

Knowledge and Nature: History as the Teacher of Life Revisited

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ABSTRACT

This contribution revisits the dictum “history is the teacher of life” (*historia magistra vitae*) and shows that modern knowledge-societies are beginning to use their growing information about natural and human history to address present-day problems. Starting with Leopold von Ranke’s refusal to investigate history for the benefit of learning from it, the essay cites two contemporary attempts at extracting useful knowledge from history: “real-world experiments” and “natural experiments.” Wolfgang Krohn developed the former with collaborators in Bielefeld and Jared Diamond features the latter.

KEYWORDS

Begriffsgeschichte, Chernobyl, real-world experiments, natural experiments, ecocide, tragedy of the commons



The Ciceronian trope *historia magistra vitae* had reigned for nearly 2,000 years when the epochal upheaval between 1750 and 1850 toppled history as the “teacher of life.”¹ How shall we explain this loss of hitherto enduring power? Was it the French Revolution? No—the demise of the past as the container of exemplary experience had started earlier. Was it the Industrial Revolution? Again, no—the erosion of the received topos and its authority began before the Industrial Revolution had serious practical and theoretical consequences. The best answer, I believe, has come from Bielefeld University via the late Reinhart Koselleck’s *Geschichtliche Grundbegriffe* (1972–1993), a monumental history of key political and social concepts.²

The core point of Koselleck’s historical-theoretical approach to the study of *Begriffsgeschichte* (history of terms) was actually quite simple, and he was not afraid to say so. He recognized two (Western) worlds and distinguished a temporal watershed between them. On one side of the divide lies the modern world, which can be grasped without much interpretive effort,³ while the world of premodern history, which can no longer be understood intuitively, is lying on the opposite side. According to Koselleck, the modern world emerged after 1850, whereas



the opaque premodern worlds reach from about 1750 into the past. His periodization turned the roughly 100 years in between into a time of profound change. Koselleck termed this period *Sattelzeit* (saddle time).⁴

Koselleck (2004a: 32) characterized the paradigm shift from premodern to modern history as “a complex process whose course is in part invisible and gradual, sometimes sudden and abrupt, and which is ultimately driven forward consciously.” The nature of this process was predominantly a gray matter affair, deeply ideological and cerebral; yet as the media of communication externalized this process, it became a social and cultural development that eventually resulted in a collective reordering of things. Koselleck’s *begriffsgeschichtliche Methode* was a sensitive tool for the documentation and analysis of this shift. He could not enter the heads of thinking people with it—what happened in there was one of the “invisible” parts of the historical process—yet it allowed him to detail carefully and diligently important *sprachgeschichtliche Ereignisse* (Koselleck 1979: 54) for the critical time before and after the French Revolution.⁵ Finding the significant quotes was tedious work; he must have been delighted to hear that Google plans to digitize everything that lies dormant in the world’s libraries.

Working like a human seismometer, Koselleck registered the shift of semantic relationships in the breaking up of old continents of meaning as well as a turn from the prevalence of the past to a preponderance of the future. He traced how the old worldviews became submerged under the new horizon of an unprecedented present with an open future on both sides of the Atlantic. An example of one of the many literary events that indicated this coming-into-focus of the future was Tocqueville’s lament in *Democracy in America*: “I go back from age to age to the remotest antiquity; but find no parallel to what is occurring before my eyes: as the past has ceased to throw its light upon the future, the mind of man wanders in obscurity” (Koselleck, 2004b: 280–281, note 31). Koselleck assembled these semantic instances of societal disorientation and reorientation to describe the birth of the *neuzeitlich bewegte Geschichte*⁶ as a “newly emergent temporality” (Koselleck 2004b: 31) of a future-oriented world for which history was no longer the teacher of choice.

An instant in this momentous change is Leopold von Ranke’s (1795–1886) famous dictum about the historian’s task as telling only *how it once was*. The Ciceronian context of this maxim is worth remembering. What Ranke actually wrote in his *Geschichten der romanischen*



und germanischen Völker von 1494 bis 1514 (1824) demonstrates a young historian's plucky irreverence for *historia magistra*. He says, "The task of judging the past for the benefit of future generations has been given to History: the present essay does not aspire to such an elevated task; it merely seeks to show the past as it once was."⁷ Ranke's refusal to venture beyond the facts repositions history as a morally neutral field for quasi-empirical research. Rankean research history no longer teaches us anything but history, and it is therefore impossible not to draw this ironic tautological conclusion: *Aus Geschichte lernt man eben nur Geschichte*.⁸ However, learning from history "for the benefit of future generations" seems to be getting ready for a comeback.

