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# Introduction

## PRECARIOUS KNOWLEDGE, DANGEROUS TRANSFERS, AND THE MATERIALITY OF KNOWING

### The Loss of Knowledge

We seem to be sure of what we know. But that is deceptive. Knowledge can be endangered. Information can also suddenly go missing. Everyone knows from experience the bitter loss of a data file—or the discovery that a valued text has been erased or even that one's hard disk has crashed, eliminating in a flash the whole content of one's personal computer. What happens then? Thoughts that seemed stable or perhaps even beautiful and well formulated have suddenly lost their vehicle and do not exist anymore. They no longer exist if they can no longer be remembered or reconstructed. It is painful to see the contrast between the timelessness that propositions claim to have and our inability to recover these propositions in all the order or complexity they once had.

Something similar happens when a species of plants or animals goes extinct. Here again the genetic code is bound up with its physical carrier, and if the carrier can no longer reproduce, a sort of "knowledge" in nature is lost—a complex that stored experiences of survival, of accommodation, and of further evolutionary developments.

Like the genetic code of rare tigers, of whom only a few survive, manuscripts and printed books can contain insights that can disappear with their vehicle. When the antitrinitarian Michael Servetus was burned to death at the urging of Calvin in Geneva, all available copies of his work were burned as well. Only three copies of *Christianismi restititio* escaped destruction, but then a feeble stream of transmission developed, a new life, but at first only in

manuscript, until these copies provided the basis for a new printed edition in the eighteenth century.[1] Far different was the case of Kazimierz Lyszcynski, who was executed in 1689—one of the many whose works were so successfully exterminated that literally nothing of his thinking survives.[2]

What does this kind of scarcity and endangeredness mean for our concept of knowledge? When we speak of "knowledge"—especially in composite terms like "cultures of knowledge," the history of knowledge, or knowledge management—it becomes essential to clarify whether we are speaking of knowledge in a broad or narrow sense. In the narrow, epistemological meaning, knowledge should no longer be simply identified with Plato's idea of true and justified opinion. Recent discussions suggest further conditions that may be internalist, externalist, or limited in some other way.[3] But this purely epistemological concept of knowledge is too strict for many problems that depend on context, like those treated in this book. So I will be using a broader idea of knowledge, one that depends more on the subjective side and means essentially "reasonable convictions or beliefs." It presents more complex, theoretical deliberations than the smaller units of knowledge that we call information.[4] Thus knowledge is the "dinner" prepared from the raw ingredients of

1. See Jerome Friedman, *Michael Servetus: A Case Study in Total Heresy* (Geneva, 1978); Jean Jacquot, "L'Affaire de Servet dans les controverses sur la tolérance au temps de la Révocation de l'Édit de Nantes," in *Autour de Michel Servet et de Sébastien Castellion*, ed. Bruno Becker (Haarlem, 1953), 116–29; for a popular treatment, see Lawrence Goldstone and Nancy Goldstone, *Out of the Flames: The Remarkable Story of a Fearless Scholar, a Fatal Heresy, and One of the Rarest Books in the World* (New York, 2002).

2. Only a few fragments of his treatise *De non existentia Dei* are known from court records. Cf. Andrzej Nowicki, "Pięć fragmentów z dzieła De non existentia dei Kazimierza Łyszczyńskiego" (from the document held in the library of Kórnik No. 443), *Euhemer* 1 (1957): 72–81; idem, "Studia nad Łyszczyńskim," *Euhemer, Zeszyty Filozoficzne* 4 (1963): 22–83.

3. For an introduction, see Matthias Steup and Ernest Sosa, eds., *Contemporary Debates in Epistemology* (Oxford, 2004); Timothy Williamson, *Knowledge and Its Limits* (Oxford, 2000); Gerhard Ernst, *Das Problem des Wissens* (Paderborn, 2002). The problem of the loss of knowledge has also been treated by Peter Burke, *A Social History of Knowledge*, vol. 2: *From the Encyclopédie to Wikipedia* (Cambridge, 2012), 139–59. Robert N. Proctor and Londa Schiebinger have suggested a whole new discipline, dedicated specifically to not knowing; see idem, eds., *Agnotology: The Making and Unmaking of Ignorance* (Palo Alto, 2008). But they are concerned less with the loss of knowledge than with the problem of dealing with unknown facts and with the suppression of expert knowledge.

4. On the concept of information, see Arndt Brendecke, Markus Friedrich, and Susanne Friedrich, eds., *Information in der Frühen Neuzeit, Status, Bestände, Strategien* (Berlin, 2008).

information: it is organized information soaked in the context of experience and is therefore connected to many other sorts of information and not at all isolated.[5] Naturally, information and "small facts" come with their own load of theory, but it would make little sense to go into such detailed problems at this point. But it is clear that the "knowledge" of actors is similar to the notion of meaning as understood by Max Weber and Alfred Schutz: as an orientation to action.[6] Because meaning is mainly derived from society, that is, adopted, stored, and classified by others, knowledge can be understood as meaning that has become social. One can also speak of subjective bodies of knowledge and reflect on its relations with knowledge that is both institutionalized and socialized. In this way knowledge no longer has to be true because even "false" knowledge and erroneous theories can motivate and guide action.

Regardless of all that, even the masses of data and information that are transmuted into knowledge can disappear if their vehicle disappears. As the Renaissance philosopher Charles Bovelles wrote, the world contains a maximum of substantiality but a minimum of knowledge.[7] And he added that man has a maximum of knowledge but a minimum of substance. It would be hard to imagine a better image to express the fragility of human knowledge. The material basis is thin—it could hardly be thinner. If an individual person disappears, so does his world.

Would that be thinking of knowledge in terms that are too individualistic? If knowledge is socially transmitted meaning, then isn't it more the group, the institution, society itself that should be regarded as the medium or bearer of knowledge rather than the individual person? Isn't knowledge stored securely in the common language and culture and therefore immune to the dangers of losses in individual embodiments?[8] Even if single libraries burn down, societies can surely preserve the fundamentals of their knowledge. Yes, but this insight does not apply to "smaller," counterintuitive, specialized, or revolutionary

5. Cf. Peter Burke, *Papier und Marktgeschrei: Die Geburt der Wissensgesellschaft* (Berlin, 2001), 20; idem, *The Social History of Knowledge: From Gutenberg to Diderot* (Cambridge, 2000).

6. Cf. Hubert Knoblauch, "Was ist Wissen?" in idem, *Wissenssoziologie*, 2nd ed. (Constance, 2010), 359–66 (afterword).

7. Charles Bovelles, *De sapiente* (Paris, 1510), fol. XIX: "Mundus maxima substantia, scientia nullus. Homo scientia amplissimus, substantia pusillus. Uterque stat in utroque; uterque utriusque capax." Cf. Martin Mulsow, "Wissen III," in *Historisches Wörterbuch der Philosophie*, vol. 12 (Basel, 2004), cols. 876–80.

8. Cf. Ernest Gellner, *Language and Solitude: Wittgenstein, Malinowski and the Habsburg Dilemma* (Cambridge, 1998); Alvin I. Goldman, *Knowledge in a Social World* (Oxford, 1999).

units of knowledge, which are rare and may possibly not even exist in printed or in any other "communal" form.

