice Cranston's *Jean-Jacques* (and subsequent volumes); Stefan Rebenich's *Theodor Mommsen: Eine Biographie*; Lisbet Korner's *Linnaeus: Nature and Nation*; Rüdiger Safranski's *Schopenhauer and the Wild Years of Philosophy*; Mary Beard's *The Invention of Jane Harrison*, Lucy Hughes-Hallett, *Gabriele D'Annunzio: Poet, Seducer, and Preacher of War*; Joseph Frank's monumental *Dostoevsky* (5 vols.), J.G.A. Pocock's even more massive *Gibbonwerk*. I am a bit concerned that in tracing circulation and cataloging practices, in seeking hidden hands and sleuthing out social networks, we will not give ourselves sufficient time to do as Wulf and our biographers have done, to get to know our knowers as *people*, and not just as so many transformers supplying impulses to Knowledge's seemingly endless power grid.

Having invoked the "p" word I would like to close this section with some thoughts about the great Foucauldian take-away, that knowledge is power—of a sort, or better, of different sorts. This insight has sparked some of the most exciting work in the histories of the sciences, of governance, and of gender relations in the past decades, and it makes intuitive sense in the world of Google and amazon.com. It provided a useful critique of systems of knowledge whose institutionalization and unexamined reproduction silently subjugated some people—those deemed mad, abnormal, backward, and so forth—even where the intent of the knowers was to help them. But there is also something that rings, or should ring, false to scholars in this: do we really believe that we too simply are part of a discourse whose rules dictate, more or less, what we say, and in which curiosity, creativity, and compassion are mere illusions, while only power is real? For Foucault, it would be immaterial if I loved my students or despised them, if I wanted to use my knowledge to make the pharmaceutical company I worked for (and myself) rich, or to save African children from dying of cholera. All that really matters for Edward Said is that westerners (whatever that means) claim to know things about the Orient—not whether or not they want to understand others or to exploit them; the only correct moral stance seems to be to stick to knowing one's own kind (again, whatever that might mean), or even knowing nothing at all.⁵³ Is that really what we believe, about our own knowledge, about our own lives as knowers? Is that what we want to teach the next generation about the pursuit of knowledge? If not, then we ought not to continue to write our histories of knowledge in this way, and seek a better and more honest way forward. The *Geschichte des Wissens* could be the inspiration we need to do that.

Whither Wissensgeschichte?

At the end of the day, I find it rather hard to decide if I am a practitioner of *Wissensgeschichte* or not, or only some of the time. I certainly can't subscribe to Sarasin's definition, or agree that it would be a good idea to replace Kocka's concept of the social with Sarasin's of the circulation of knowledge; there are hierarchical orderings and forms of power in society that have little to do with knowledge, as it is ordinarily construed: birth, inherited wealth and property, moral authority, canons of beauty, customs, religious convictions (which *can* be separated from

⁵³ I am referring, of course, to Said 1978.

theological knowledges), love, hatred, shame. Other writers, such as Johann Östling and Simone Lässig, have a more capacious definition, as we have seen, but I still find the title “historian of knowledge” not entirely to my taste, as it seems to me to imply an emphasis on the how and the what, and not the who and the why in idea-making. So perhaps I will stick with the history of ideas after all; but I do want to be in conversation with *Wissensgeschichte*, and I hope that at least sometimes I will be invited to fish in its waters and sail with its fleet.

For historians of science, however, the question of whether or not to rechristen itself and leave science behind seems a more urgent, existential question. Practitioners, as we have seen, recognize that science (or *Wissenschaft*) is teleological and exclusionary, but if the term goes away, they need some other way to describe the content of their studies and the purposes of their institutions. “We need to be able to answer the question, what holds our discipline together, and where the borders lie,” writes Kärin Nickelsen. “...The history of science has permeable boundaries....But it ought to tend and defend its disciplinary self-conception and its dossier of expertises, its societies, its journals, and not least its professorships; otherwise the history of science will disappear.”⁵⁴ Losing this discipline, which has so greatly inspired me, is a bit scary, but perhaps it is the outsider’s job to ask: *should* it disappear, and allow itself to be absorbed into a parental history of knowledge that might welcome in cultural and intellectual historians and media studies scholars as well?