From Chernobyl to Real-World Experiments

The concept of "real-world experiments" is another important contribution from Bielefeld and a case in point for a new approach to historical learning. Between 2002 and 2005, Wolfgang Krohn and his collaborators, Matthias Gross and Holger Hoffmann-Riem, conducted a research project on real-world experiments at Bielefeld's Institute for Science and Technology Studies. Real-world experiments, they postulated, are executed to attack "socially relevant environmental problems under uncontrolled conditions."⁹ Both the subtitle of the project—"strategies for robust ecological design"—and the explanation that "these experiments are associated with recursive learning processes that result in better understanding and increased control of environmental and social systems," underscored that real-world experiments are an attempt to learn from contemporary environmental history from within the framework of contemporary environmental history. Historical actors are thus empowered to learn *from* a history *within* a history. And this is rather exciting. What seems to be happening here is not a return to, or of, the *historia magistra vitae* topos but a novel way of societal learning that aligns our recognition of uncontrolled, out-of-the-laboratory experimentation with the "as it once was" stance of factual historiography developed by the Ranke school. The Bielefeld model of real-world experiments makes room for learning from contemporary history.

The fire that sparked the idea of real-world experiments was the nuclear conflagration on 26 April 1986 at Chernobyl, some 20 years ago. In the fall of that year, Wolfgang Krohn and Peter Weingart interpreted Chernobyl in an article in the *Kursbuch*¹⁰ as an "implicit exper-

iment” (Krohn and Weingart 1986: 1). The title of their paper, “Tscher-nobyl—das grösste anzunehmende Experiment,” was a pun on the acronym GAU (*Grösster Anzunehmender Unfall*), which featured prominently in the rallying cries of the Greens and the German anti-nuclear movement.¹¹ Krohn and Weingart argued that Chernobyl was an implicit macroexperiment, tested in the real world by fatal accident.¹² The transition from “implicit experiment” to “real-world experiment” was the next step. It led to the Bielefeld model of *Realexperiment*, which makes the illegitimate, unethical, and irresponsible conduct of *implicit* experiments *explicit* and thus a matter of public discourse and recursive societal learning.

The progression from the accident at Chernobyl to the *Kursbuch* article and the later research project leaves the positivistic framework of the *neuzeitlich bewegte Geschichte* behind. Ranke’s “factualization” of history in the *Sattelzeit* must be seen in this wider epistemological context. His anti-Ciceronianism was concurrent with the passage from alchemy to chemistry and similar to the transition from astrology to astronomy two centuries earlier. Lavoisier’s method of weighing things and Ranke’s turn from venerable literature to mundane documents were kindred moves. The relativity of historical events, which the demise of *historia magistra* engendered and the historical-critical method reinforced, followed Galileo’s earlier anti-Aristotelian insistence that moon matter is not different from earth matter. The now dated positivism of the historical-critical method was history’s way of scientificization.

The *Realexperiment*, as defined by Krohn and his collaborators, eclipses this modern tradition; it goes beyond the laboratories of physics and chemistry and extends scientific and social-scientific research practices into areas where nature and society interact, as in waste management, landscape design, and ecological restoration projects. Real-world experiments reach out to non-experts, local knowledge, and political constituencies. They track the results of complex socionatural interactions and conscious interventions and generate uncertain but reasonable learning loops. *Historia magistra vitae* may have lost its classical appeal but *vita magistra historiae* might take its place—life’s strategically calibrated progress could become the teacher of human history.

Learning from Global History for Global History

As the ban on historical experience as the teacher of life is lifted in real-world experiments, other kinds of experiments are explored and learn-



ing from history, especially environmental history, is propagated anew, yet, ironically, by a scientist. Brushing aside that historians have learned not to learn from history, Jared Diamond (1999, 2005), a physiologist, has written two best-selling books that use history's "natural experiments"¹³ as learning tools.

Collapse: How Societies Choose to Fail or Succeed, Diamond's last book, is squarely about learning *from* history *for* history. *Guns, Germs, and Steel: The Fates of Human Societies*, his earlier book, tried to answer the question, "Why is it that you white people developed so much cargo and brought it to New Guinea, but we black people had little cargo of our own?" (Diamond 1999: 14). The two books have different objectives but are similar in terms of methodology. *Guns, Germs, and Steel* tries to explain societal success, whereas *Collapse* focuses on societal failure; both books employ comparisons and investigations into natural experiments.