Perhaps our experience of computer crashes has sensitized us to the loss of knowledge, but no one has yet drawn out all the consequences. We have not yet realized that the "material turn" in intellectual history highlights not just the means of storing information but also the ways in which knowledge can be endangered. That means that wonder cabinets and exotic objects are relevant to our topic, but so are charred paper and faded ink. When is knowledge itself endangered? Who threatens it? What is the difference between the loss of knowledge in a person and the loss of a text? How do we react to the loss of knowledge? These are the questions taken up in this book. According to an ancient tradition, the descendants of Seth (the third son of Adam and Eve) inscribed all knowledge onto two pillars that would withstand destruction from a global fire or flood. Similarly, the Pioneer 10 spacecraft launched in 1972 carries a special plaque with a pictorial message intended to be read by extraterrestrial aliens, conveying crucial information about the earth and human beings. These fantasies from ancient to modern times appear to represent or encapsulate the entirety of human knowledge.[9] But early modern times handled such questions in a more granular manner; preserving knowledge was often just a practical problem. How could one guarantee that a secret message, a letter, or a package actually reached its intended recipient? How could a certain message get past the censors to a potential reader? How could one make sure that the police did not confiscate and destroy the whole print run of a book?

## Precarity

I am subsuming all of these phenomena under the concept of "precarious knowledge." Precarious means unsure, tenuous, awkward, problematic, revocable. These descriptions do not refer mainly to the content of some kinds of knowledge but to their status. Of course it is clear that this status is itself often the result of content that is controversial and objectionable to a powerful elite,

9. Cf. Carl Sagan, ed., *Communication with Extraterrestrial Intelligence* (Cambridge, MA, 1975); Douglas A. Vakoch, ed., *Communication with Extraterrestrial Intelligence* (Albany, 2011). On the columns of Seth, see Jan Assmann, "Das gerettete Wissen: Flutkatastrophen und geheime Archive," in *Sintflut und Gedächtnis*, ed. Martin Mulsow and idem (Munich, 2006), 291–301.

but for the time being we'll ignore that fact. Instead, let us note three ways in which knowledge can be precarious: (1) the precarious status of certain media of knowledge; (2) the precarious social status of certain thinkers; and (3) the precarious status of certain forms of expression.

## The Precarious Status of Knowledge Transmitters

The medium of knowledge is precarious if it can easily be lost or destroyed. This occurs if texts or images exist only in unique specimens; or if they survive only in a few manuscript copies instead of in printed works; or if a communication exists only orally instead of in writing, and then perhaps without the memory of a group of some firmly established form of transmission,[10] or if it survives only subjectively in the mind of the messenger.

A perfect example can be found in the samizdat literature of Eastern Europe during the Cold War, works that were distributed only as typewritten pages,[11] or in their predecessors, the clandestine underground literature of the seventeenth and eighteenth centuries, when manuscript copies of tracts criticizing religion were "published" (i.e., distributed) in France and many other European countries.[12] All such texts were extremely vulnerable: they were forbidden; the authorities of church and state pursued them; and often they were destroyed once they were confiscated. For example, just three copies survive of *Theophrastus redivivus*, the comprehensive, scholarly, clandestine work from the 1650s, a philosophical text that seems to be the very first explicitly atheistic

10. Cf. Jack Goody, *Literacy in Traditional Societies* (Cambridge, 1975); idem, *The Logic of Writing and the Organization of Society* (Cambridge, 1986).

11. Cf. Wolfgang Eichwede, ed., *Samizdat: Alternative Kultur in Zentral- und Osteuropa: Die 60er bis 80er Jahre* (Bremen, 2000); Friederike Kind-Kovacs, "'Out of the Drawer and into the West': Tamizdat from the Other Europe and Its Reception in the West during Cultural Cold War (1956–1989)" (PhD diss, University of Potsdam, 2008); idem and Jan Behrends, "Vom Untergrund in den Mainstream: Samizdat, Emigrationsliteratur und Tamizdat und die Neuerfindung Mitteleuropas in den achtziger Jahren," *West-Ost-Verständigung im Spannungsfeld von Gesellschaft und Staat seit den 1960er-Jahren: Archiv für Sozialgeschichte* 45 (2005): 427–48.

12. See Gianni Paganini, *Introduzione alle filosofie clandestine* (Bari, 2008); Miguel Benitez, *La face cachée des lumières: Recherches sur les manuscrits philosophiques clandestins de l'âge classique* (Paris, 1996). Winfried Schröder provides a survey of the most important texts in *Ursprünge des Atheismus: Untersuchungen zur Metaphysik- und Religionskritik im 17. und 18. Jahrhundert* (Stuttgart, 1998).

treatise.[13] An accident could easily have annihilated these three. But even texts as harmless as the notes for opera arias were precarious. In the early modern period the notes of a piece were sometimes guarded as the secrets of an orchestra, performed but not printed or distributed in order to preserve an opera ensemble's claims of exclusivity. If an opera company dissolved, all traces of its music usually evaporated.[14] Other forms of exclusive knowledge included alchemical recipes and scientific or technical inventions.[15]

Let us also recall the philosophical "literature" dating back to the origins of literacy, such as the teachings of pre-Socratics like Pythagoras, whose work survives only in fragments assembled by later writers. Other forms of knowledge found in many oral cultures up to just before our time no longer survive because the representatives of those cultures died off.

## Precarious Social Status

The social status of persons can also be precarious if they hold certain views that are regarded as offensive, dangerous, or forbidden. These persons may be forced to communicate their ideas secretly either by hiding their identity or at least by hiding their intentions and opinions.[16] Wide dissemination of their views can provoke repression, and they may even be persecuted, so that they jeopardize their careers, their freedom, and even their lives. For them there is no easy way to publicize their ideas institutionally by teaching at universities and instructing students. To be sure, it became easier for such persons to have their works printed during the early modern period, but often only at specific places and by using various defensive measures such as anonymity, concealment of the publisher's name, and the use of clandestine distribution networks.[17] This was and is a high-risk activity.

13. See *Theophrastus redivivus: Edizione prima e critica*, ed. Guido Canziani and Gianni Paganini, 2 vols. (Florence, 1981, 1982).

14. See, in general, Isolde Schmid-Reiter, ed., *L'Europe Baroque: Oper im 17. und 18. Jahrhundert. L'opéra aux XVIIe et XVIIIe siècles* (Regensburg, 2010).

15. William Eamon, *Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture* (Princeton, 1996); Daniel Jütte, *Das Zeitalter des Geheimnisses: Juden, Christen und die Ökonomie des Geheimen (1400–1800)* (Göttingen, 2011).

16. See generally Perez Zagorin, *Ways of Lying: Dissimulation, Persecution, and Conformity in Early Modern Europe* (Princeton, 1990).

17. Ira O. Wade, *The Clandestine Organization and Diffusion of Philosophic Ideas in France from 1700 to 1750* (Princeton, 1938).