One reason frequently given for *not* taking this route is that students and university administrations respect science (more, I fear, than knowledge); it is also the case that to understand the history of most sciences, one needs extensive, specialized training in the content-knowledge itself; a third, related, objection is that expanding into so many new realms waters down the field’s traditional focus on the natural sciences.⁵⁵ The first of these objections strikes me as true but not intellectually defensible.⁵⁶ The second is a red herring: to do good scholarship, one learns what one needs to know about the content of the knowledges, or ideas, one is studying in order to understand their logic. The technical complexity of scientific content has grown over time, but comprehending earlier and or non-Western content requires feats of erudition or contextualization that are no less challenging than understanding modern physics. The real problem, in the end, relates to point number three, but at least for American historians of science, relates less to research than, once again, to teaching. There is real value to teaching courses that focus chiefly on the kinds of knowledge we now value so highly, especially medicine, information technology, and the natural sciences, if only to explain what contingencies brought us here and how we might have once thought differently. But not all persons who know about other sorts of knowledge—i.e., myself—are

⁵⁴ Nickelsen 2018, 411.

⁵⁵ Hentschel 2018, 368–70.

⁵⁶ At the moment, there is another excellent reason for not terming oneself a historian of knowledge: as far as I know, there are no universities offering a palate of courses that such a specialist might teach, and prospective private employers will want to have well-defined credentials. This could, of course, change, and I can envision courses on the history of information sciences or a job listing for a specialist in the history of bio-medical knowledge. But we have to be careful not to disregard the job market, or our students might have to pay the price for our avant garde aspirations.

competent to teach such a course, in which there would surely be students with better math and biology backgrounds than mine. (It would be equally wrong for me to teach a course on American or Chinese history, or for a historian of science to try to teach a course on Islamic art.) A definition of the field as the “history of knowledge” would allow me to remove all the natural scientific content in favor of philologists or philosophers I *do* know about. That *would* water down the content and the rigor of the course and diminish its present-day usefulness and appeal. And that would be a loss.

I have, then, a more modest proposal, and that is for historians of science to consider adopting the title, “history of the sciences,” which preserves the Latin conception of *scientia*, understood as a kind of certainty backed by evidence, experiment, and/or rationalized procedures. The field might make a stronger case for the importance of its teaching mission to its identity, and ensure that whatever they focus on in their dissertations, its students are equipped to teach courses that do justice to the content of these forms of *scientia*, including the modern natural sciences. My further, more radical, suggestion is that rather than casting its collective lot into a parental field of “knowledge studies” that remains, for my taste, too vaguely defined, too formalistic in its method, and too Foucauldian in its assumptions about the relationships of knowledge and power, the history of the sciences strengthen its relationships with history proper.⁵⁷ I have often felt that in recent years, specialization in the history of science has so emphasized understanding the science that contextualization in larger historical movements has been given short shrift; this might be an opportunity for a renewal of conversations with garden-variety historians, to the benefit of both. This would mean that the governing category for inquiries into ancient Greek mathematics or twentieth-century biotechnology is neither knowledge nor science, but the past, explaining what humans have acted, thought, suffered, enjoyed and *why* they have done so. What is to be explained is not knowledge in and for itself, but human societies and lives, whose formation certainly has been shaped by the history of the sciences. All the previous aspects of the history of science can still be included, instruments, sociological and institutional structures, transmissions, etc., just as intellectual history retains the right to explain complex philosophies at length. We could, I think, all profit from such a reunion.

Of course, reuniting with historians will not solve all problems. Historians generally face many of the same challenges as do historians of the sciences, including specialization that makes it hard to talk to one another on the one hand and institutional pressures to give up national and linguistic foci on the other. We are encouraged to publish in quantity rather than with quality uppermost in mind, and have almost universally adopted the all-too-yielding phrase “that could be interesting.” We all need to think deeply about this problem, the problem of significance which I raised earlier in this essay. The reality is that all sorts of things *could* be interesting, but the category of “interesting” has been disconnected from that of “important,” for better and for worse. We are reluctant to dismiss any possible topic out of hand, as we have learned the hard way that canons of importance are

⁵⁷ See Mitchell Ash’s compelling argument for keeping history of science within history departments. Ash 2018, 329–332.

likely to be biased in favor of what is already known and believed by those who rule our roosts. But, as argued above, renouncing all judgments of possible significance and offering no guidance on what sources to use or how to use them—possibly, too, because our specializations diverge so widely—is also a cop-out. General historians, too, need to find some judicious means of drawing boundaries, and making sure that the research topics our students select are studiable, significant to more than a handful of potential readers, and studied with proper craft and care.