Extending experimental learning to all of history, Diamond proposes to develop learning units for global history. He reinstates the Ciceronian precept implicitly in his belief that "the past offers us a rich database from which we can learn, in order to keep on succeeding" (Diamond 2005: 3). The ambivalent "we" in this statement could mean "we Californians" (Diamond lives in Los Angeles), or "we Americans," or "we in developed countries," or "we as a species." Diamond implies all of it. Knowing that "globalization makes it impossible for modern societies to collapse in isolation" (23), he mines the databases of global history as both a scientist and a concerned citizen, who fears that not only success, but also catastrophic failure, is within our reach. He searches for mechanisms of historical change like a scientist, and from the understanding of such mechanisms, he wants to learn how to solve the world's looming global and local problems. To do so is very ambitious, but Diamond's work seems to ask, "What is the alternative?" Is it not to try "to learn from the mistakes of distant peoples and past peoples" (525)?

The epilogue to *Guns, Germs, and Steel* was entitled "The Future of Human History as a Science."¹⁴ Virtually no living historian would dare to promote the scientific potential of history today; this idea is too unconventional and has to come from a disciplinary outsider. However, undaunted by the critique and dismissal from professional historians, Diamond opened his last book with the question, "How can one study the collapses of societies 'scientifically'?" His argument is epistemological. He takes issue with the unnecessarily narrow misunderstanding of what constitutes science: "Science is often misrep-

resented as ‘the body of knowledge acquired by performing replicated controlled experiments in the laboratory.’ Actually, science is something much broader: the acquisition of reliable knowledge about the world” (Diamond 2005: 17). After a lifetime of experimental laboratory work in physiology at Harvard and UCLA (from 1955 to 2002), Diamond is presumably well versed in the justification of the conventional hierarchy between controlled and uncontrolled experiments. However, his field experience as a hobby-ornithologist taught him about alternative pathways to reliable knowledge:

When I began studying birds in New Guinea rainforest in 1964, I was immediately confronted with the problem of acquiring reliable knowledge without being able to resort to replicated controlled experiments, whether in the laboratory or outdoors. It’s usually neither feasible, legal, nor ethical to gain knowledge about birds by experimentally exterminating or manipulating their populations at one site while maintaining their populations at another site as unmanipulated controls. I had to use different methods. Similar methodological problems arise in many other areas of population biology, as well as in astronomy, epidemiology, geology, and paleontology. A frequent solution is to apply what is termed the “comparative method” or the “natural experiment”—i.e., to compare natural situations with respect to the variable of interest. (Diamond 2005: 17)

The details of Diamond’s study of past failures and successes include the environmental destruction of Easter Island’s Polynesian society, the Native American Anasazi, the Maya, and the Norse in Greenland.¹⁵ Norse Greenland provided Diamond with an “approximation to a controlled experiment in collapses: two societies (Norse and Inuit) sharing the same island, but with very different cultures, such that one of those societies survived while the other was dying” (Diamond 2005: 21). Presently, the Dominican Republic and Haiti face a similar outcome on the once richly forested island of Hispaniola. Both countries are poor but Haiti, which used to be the richer place, has become the poorest country in the New World. Only 1 percent of Haiti is still forested compared to 28 percent of the Dominican Republic. The future looks definitely grim for Haiti but less so for its neighbor (329–357). Success stories include Iceland, the highlands of New Guinea, and Japan. China “lurches” between “accelerating environmental damage and ... protection” (377).

Diamond found three things that modern “knowledge societies” (Böhme and Stehr 1986) may want to consider. First, “unintended ecological suicide—ecocide” (6) was common throughout history. Second, five sets of factors could either prevent ecocide or contribute to



it, namely climate change, environmental damage, hostile neighbors, friendly trade partners, and societal response to environmental problems (11–15). Third, and most importantly, he also found that a society's political and cultural response was always highly significant, with two crucial factors: "long-term planning, and willingness to reconsider core values" (522).