## The Precarious Status of Certain Forms of Expression

To avoid persecution, if they did not publish secretly, such persons often discovered highly refined methods of making their views available, at least indirectly, to a wider public without becoming liable or responsible for these opinions; examples include the use of masking, constructing a doubled persona, and "pseudonymization."

Without claiming to speak the truth directly one could also publish precarious knowledge within a framework that disguised it, for example in a literary fiction, or by putting ideas into the mouths of one or several dialogue partners, or by masking them in a joco-serious burlesque that made it difficult to tell if an utterance was to be taken seriously or only as a joke. Was it just an obscure performance within a riddle or an ambiguous reference or perhaps some "abstruse" form of speech, like those expressed in deliberately enigmatic academic "*dubia*"?[18] The intention was always to avoid or obfuscate any clear responsibility of a speaker for any specific statement so that one could always pull back—in case of denunciation, persecution, or legal accusation—and claim that one had not meant anything offensive.

If we are thus speaking of such "problematic" forms of speech, knowledge should be understood in the old sense of Kant's understanding of the problematical as applying to judgments in which the affirmation or denial is accepted as merely possible (ad libitum).[19] A matter may be put forward for discussion, for example, without making any claim of a final resolution, no fixed conclusion within the semantic net. So here there would be no truth or falsehood because it's only the propositional content that is at stake, a content that also tests the semantic net for the implications it would have if it were integrated into the net. But this knowledge is therefore precarious. The French word *précaire*, from which the English word "precarious" is derived, includes the meaning of fluctuating and revocable.[20] The word stems from "precarius," a Roman legal concept that described trading options and property relations that were guaranteed only by personal favor (cf. Latin *prex*,

18. Martin Mulsow, *Die unanständige Gelehrtenrepublik: Wissen, Libertinage und Kommunikation in der Frühen Neuzeit* (Stuttgart, 2007), 200ff.; Pävi Mehtonen, *Obscure Language, Unclear Literature: Theory and Practice from Quintillian to the Enlightenment* (Helsinki, 2003).

19. Kant, *Critic der reinen Vernunft* (Riga, 1781), A, p. 74; *The Critique of Pure Reason*, trans. J.M.D. Meiklejohn (London, 1855), SS 5, sec. II, para. 4 on "The Modality of Judgments."

20. Translator's note: The same can be said of the German word *prekär*.

*precis*) and could be revoked whenever the grantor wished.[21] Applied to our context this meant that precarious knowledge was uncertain; it had not been decided whether it was valid or if its claim to truth might have to be taken back, perhaps for internal reasons but perhaps because some powerful authority decided so. For example the Roman Inquisition could place certain books on the Index of Prohibited Books, or the imperial *Hofrat* (i.e., Aulic Court) might condemn a book and declare to the whole empire that its author should be prosecuted.[22]

The early modern history of these sorts of "problematic" matters encompasses a multitude of genres and expressive strategies that made possible a state of uncertainty; one of the most common was the joco-serious forms of half-joking speech.[23] When people began to consider that perhaps the philosophy of Epicurus might actually possess a certain truth, writers cautiously suggested so in comic jest books.[24] When Copernicus published his revolutionary idea of a heliocentric cosmos, Andreas Osiander famously declared that it was only a mathematical hypothesis that occupied a problematic status beyond any claims of being empirically true or false.[25]

## The Precariat of Knowledge

These various forms of precarious status can be said to produce an "intellectual precariat." The neologism "precariat" is an amalgam of "precarious" and "proletariat" used by modern sociologists to indicate that increasingly insecure forms of working and living have led to a sort of lower class, but not one that

21. Karl Ernst Georges, *Ausführliches lateinisch-deutsches Handwörterbuch*, 8th ed. (Hanover, 1918; reprint, Darmstadt, 1998), vol. 2, cols. 1908–9.

22. Franz Heinrich Reusch, *Der Index der verbotenen Bücher: Ein Beitrag zur Kirchen und Literaturgeschichte*, 2 vols. (Bonn, 1883–85); Hubert Wolf, *Index: Der Vatikan und die verbotenen Bücher*, 2nd ed. (Munich, 2006).

23. Cf. Martin Mulsow, "Libertinismus in Deutschland? Stile der Subversion im 17. Jahrhundert zwischen Politik, Religion und Literatur," *Zeitschrift für historische Forschung* 31 (2004): 37–71.

24. André Arnauld, "Apologia Epicuri," in idem, *Joci* (Avignon, 1605).

25. Bruce Wrightsman, "Andreas Osiander's Contribution to the Copernican Achievement," in *The Copernican Achievement*, ed. Robert S. Westman (Berkeley, 1975), 214–43; Lutz Danneberg, "Schleiermacher und das Ende des Akkommodationsgedankens in der hermeneutica sacra des 17. und 18. Jahrhunderts," in *200 Jahre "Reden über die Religion,"* ed. Ulrich Barth et al. (Berlin, 2000), 194–246, here at 209ff.

was confined to just one level or economic class; rather it can apply to all sorts of people, even including the traditionally elevated levels of the highly educated.[26] This amounts to a transformation of our understanding of social stratification by using the new criterion of income security. If we extend this understanding to the cultures of knowledge, we can speak of an "intellectual precariat." But we must also pay attention to the durable forms of knowledge transmitted by those who habitually use clandestine practices, camouflage their forms of expression, and partially even conceal their own identity. This precariat extended, as we will see, up into the "higher" layers of academic scholarship. Their opposites could then be called something like the "intellectual bourgeoisie," signifying those bearers of culture who can rely on secure institutions, open publications, and academic discipleship that provide space for acceptance of their pronouncements so that they need not resort to dissimulation. But we should not describe this intellectual bourgeoisie (actually we should be calling it the "knowledge securiat") as a social class with any clearer borders than those of the precariat; they were both amorphous.

Taking this view of things transforms our conventional intellectual history, which usually focuses on radical, moderate, and orthodox streams of thought.[27] Our new approach concentrates not on the classification of ideas but on the status of the carriers of knowledge, and specifically on whether that status was

26. Cf. Robert Castel, *Les métamorphoses de la question sociale, une chronique du salariat* (Paris, 1995) (English translation by Richard Boyd, *From Manual Workers to Wage Laborers: Transformation of the Social Question* [New Brunswick, 2002]); Évelyne Perrin, *Chômeurs et précaires au cœur de la question sociale* (Paris, 2004); Robert Castel, *Prekarität, Abstieg, Ausgrenzung: Die soziale Frage am Beginn des 21. Jahrhunderts*, ed. Klaus Dörre (Frankfurt, 2009); Heinz Bude and Andreas Willisch, eds., *Exklusion: Die Debatte über die "Überflüssigen"* (Frankfurt, 2007); idem, eds., *Das Problem der Exklusion: Ausgegrenzte, Entbehrliche, Überflüssige* (Hamburg, 2006); Heinz Bude, *Die Ausgeschlossenen: Das Ende vom Traum einer gerechten Gesellschaft* (Munich, 2008); Claudio Altenhain et al., eds., *Von "neuer Unterschicht" und Prekariat: Gesellschaftliche Verhältnisse und Kategorien im Umbruch* (Bielefeld, 2008); Alessandro Pelizzari, *Dynamiken der Prekarisierung: Atypische Erwerbsverhältnisse und milieuspezifische Unsicherheitsbewältigung* (Constance, 2009).