Of course, determining what is important is ever more difficult in a world in which we want to be inclusive, avoid value judgments, and give students their heads to choose topics that speak to them. But we cannot let the consumerist mentality prevail; we have to help them to choose wisely. I suggest that we ask of any potential project (in the history of Knowledge; similar questions can be asked of garden-variety historians) four questions: 1. Why is it important to know about this form of knowledge? 2. What are your sources? 3. Can you understand the ‘languages’ (whether Chinese, or mathematics, or data-mining) in which your texts or images are written? 4. What other questions (beyond understanding how knowledge works) will you be able to answer? To begin a project one should have a very clear logic for pursuing a particular topic, and be able to develop a case for its significance which will convince as large an audience as possible and intersect with wider questions historians have previously posed. This logic could include demonstrations that idea x or practice y had a powerful impact on an institution, a political decision-maker, or a recognized scholarly figure, or that x or y existed completely independently of these power grids, but was extremely widespread and shaped everyday lives. And then, even more importantly, one should have a very dense, rich, and original source base, whose language one can command, whether that source base consists of just one diary to work out from (as in the case of Laurel Ulrich’s *Midwife’s Tale*), or a vast set of East Asian “how to learn fast” manuals, cheat sheets, and answer keys, as Hansun Hsuing is showing in a fascinating book project.⁵⁸ If the logic is tenuous, the source base limited, or the physics rusty, we should tell students and colleagues to reframe, rethink, or change course. If the project seems to answer no other question than that of abstract knowledge-making, we must direct students to delve more deeply into particular contexts, where they might also address more general questions such as the origins of Italian fascism, the achievements of the American civil rights movement, the cultural plurality of Akbar’s court. In this way, we both retain a kind of pseudo-canonical repertoire of big, historical questions and innovative thinkers around whom networks of reference and institutional elaboration have formed,⁵⁹ and we allow new questions and subjects to arise from the archives, particularly in less-tilled fields such as non-western science and ideas, where we still have so much to find and to learn.

⁵⁸ Hansun Hsuing’s book project is titled *Learn Anything! Cheap Pedagogical Print and the Education of the Modern World*.

⁵⁹ Lisa Malich has emphasized the importance of institutionalization as a means of avoiding anecdotalism. Malich 2018, 395–8.

In the end, then, if the *Geschichte des Wissens* is willing to define itself as a sub-field which brings together historians of the sciences, media scholars, and cultural and intellectual historians for the purposes of certain inquiries, rather than as a field which replaces and subsumes these areas of study, I am all for it. It has real promise and purchase for some topics, for example, the Berlin project on the history of bureaucratic knowledge, and I can see its applicability for a large number of projects on the information sciences, on bio-medical knowledge networks, on the history of instruments, measurement, and observational techniques. It offers fascinating new ways to incorporate gender studies, material culture, and media studies.⁶⁰ But as a catch-all category threatening to swallow up the rest, *Wissensgeschichte* seems to me to make too vague what the content of its inquiries are, to tempt us to believe that knowing is humankind's only valuable form of action, and to steer us away from the why? questions historians should dare to speculate upon (although, inevitably, we will never have perfect answers). Even should it become a widely-recognized academic field, *Wissensgeschichte* will not replace the need for biographies of important scientists such as Newton, Darwin, or Curie, which, after all, are the histories most desired by the general reading public, to whom we should at least occasionally try to speak. Nor does it replace the need for the social history of the sciences, the world of amateur and craft practitioners, which should be integrated into the biographies but ought, in my view, to retain stronger links with social and cultural histories of particular regions and time periods. The history of knowledge offers tempting new areas of study and modes of research; but we need not eat so much of this new Lotus that we forget the charms offered by other, older archipelagoes of historical inquiry. After all, in our global age, we have a lot of sailing to do.

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