In conclusion, I would say that modern knowledge-societies are in a position to analyze themselves historically but are far away from being guided "scientifically." Carefully analyzed scenarios from the past can extend our event horizon and alert us to critical circumstances we might otherwise overlook. Therefore, real-world experiments with a "mutually agreed upon strategy of experimental learning" (Gross and Krohn 2004: 48) should be employed widely and more often, and useful knowledge about societal performance in the past extracted in greater detail and from more cases to enrich and calibrate contemporary decision making. The reading public is willing to entertain global lessons from history. Overcoming dated epistemological concepts about what constitutes science in order to develop the project of science in the social sciences and humanities may not be enough to avoid ecocide or any other terminal disaster born out of ignorance and political mal- or in-action, but it certainly is a step in the right direction.

The person in charge of the scientific side of the Manhattan project, James Bryant Conant (1893–1978), realized after Hiroshima and Nagasaki that science had become much too important to be left to the scientists.¹⁶ The risk of a global environmental "tragedy of the commons"¹⁷ may well be calling for a similar conclusion: global history is too important to be left to historians that think ill of judging the past for the benefit of future generations.

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between local cultures and world regions as well as the global technoscientific civilization and its natural environment.

Notes

1. Cicero (1942), *De Oratore*, book II, chapter 9, 36: “*Historia vero testis temporum, lux veritatis, vita memoriae, magistra vitae, nuntia vetustatis*” (History is the true witness of times, the light of truth, the life of memory, the teacher of life, the messenger of antiquity).

2. With over 9,000 scholarly pages, the nine volumes of the (Otto et al. 1972–1997) can be overwhelming. However, Koselleck presented the historical-theoretical approach of GG succinctly; see Introduction, vol. 1, xiii–xxvii.

3. The exception is the increasing opacity of techno-science, about which even most historians of modern history are blissfully ignorant.

4. See GG, vol. 1, xv. For an older, yet still instructive, comparative review of GG and the “Cambridge school,” see Richter (1990).

5. The translation as “philological event” (Koselleck 2004b: 35) does not fully capture the sense of “*sprachgeschichtliches Ereignis*” because it lacks the historical dimension of *sprachgeschichtlich*.

6. See Koselleck (1979: 38–66). The expression “*neuzeitlich bewegte Geschichte*” is not really captured by “modernized historical process” (Tribe’s translation). According to Koselleck, the modern historical process is unprecedented and not a modernized version of an earlier historical process.

7. See Koselleck (1979: 31) and Ranke (1874: vol. 33, vi–vii).

8. “One just learns mere history from history,” Radowitz against Hegel; see Koselleck (1979: 49).

9. For this and the following quotes, see <http://www.uni-bielefeld.de/iwt/projekte/realworld/> (accessed 5 October 2006).

10. *Kursbuch* was (and perhaps still is for the 1968 generation) the leading quarterly of the West German intelligentsia. It was founded in 1965 by Hans Magnus Enzensberger and co-edited since 1980 by Tilman Spengler. *Kursbuch*, literally, means route-book; historically, railway-guide; and commonly, timetable.

11. “*Grösstes anzunehmendes Experiment*” could be translated as “greatest supposed experiment” and “*Grösster Anzunehmender Unfall*” correspondingly as “greatest supposed accident.”

12. See Krohn and Weingart (1986: 1): “*Ihr aussagekräftigster Fall ist der Unfall*” (their strongest incident is the accident).

13. Defined as “observations of the variables of the system under study, rather than manipulative control of those variables”; see <http://en.wikipedia.org/wiki/Experiment> (accessed 22 June 2006).

14. Diamond (1999: 403–425, esp. 420–425). Few other authors imagine history as a science; one of them is Frank Sulloway (1996: 365–368), who favors “hypothesis testing.”

15. See Diamond (2005), chapter 2: “Twilight at Easter”; chapter 4: “The Ancient Ones: The Anasazi and Their Neighbors”; chapter 5: “The Maya Collapses”; and chapters 7 and 8: “Norse Greenland’s Flowering” and “Norse Greenland’s End.”



16. Conant, who had been Harvard University president, was chairman of the American National Defense Research Committee (NDRC) in the early 1940s. As U.S. High Commissioner in West Germany, he declared in 1953: “Die Naturwissenschaft ist viel zu wichtig, als dass man sie den Naturwissenschaftlern überlassen könnte”; see Conant (1953: 16).

17. A “tragedy of the commons” (Hardin 1968) results from “a class of phenomena that involve a conflict for resources between individual interests and the common good”; see http://en.wikipedia.org/wiki/Tragedy_of_the_commons (accessed 22 June 2006).

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