27. Cf., e.g., Margaret C. Jacob, *The Radical Enlightenment: Pantheists, Freemasons and Republicans* (London, 1981); Jonathan Israel, *Radical Enlightenment: Philosophy and the Making of Modernity, 1650–1750* (Oxford, 2001); idem, *Enlightenment Contested: Philosophy, Modernity, and the Emancipation of Man, 1670–1752* (Oxford, 2006); idem, *Democratic Enlightenment: Philosophy, Revolution, and Human Rights, 1750–1790* (Oxford, 2011). For further discussion, see Catherine Secretan et al., eds., *Qu'est-ce que les lumières radicales? Libertinage, athéisme et spinozisme dans le tournant philosophique de l'âge classique* (Amsterdam, 2007).

secure and by what means it was secure. Such security was usually the result of the social acceptance of the ideas of these carriers, who could therefore depend on professorships and on firm bonds of patronage that produced groups of disciples and students and the certainty that their writings would be printed and published. Yet that was not always the case. Occasionally radicals too might—at least for a time—develop their ideas under the protection of a prince's patronage (as in the case of the rationalist biblical translator Johann Lorenz Schmidt at the court of Countess von Löwenstein-Wertheim-Virneburg),[28] but moderate thinkers could also fall into precarious circumstances. Often the border between the precariat and the bourgeoisie ran straight through one person, for example, when a theoretician had to divide his works, as Isaac Newton clearly did, between those in physics that he published and those on alchemical or religious-historical topics that remained unpublished.[29] Another example might be Hermann Samuel Reimarus, who acted on the surface like a distinguished Hamburg professor, who published many philosophical works, but who also had one foot in the precariat because he secretly wrote his *Apologie*, an attack on ideas of Christian revelation.[30] Initially we should regard the intellectual precariat and the intellectual bourgeoisie as just a group of persons; but it is also sensible to think in terms of Bruno Latour's notion of "ensembles" of persons, manuscripts, and pictures; they are all "carriers of knowledge" in a neutral sense that points to its pure potential for updating knowledge.[31]

The trichotomy describing a radical, a moderate, and an orthodox Enlightenment sets things up differently, because concentrating on precarity does not

28. Ursula Goldenbaum, *Appell an das Publikum: Die öffentliche Debatte in der deutschen Aufklärung 1687–1796* (Berlin, 2004).

29. Cf. B.J.T. Dobbs, *The Foundations of Newton's Alchemy* (Cambridge, 1983); James E. Force and Richard H. Popkin, eds., *Newton and Religion: Context, Nature and Influence* (Dordrecht, 1999); Richard S. Westfall, *Never at Rest: A Biography of Isaac Newton* (Cambridge, 1983).

30. Hermann Samuel Reimarus, *Apologie oder Schutzschrift für die vernünftigen Verehrer Gottes*, 2 vols., ed. Gerhard Alexander (Frankfurt, 1972). Cf. Dietrich Klein, *Hermann Samuel Reimarus (1694–1768): Das theologische Werk* (Tübingen, 2009); Martin Mulsow, ed., *Between Philology and Radical Enlightenment: Hermann Samuel Reimarus (1694–1768)* (Leiden, 2011).

31. I refer, e.g., to Bruno Latour, "The Berlin Key, or How to Do Words with Things," in *Matter, Materiality and Modern Culture*, ed. P. M. Graves-Brown (London, 1991), 10–21; idem, *Reassembling the Social: An Introduction to Actor-Network Theory* (Oxford, 2007). But one could also think of Foucault's broad concept of discourse and *dispositif*. Michel Foucault, *The Archaeology of Knowledge*, trans. Alan Sheridan (New York, 1972); idem, *The Order of Things*, trans. Alan Sheridan (New York, 1973).

allow for any clearly defined exclusions; instead we must distinguish zones of weaker integration[32] with divided knowledge and divided convictions from zones of stronger integration, in which radicalization resulted in the "casualization" of knowledge (*Wissensprekarisierung*). Chapter 3 will show that this transformation is helpful for understanding cases like that of the "freethinker" Theodor Ludwig Lau, who was able to integrate his ideas as a cameralist into the debates of his social circle, but his thinking as a philosopher could not be so easily integrated.

## Knowledge in Niches

If we seriously apply Gregory Bateson's metaphor describing an "ecology of the intellect" to intellectual history, we can think fruitfully about protecting "endangered species" of knowledge.[33] In contrast to the ideas of the evolution of ideas[34] based on normal cases, we will be examining borderline cases of catastrophes and near catastrophes in which knowledge goes extinct or nearly does so. Only then do all the niches come into view, ranging from persecuted freethinkers, to women, to innovative scholars; then we can protect their insights and see how they spread despite their being endangered.[35] It might concern a Spinoza, who entrusted the manuscript of his *Ethics* to his closest friends, asking them to publish it after his death,[36] or perhaps a Reimarus, who left his *Apologie* to certain trusted members of his family, as we'll see more clearly in chapter 10. In each case we need to reconstruct the exact historical circumstances that made the construction of such niches necessary. Publishing and not publishing (or posthumous publishing) are speech acts; they were

32. Borrowing from Castel, *Prekarität, Abstieg, Ausgrenzung*, ed. Dörre, 15.

33. Gregory Bateson, *Steps to an Ecology of Mind* (Chicago, 1972). Markus Völkel has urged the adoption of Bateson's concept for intellectual history: "Historiker oder Narr: Das Lächerliche in Theorie und Praxis frühneuzeitlicher Geschichtsschreibung (16. und 17. Jahrhundert)," *Zeitschrift für historische Forschung* 21, no. 4 (1994): 483–511.

34. Niklas Luhmann, *Ideenevolution* (Frankfurt, 2008).

35. Mulsow, *Die unanständige Gelehrtenrepublik*.

36. Koenraad O. Meinsma, *Spinoza et son cercle* (1895 [Dutch]; Paris, 1984). Cf. Leen Spruit and Pina Totaro, *The Vatican Manuscript of Spinoza's "Ethica"* (Leiden, 2011). Generally, Manfred Walther and Michael Czelisnski, eds., *Die Lebensgeschichte Spinozas: Zweite, stark erweiterte und vollständig neu kommentierte Auflage der Ausgabe von Jakob Freundenthal 1899* [with a bibliography] (Stuttgart, 2006).

ways of acting; and we have to discover the intentions that made it one way and not another.[37]

Niches were not just a means for the concealment of manuscripts; they could also be institutional or textual. The so-called Averroists at the University of Paris in the thirteenth century were trying to carve out an institutional niche for philosophy by separating philosophical from theological truth by faculties (or departments, as we might call them).[38] Religious dissidents in the sixteenth century and the philosophical libertines of the seventeenth used equivocation about categories in order to make themselves invulnerable to the assaults of their critics, or they constructed strategies similar to those of their spiritual forefathers among the medieval Jews and Muslims, ways of saying things between the lines that were different from the surface of the text.[39]

In such niches knowledge was rare almost by definition. It was elite knowledge, not in the sense that only an upper class had access to it but because only a limited, initiated circle could acquire it. It possessed a different logic from knowledge that flourished in unendangered circumstances and hotly contested situations, knowledge that was part of the mainstream of the Great Tradition. The fundamental differentiation of knowledge according to who carried and transmitted it was well known. The humanist Mario Nizolio, who was writing in the wake of Lorenzo Valla and centuries before Ludwig Wittgenstein, unmasked the language traps of professional philosophers—whom he labeled "pseudophilosophers." In 1553 he distinguished the artificial way of knowing (*idios*) among philosophers who did not use any language from the way of knowing embodied in the common language (*koinos*) of normal people and from the specially elaborated language (*kyrios*) of the spiritual elite. He described the elite as those who "understand one or more things that are

37. Cf. Quentin Skinner, "Meaning and Understanding in the History of Ideas," *History and Theory* 8 (1969): 3–53.

38. Cf. chapter 2, where the literature is listed.

39. Cf. Laurent Jaffro et al., eds., *Leo Strauss: Art d'écrire, politique, philosophie* (Paris, 2001); Jean-Pierre Cavaillé, *Dis/simulations: Jules César Vanini, François La Mothe Le Vayer, Gabriel Naudé, Louis Machon et Torquato Accetto; religion, morale et politique au XVIIe siècle* (Paris, 2002). Moshe Halbertal, *Concealment and Revelation: Esotericism in Jewish Thought and Its Philosophical Implications* (Princeton, 2007). See also the clear critique of Strauss's views by scholar of Islam Dimitri Gutas, "The Study of Arabic Philosophy in the Twentieth Century: An Essay on the Historiography of Arabic Philosophy," *British Journal of Middle Eastern Studies* 29 (2002): 5–25.

worth knowing, are hard to know, and are unknown by the common people."[40] This is the way in which Averroes distinguished between common and uncommon knowledge when he claimed that philosophers could digest more knowledge and truth than simple people could. And for that reason it was legitimate to withhold certain truths from the people: they should not be given a stomachache.[41]

But withholding certain kinds of knowledge from certain groups is not a real sign of its precarious status. Rather, it could also be a sign of privileged information controlled by the authorities, such as the church or the state—the Arcana *imperii*.[42] Only if a piece of knowledge was regarded as "hot" information, that is, an item that (in contrast to "cold" or preserved dogmas) was totally open for further internal development, was it really true that it might need the sort of robust intellectual "digestion" in the sense that Averroes was speaking of; only then could it be integrated into expanding knowledge that might go in unexpected or even undesirable directions. Below we will develop the concept of "inferential explosiveness" to describe the quality found in "hot" information. If one desired to carve out a protective niche for such knowledge, one might have to confront the paradox that one was trying to confine something whose content could not be limited, except at best formally or temporarily. This could be achieved with language, using Latin that the common people could not read,[43] or institutionally by confining specific knowledge to the philosophical faculty. And yet conflict was unavoidable, and the barriers of language and institutions could all too easily be ruptured, especially when they were attacked by fanatics or zealots for the truth. Sincerity, which along with accuracy is one of the two cardinal virtues of truth as identified by Bernard Williams, frequently rejects any communicative barriers.[44]

One curious niche for knowledge is the footnote.[45] In these underground vaults of scholarship one finds not only the "choicest bottles," as Robert

40. Mario Nizolio, *De veris principiis et vera ratione philosophandi* (Parma, 1553), III,1,1 (German translation: *Vier Bücher über die wahren Prinzipien und die wahre philosophische Methode, gegen die Pseudophilosophen* [Munich, 1980]).

41. Averroes, *Kommentar zum 3. Buch der aristotelischen Physik*; cf. chapter 2.

42. Andreas Gestrich, *Absolutismus und Öffentlichkeit: Politische Kommunikation in Deutschland zu Beginn des 18. Jahrhunderts* (Göttingen, 1994).

43. Françoise Waquet, *Le latin ou l'empire d'un signe, XVIe–XXe siècle* (Paris, 1998).

44. Bernard Williams, *Truth and Truthfulness: An Essay in Genealogy* (Princeton, 2002).

45. On the footnote, see Anthony Grafton, *The Footnote: A Curious History* (Cambridge, MA, 1999).

Minder once said, but also the hidden contraband that one hoped to preserve safe from the prying eyes of hasty inspectors. Jacob Soll has shown that Amelot de Houssayes used his annotations and footnotes to ancient historians such as Tacitus or political theorists such as Machiavelli to express a sort of critical thinking that was a seventeenth-century forerunner of the Enlightenment. This critical thinking did not develop on the periphery of power but at its very center, in Paris. That was possible only because the indirect forms of commentary and annotation permitted certain liberties that would not have survived in the main text.[46] Footnotes provided a space in which one could experiment with explosive ideas or import impudence and hijinks because they did not attract as much close attention as the main text. So we find here a precarious knowledge that literally submerged sensitive material in the "preconscious" level at the foot of the page.

This is even truer in the case of handwritten marginalia, which constitute quasi-private footnotes or intimate messages offered to those who might borrow an annotated copy for private reading. John Toland communicated in this manner with his friend Robert Molesworth.[47] Thus the privacy or "domesticity"[48] of marginalia can provide a key to this sort of preconscious. So we can suggest that the materiality and uniqueness of handwritten comments offer insights into the emotional side of scholarship, the history of fascination with the exotic, the problematic, and the highly controversial.

## Risky Transfers

The precarious status of knowledge had obvious consequences for communication. Every transfer can run a risk, both for the transmitter and for the recipient. Frequently just being found in possession of forbidden writings such as *De tribus impostoribus* or the *De vindiciis contra tyrannos* could lead to draconian punishments. Simply transmitting a report could be risky. Just as the claims of knowledge to possess a sort of universal truth were no guarantee that it would survive materially, so it was no guarantee that it could be transferred

46. Jacob Soll, *Publishing the Prince: History, Reading, and the Birth of Political Criticism* (Ann Arbor, 2005).

47. Justin Champion, *Republican Learning: John Toland and the Crisis of Christian Culture, 1696–1722* (Manchester, 2003).

48. Michael McKeon, *The Secret History of Domesticity: Public, Private, and the Division of Knowledge* (Baltimore, 2005).

successfully from one insider to another. Naturally and in general the history of communication in the early modern period was a history of success. With the invention of printing came standardization, comparability, and objectivity, as well as toleration and public opinion.[49] We learned that long ago. But a little skepticism is in order, and certain distinctions need to be made. The print media according to Adrian Johns did not simply foster uniform standards, as Elizabeth Eisenstein claimed, because it also produced variation and deviation.[50] If we look more closely, the history of communicating knowledge appears much less orderly. Printers used to switch whole passages around between work sessions, pages got lost, and authors rushed to insert a couple of additions at the last minute.

The same thing is true if we divide knowledge into "normal" and "precarious," for it's clear that all the precarious knowledge hidden in niches during the early modern period had to survive a whole series of problematic transfers. Let's recall an example much closer to our times, the samizdat literature of Eastern Europe during the Cold War. It was typed on private typewriters, and mimeographed writings and pamphlets were handed around under the table, "published," in a sense; but such communications were suppressed and authors were sent to the gulag. Every transfer ran huge risks of failure, which could plunge both the sender and the recipient of a message into danger.

These problems in transfer implicitly raise questions about the nature of knowledge. For one thing, the ensemble of practices, convictions, generational experiences, and individual appropriations can be hard to disentangle and can seem merely old-fashioned to a younger generation; certain abilities such as being able to read Latin can wither, and certain cultural practices, such as writing down the fruits of one's reading in special notebooks of "loci communes," can die out. But there are also transfer problems that apply specifically to controversial knowledge: censorship and persecution made secrecy crucial; they promoted clandestine means of distribution or the use of allusions as a means of disguising an author's meaning.[51] Pseudonyms were used, and publishers posted false information about the printer or place of publication; titles were falsified as well. All too often these tactics did no good. Books were confiscated

49. Elizabeth Eisenstein, *The Printing Press as an Agent of Change: Communications and Cultural Transformations in Early Modern Europe* (Cambridge, 1979).

50. Adrian Johns, *The Nature of the Book: Print and Knowledge in the Making* (Chicago, 1998).

51. Martin Mulsow, "Die Transmission verbotenen Wissens," in *Kulturen des Wissens im 18. Jahrhundert*, ed. Ulrich Johannes Schneider (Berlin, 2008), 61–80.

and print runs were destroyed, authors were jailed or even killed. But these techniques could also lead to serious misunderstanding or obscurity. And so the underground scene was itself cloaked in a certain opacity, especially because the actors themselves had difficulties in learning who had really written a book, where they could find a copy, and what certain allusions meant.[52]

Research over the past two decades into cultural transfers has developed a series of concepts that can be usefully applied to the special case involving the transfer of knowledge. Thus we need to distinguish "structures" from "cultures" and the culture of origin from the culture into which something is being translated. Scholars have stressed how much meanings change if knowledge developed in one culture is reconstituted in new national or cultural contexts.[53] Such reconstitutions can lead to gross distortions with regard to precarious knowledge. For example, statements that in one culture may be completely unproblematic can suddenly be explosive in another culture, in a place with a different confession or religion. Thus anti-Christian arguments that circulated unproblematically in manuscript among the seventeenth-century Jews of Amsterdam became ticking time bombs when they came by chance into the hands of intellectuals outside these circles or were printed, as sometimes happened.

The transfer of knowledge is also risky or fragile in the simple sense that packages sometimes just do not arrive. A historical reconstruction of intellectual exchange that is oriented to practices cannot ignore such contingencies. In a case study in this book I will show that a packet of notes on the history of philosophy that went astray (or was perhaps wantonly destroyed by opponents) crucially influenced philosophical historiography in Germany. If one agrees with Bruno Latour in describing the consequences of actions in such a way that things can also be reckoned as agents, then the intellectual history of an epoch should see manuscripts as actors and take censorship regulations and postal routes into account.[54] For the history of precarious information this would mean that endangered species of knowledge move to the very

52. Martin Mulsow, *Enlightenment Underground: Radical Germany, 1680–1720*, trans. H. C. Erik Midelfort (Charlottesville, 2015).

53. Wolfgang Schmale, ed., *Kulturtransfer: Kulturelle Praxis im 16. Jahrhundert* (Vienna, 2003); Michel Espagne and Michael Werner, eds., *Transfers: Les relations interculturelles dans l'espace franco-allemand (XVIIIe–XIXe siècles)* (Paris, 1988).

54. For a critical discussion of this approach, see Georg Kneer, Markus Schroer, and Erhard Schüttpelz, eds., *Bruno Latours Kollektive* (Frankfurt, 2008).

center of our concern, shaping our understanding of functional but especially of dysfunctional communications. Where did the Republic of Letters get stuck? Where were packages pulled out of circulation instead of proceeding on their way?

## Tacitness: Intellectual History and Cultural Studies

The discipline of "knowledge management" has adopted Michael Polanyi's notion of tacit knowledge and used it for questions of business management.[55] I have already alluded to the role of tacitness in transfer problems. I think that Polanyi's reasoning can also be deployed to pull various forms of knowledge into the description of the intellectual precariat. We must especially consider whether paratextual, visual, and practical forms of knowledge could be described as tacit. Polanyi understands "tacit knowledge" as knowing *how* something is done, even if the actor does not explicitly indicate (or may not be able to indicate) just what this "knowing how" consists of. This may be because tacit knowledge often consists of habitual automatisms, but also because such knowledge may not be focused and thus may form only the background of one's consciously guided attention.

Both kinds of tacitness can serve to integrate new directions in cultural studies into the history of knowledge. Intellectual history has become to no small degree a cultural history of intellectual practices.[56] The acquisition of certain practices anchors knowledge in human thought and behavior, and in this way tacit sorts of knowledge exercise a real influence. This accords well with one of Michel Foucault's central insights: that these tacit factors (or, as he calls them, discursive formations) shape the content of what we know.

The category of tacit knowledge also opens up the history of knowledge to other suggestions coming from cultural studies. Our use of images, our emotionality and gestures can all be seen as corporeal or unfocused expressions of knowledge, even if they can later become the objects of focus and then explicit topics for discussion. According to Nonaka and Takeuchi the constant alternation between explicitness and tacitness is one of the keys to successful

55. Ikujiro Nonaka and Hirotaka Takeuchi, *The Knowledge Creating Company: How Japanese Companies Create the Dynamics of Innovation* (New York, 1995).

56. Peter Burke, "The Cultural History of Intellectual Practices," in *Political Concepts and Time: New Approaches to Conceptual History*, ed. Javier Fernández Sebastián (Santander, 2011), 103–28.

communication in business. And maybe we need to imagine communication among members of the intellectual precariat in a similar manner: as an alternation between the tacit, personal transmissions in the small circle of trusted confidants and the explicit formulations of written documents that are saturated with allusions, textual gestures, and unspoken practices.

The knowledge tied up in images is also tacit insofar as the (verbal) description of pictures never fully encompasses their meaning. Realizing that precarious knowledge is rare enables us to learn from "visual studies," which has broken down the old barriers of art history. Art historians used to concentrate on a restricted canon of works recognized as "art," but visual studies have turned our scholarly attention to all sorts of visual images from films and news photos to comics, graffiti, and scientific illustrations, without regard to whether they are art.[57] But taking a cue from visual scholars, what happens to "historical textual studies" if they no longer concentrate only on what can be found in books or manuscripts? As the case study in chapter 9 will show, certain philosophical thoughts from texts long considered lost can be reconstructed from paintings that have survived. So here historical visual studies come together with textual studies, because the text can only be conceived as something that was precariously or tacitly embedded in a picture; the picture will not be interpreted as art but as a historical document that was itself integrated with the needs of a learned culture for visual representation.

Pictures from the world of learning are interesting for our study in yet another way. They can display the status of the knower and the endangered status of his or her knowledge. In allegorical form—that is, deliberately obfuscated—they show us that cultures of knowledge are structured by trust or by distrust: trust in small groups of the like-minded, who produce new knowledge; and distrust of the powerful, who do not want to accept this new knowledge, who misunderstand, despise, and threaten it. From this meta-perspective on the conditions set by the world, allegories and gestures speak more loudly than texts. In emblems, portraits, and staged images of actions the double character

57. W.J.T. Mitchell, *Picture Theory: Essays on Verbal and Visual Representation* (Chicago, 1994); Gottfried Boehm, ed., *Was ist ein Bild?* (Munich, 1994); Horst Bredekamp, "Bildwissenschaft," in *Metzler Lexikon Kunstwissenschaft*, ed. Ulrich Pfisterer (Stuttgart, 2003); Hans Belting, *Bild-Anthropologie: Entwürfe für eine Bildwissenschaft* (Munich, 2001); Jörg Probst, Jost Philipp Klenner, and Christian Berndt, eds., *Ideengeschichte der Bildwissenschaft* (Frankfurt, 2009).

of "representation" is vividly present as both an imagined scene and a portrayal of the social world.[58]

The largely unconscious portions of bodies of knowledge and their emotional "colors" make up another tacit aspect of life, shaping the lives of individuals. This tacit dimension reaches deeply into the ambivalences of modern life: fascination, dread, feelings of disgust—all play a role even in the apparently abstract occupations of many a scholar sitting at a desk or the researcher in the laboratory.

We penetrate the layers of tacit knowledge most easily when we can read the manuscript evidence, where a scholar transcribed his reading into notes directly, sometimes with a trembling hand, or recorded his enthusiasm or rejection in the manuscript marginalia written in a book. In such cases we can sense a reader's reactions in all their full cognitive and emotional variety. Knowledge about the East, for example—concerning the language of the Ethiopians, or the legendary Prester John, or the gods of the Syrians—could be both fascinating and controversial. As we will see in chapter 14, such information cast a spell over many an early modern scholar because it promised to disclose an exotic, unknown world, but it was dangerous because of the new perspectives contained in these subjects: from possible political alliances against the Ottoman Empire to insights that could devalue the Christian religion.[59] At the same time it sharply challenged old or habitual scholarly practices because, after all, who could expect to master the Arabic, Syrian, Coptic, and Amharic languages? How could one expect to digest the flood of information that was pouring from these manuscripts? How was it all to be incorporated into the semantic network?

In the early modern period knowledge about magic had an ambivalent force of dramatic proportions. Humanists extracted some of it from Kabbalist treatises or necromantic handbooks and created connections with various ancient philosophies, trying to make sense of the weird diagrams, names of angels, and magical formulas contained in them. As we will see in chapter 12, they were both attracted to and repelled by this material. They began to collect talismans but did not know what to do with these "alien things."[60] Even if they

58. Roger Chartier, *Cultural History: Between Practices and Representations*, trans. Lydia G. Cochrane (Ithaca, 1988).

59. Cf. Wilhelm Braun, *Die Verwandlungen des Mythos vom Reich des Priesterkönigs Johannes* (Klagenfurt, 1999).

60. Michael C. Frank et al., eds., *Fremde Dinge* (= *Zeitschrift für Kulturwissenschaft* 1/2007).

eliminated virtually every trace of this fascination from the learned treatises they finally wrote, it would be a serious mistake to pay attention only to the end product, the published book, because the explicit knowledge exposed there rested on deep layers of tacit knowledge that testified to the quivering or marveling attraction these authors felt toward magic, their unacknowledged experiments and their passionate collecting of magical objects.

## Inferential Explosiveness

Up to this point we have left to one side the content of precarious knowledge both in determining what made the status of certain knowledge precarious and in considering the questions that emerge from cultural studies. But it would be a mistake to completely ignore the content because often enough it was the content that determined its precarious status. What were the typical sorts of precarious knowledge?

In the early modern period Enlightenment thinkers often accused the Orthodox elites of "hunting after the supposed consequences" of anything out of the ordinary ("*Konsequenzenmacherei*"), of discovering supposedly atheistic, heretical, or socially dangerous implications in certain authors. And indeed all too often the Orthodox did go too far in their effort to define and defend truth ever more narrowly and ruthlessly. Even so, this hunt for consequences did have a real point: a deviant statement might not have been explosive in itself but an assertion might have upsetting implications for an established body of knowledge.

For that reason it will be important to supplement Polanyi's notion of tacitness with another, entirely different and philosophically much broader meaning of "implicit." Robert Brandom[61] has developed a position that he calls "rationalistic pragmatism" because he understands assertions and convictions pragmatically as social practices of giving or demanding reasons. Broadly speaking for him, asserting something is the tacit knowledge of how something is to be done. There's a connection between practicality in intellectual history and rationalistic pragmatism. The first concentrates on the learned practices that are characteristic for the forms of knowledge: collecting texts, concealing and secretly distributing manuscripts, excerpting books, and smuggling radical notions into the footnotes. The latter, in contrast, concentrates

61. Robert B. Brandom, *Articulating Reasons: An Introduction to Inferentialism* (Cambridge, MA, 2001), 11; idem, *Begründen und Begreifen: Eine Einführung in den Inferentialismus* (Frankfurt, 2001); idem, *Reason in Philosophy: Animating Ideas* (Cambridge, MA, 2009).

on the practices of giving reasons and drawing conclusions—the provision of so-called inferential determinations. "Saying or thinking that things are thus-and-so is undertaking a distinctive kind of inferentially articulated commitment: putting it forward as a fit premise for further inferences, that is, authorizing its use as such a premise, and undertaking responsibility to entitle oneself to that commitment, to vindicate one's authority, under suitable circumstances, paradigmatically by exhibiting it as the conclusion of an inference from other such commitments to which one is or can become entitled."[62]

The concept of assuming responsibility is the decisive one for us. For one can say that some tactics dealing with precarious knowledge consisted specifically in not taking responsibility, in refusing to make oneself explicit. Above all, as chapter 2 will show, certain quasi-juridical constructions were invented in order to avoid having to take responsibility for atheistic statements. Precarious forms of speech were used to utter certain sentences, as we have seen, that could not be clearly attributed to the speaker.

Why should radicals have hesitated to make explicit statements? Well, because then the consequences of their theses would become visible. Thus one can say that precarious knowledge often had a certain inferred explosiveness. Knowledge was tacitly explosive if its integration into the larger body of knowledge would lead to overturning a significant number of established truths within that body.[63] Explosive ideas are like black swans, extremely rare and always unexpected events or facts, which once they appear or are recognized have massive effects.[64] It is therefore awkward to accept such knowledge or such information.

Cognitive scientists speak of "semantic networks" to refer to knowledge that is so organized that the elements of knowledge get stored at certain "knots," to which one can then refer and which are inferentially connected with other knots.[65] The knowledge landscape can be seriously disturbed if central "knots," for instance certain political or theological notions, are occupied differently. To give just one example, Michael Servetus's arguments

62. Brandom, *Articulating Reasons*.

63. Cf. the reflections on Donald Davidson's semantic holism in Mark Bevir, *The Logic of the History of Ideas* (Cambridge, 2002).

64. Nassim Nicholas Taleb, *Der schwarze Schwan: Die Macht höchst unwahrscheinlicher Ereignisse* (Munich, 2010).

65. Allan M. Collins and Ross Quillian, "Retrieval Time from Semantic Memory," *Journal of Verbal Learning and Verbal Behaviour* 8 (1969): 240–47; and more generally, Robert Solso, *Cognitive Psychology*, 6th ed. (Boston, 2001).

against the Christian doctrine of the trinity—such as the factual claim that the New Testament had no passages on which belief in the trinity could be based—were explosive by inference, for if they had been accepted, a key element of Christianity over against the other monotheistic religions would have had to be abandoned; but also the divinity of Jesus Christ would have collapsed and many other consequences would have been necessary as well.

A second example is Isaac La Peyrère's claim in 1655 that there was human life before Adam.[66] At first sight this seems to be only a bizarre and isolated exegetical thesis. But it was deeply embedded in the knowledge cosmos of the seventeenth century, and that meant, for example, that the peoples of the newly discovered American continent could well be the descendants of pre-Adamite people; but then, further, that the whole system of original sin and salvation did not apply to them; and that even before Creation there may have been even older peoples, whose existence demolished the chronology of the Bible. If the biblical chronology of the six thousand years since Creation was no longer valid, however, then a whole series of other assumptions were thrown into question.

Because the arguments of Servetus and those of La Peyrère were hardly weak and could not be dismissed out of hand, they were explosive; and so an attempt was made to isolate these assertions and to pull them out of circulation. Against such attempts were ranged the many sorts of tactics by authors who, despite the dangers, distributed them anyway. Other pieces of knowledge, however, could be explosive even if they were not directly opposed to the currently orthodox views but merely exhibited an erratic character that could not easily be fitted into the existing framework of accepted wisdom. Lorraine Daston has researched the "strange facts" found in Francis Bacon and has drawn the conclusion that just their rarity and oddity made them potentially destructive of the traditional Aristotelian Worldview.[67]

## Precarious Elements in the Intellectual Bourgeoisie

In my view it's always important to see the intellectual precariat within the context of the larger intellectual bourgeoisie and thus to resist the temptation of succumbing to the social romanticism that emphasizes only the "outsiders," the "radicals,"

66. Isaac La Peyrère, *Praeadamitae* (Amsterdam, 1655). Cf. Richard H. Popkin, *Isaac La Peyrère (1596–1676): His Life, Work and Influence* (Leiden, 1987).

67. Lorraine Daston and Katherine Park, *Wonders and the Order of Nature, 1150–1750* (Cambridge, MA, 1998), 253–300.

the "freethinkers," and "dissidents."[68] Otherwise we run the risk of regarding isolated individuals or small groups, which for very different reasons found themselves in the wilderness or part of a protest, as somehow constituting a large group and of imagining them as having a homogeneity they did not at all possess. Therefore I'm learning from current sociological research on the precariat but trying to identify small units and areas in which precarious knowledge is dominant, where, in Robert Castel's words, there were deficits of integration or in our case where links to traditional knowledge were deficient.[69] But of course there are also zones within secure cultures of knowledge where precarious elements could create serious wounds. In those cases we may speak of real fragility.

In my view, one of the most important conclusions of my book *Enlightenment Underground* is that especially in the late seventeenth century and the early eighteenth, in a decisive period of moving toward modernity,[70] radicalized intellectual debates broke out only in the context of debates within established scholarship. Far from trying to establish a separate, independent tradition (e.g., some sort of proto-Marxism), it was mostly the actual dynamics of debates that created space for radical commentary. Methodologically this implies that even early modern scholars with exalted positions, whose scholarly production was "secure," could become enmeshed in zones containing precarious knowledge. We will see that it was mainly implicit factors such as ambivalences and fascinations that made the knowledge of established groups so vulnerable. But external circumstances such as foreign travels or just putting certain materials in the post could also expose knowledge or its carrier to a variety of risks.

This book therefore seeks to develop the elements of a theory and practice of precarious knowledge in the early modern period, using examples from entirely different zones of such knowledge. Although certain forms of the intellectual precariat can be found in earlier or later periods, I will confine myself here (owing to my limited competence) to the time from the Renaissance to the Enlightenment. Trying to tell the whole history of precarious knowledge in the early modern period would be a hopeless task at this point. So this book works from case studies that are almost always based on distinctive sources. It draws conclusions from these specific sources and does not pretend to offer

68. This is the risk encountered in many older Marxist or neo-Marxist works, e.g., Gottfried Stiehler, ed., *Beiträge zur Geschichte des vormarxistischen Materialismus* (Berlin, 1961).

69. Castel, *From Manual Workers to Wage Laborers*, 395.

70. Paul Hazard, *The Crisis of the European Mind: 1680–1715*, trans. J. Lewis May (London, 1953).

universal claims in some abstract space. It intentionally descends into the everyday problems of tacit knowledge, exploring the obscure settings of controversial statements and the key junction points of dysfunctional transfers.

The trick is choosing the right guides who can provide the "index fossils" (to use Hans Blumenberg's image) that can lead us into the hidden layers of intellectual history. For this task the most useful thinkers are second- and third-rate theorists, who until now have never been given much attention, because they can show us the typical intellectual and behavioral models of an age; but they can also guide us into areas that lie off the beaten track of ordinary research. I have located some of these guides in the Italy of the early seventeenth century, especially in the libertine circles of Venice, concentrating especially on the painter Pietro della Vecchia, a little-known imitator of Titian and Giorgione, and one of the few artists who had contacts with libertine intellectuals, as well as travelers to Italy such as Gabriel Naudé, Jacques Gaffarel, Otto Tachenius, and Johann Michael Wansleben. I have found other guides in the Germany of the early Enlightenment, such as Theodor Ludwig Lau, a student of Christian Thomasius, who became so radicalized that his teacher could no longer approve of him; and the jurists of Hamburg and Kiel, Peter Friedrich Arpe and Johann Heinrich Heubel, who both exhibited a sort of sublimated radicalism, as we will see. In addition, certain "index fossils" of the intellectual bourgeoisie will play a leading role in this book: the pastor and Hebrew scholar Johann Christoph Wolf, who was banished for a time and watched the precarious heretics surrounding him with the anxiety of a rabbit staring at a snake; the antiquarian and numismatist Charles-César Baudelot; and the Göttingen literary historian Christoph August Heumann, who had obtained a professorship but had had his own brush with precarity because he had long been excluded from academia owing to a youthful "sin"—having expressed too dangerous an interpretation of the Bible. For members of the intellectual bourgeoisie the books and ideas produced by precarious intellectuals presented disturbingly "strange facts," as I will show in chapter 14: weird and repellent speculations that secure scholars had to know about if they hoped to gauge what was possible in their world.

The "alternative intellectual history of the early modern period" that I present here does not, therefore, treat such major figures as Descartes, Spinoza, Leibniz, Locke, or Hume. It describes forgotten or half-forgotten scholars; and not the great topics of metaphysics and epistemology but fringe areas like magic and numismatics, biblical interpretation and natural law, the history of philosophy and Oriental studies; and not just theories but also the emotions, fears, fascinations, and encouragements. For they too existed and helped shape this alternative history.

# INDEX