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How to cite:

Lange, Sophie. "The Elbe: Or, How to Make Sense of a River?" In: "Storytelling and Environmental History: Experiences from Germany and Italy," edited by Roberta Biasillo and Claudio de Majo, *RCC Perspectives: Transformations in Environment and Society* 2020, no. 2, 25–31. doi.org/10.5282/rcc/9122.

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ISSN (print) 2190-5088
ISSN (online) 2190-8087

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Federal Ministry
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Sophie Lange

The Elbe: Or, How to Make Sense of a River?

I didn't know Hamburg had a beach, but just recently I strolled along it together with a friend. The sun broke through the clouds and made the large river on our left-hand side sparkle and glitter. Romans once called the river "Albis," whereas Teutons called it "Albia." It simply means river. "White water," according to Latin and old German, might also be a possible meaning. As a historian, you are taken on a journey by your research project, a journey involving temporal shifts, changing places, new perspectives, and decoded translations. When I first visited the Elbe, I was aware of what I already knew and curious about what mysteries it would further reveal. This is what happened to me in Hamburg, as I walked along the river Elbe. On this white, shimmering eau a huge container ship glided slowly and silently into the harbor. We enjoyed our *Fischbrötchen* (fish buns), the sun, the view, and the presumed peacefulness.

A Change of Time

Almost forty years ago, this place was not at peace. In 1981, Elbe fishermen and "friends" blocked access to the harbor with five hundred boats, while around fifty thousand environmentalists protested on the streets. The mercury content of Elbe eel had risen to 3,000 micrograms per kilogram of fish, which is about a third of the legally allowed amount. When combined with water, mercury becomes methylmercury. The human body cannot break this down, and it accumulates in muscles, kidneys, the nervous system, and the brain. The consequences of mercury poisoning range from headaches, gingivitis, speech and concentration disorders, nausea, insomnia, hair loss, contact aversion, nervousness, drowsiness, and dizziness, to kidney and liver damage, cognitive disability, and life-threatening disorders of the immune system. The fishermen were banned from selling the contaminated fish under the threat of fines of 50,000 German marks. This actually meant a quasi-professional ban on work and the end of a proud guild.¹ However, the culprit and cause of the contamination was quickly identified: East German factories.

1 "Elbe: „Wir hängen jetzt total auf Null“,“ *DER SPIEGEL*, 25 May 1981, 52–57, <https://www.spiegel.de/spiegel/print/d-14333614.html>; "Bi de Bux," *DER SPIEGEL*, 15 March 1982, 86–89, <https://www.spiegel.de/spiegel/print/d-14335705.html>; "Der Geist aus der Flasche," *DER SPIEGEL*, 24 August 1981, 62–76, <https://www.spiegel.de/spiegel/print/d-14339131.html>.

As an environmental historian, my dissertation project is about the environmental-political relations between the Federal Republic of Germany (FRG) and the German Democratic Republic (GDR), so I mainly analyze documentation relating to expert meetings and talks between these two German countries. The Elbe is the focus of one of several environmental conversations that took place between both sides in 1983. And as historians often say, things are not as simple as they seem. In searching through old files, documents that had been classified or marked for official use only, I try to translate the information of the past to enrich existing knowledge with previously unknown material. Such investigations not only transform knowledge about the past but also disenchant myths, deconstruct preconceptions, and question cherished narratives. Yes, East German factories heavily polluted the Elbe. This became apparent after the fall of the Berlin Wall when the companies were closed and the river slowly recovered. Yet, in 1983, the West German government could hardly put any pressure on the GDR given that the West's internal south-north flowing Rhine shared approximately the same levels of mercury pollution as the Elbe. There was also only one monitoring station located at Schnackenburg (FRG), directly behind the inner-German border on the western side. As this station was located so far to the east, it did not reflect true pollution levels, making the truth hard to discern. At the same time, Hamburg remained silent about the amount of pollution generated through its own industry and harbor. Environmental historians must unravel the truths about the past—but how, when sources are incomplete or unreliable? One possible way to overcome these obstacles is by crossing disciplines and translating. While this is a difficult task, it is worth it, as it has the potential to disentangle the complexities of environmental history, revealing a comprehensive historical narrative.

A Change of Perspective

I had not been to Wittenberg until a friend celebrated his birthday there. This famous small town, located on the Elbe in Saxony-Anhalt, formerly in the GDR, also hosted Martin Luther during his studies at the University. We enjoyed a barbecue in a riverside garden with a relaxed view to the torrent. Instead of swimming and risking getting caught up in the rapid current, we sat on the wooden landing and let our feet dangle in the water. The river flows fast and has a yearly average outflow of about 870



Figure 1
The Elbe river at
Wittenberg, summer
2019 (Source: Author)

cubic meters per second at its mouth (368 cubic meters in Wittenberg), or about three to five kilometers per hour. In Magdeburg, the Elbe can at times reach an outflow of eight kilometers per hour depending on the water level.

A river is not just a river. A river has a beginning, a spring. A river has floodplains, whirls, and rapids, as well as shallow and deep stretches. And a river leads to something—most often to the sea. Our white waterway begins in the Riesengebirge (Giant Mountains) in Krkonoše in the Czech Republic. After 370 kilometers it enters at Schmilka into German territory, or—in divided Germany—the GDR. When West Germans accused East Germans of polluting the river and causing fish mortality and other problems in Hamburg, East Germans pointed out that the GDR did not share the same problems as Hamburg. They argued with the tide. The Elbe flows quite quickly through the GDR. This means there is little chance of self-purification along the way. The water needs five days to flow from Prague in the Czech Republic to Geesthacht,

a city southeast of Hamburg. Between Geesthacht, Hamburg, and the North Sea, the water needs about twenty days, as it goes back and forth with the ebb and flow from the coast.² With this in mind, geology provided me with a fact-checking source.

A Change of Language

As an environmental historian, I have to alter my perspective in order to interpret stories from very different sources—from numerical data and foreign languages to different classification systems. Putting the pieces of a story together leads to questions, not just about the sources themselves but about the subjectivity that governs how they are interpreted. This in turn can open new doors of enquiry, but it also raises challenges. I was thinking about my topic and new found interest in geology when I visited two different locations on the Elbe. I checked the flow of the river's current at Wittenberg and the marks of the tide in the Speicherstadt (the warehouse district) in Hamburg. I hope to transform these observations and impressions into an academic language that is understandable for environmental historians, yet also, first and foremost, for non-environmental historians and those who may have no background in history or the natural sciences.

Keeping these firsthand experiences in mind will hopefully turn “dry” facts into a comprehensive historical narrative. Having no formal higher education in the natural sciences myself, I was as surprised by the geological variability within the river as my potential readers might be. On the one hand, lacking this scientific knowledge might provide an opportunity to identify interesting issues and contexts that might be too broad or peripheral for a specialist in the discipline. On the other hand, it also carries with it the danger of having incompletely permeated this biological, chemical, and geological complexity, and thereby spreading underdeveloped interpretations. Am I right in questioning natural scientists' analyses and comparative methodologies in relation to pollution levels in the Elbe? To what extent can one compare the pollution levels of the Rhine and the Elbe by using differing measurements: one week of a year

2 Bundesinnenministerium, “Protokoll über das Expertengespräch zwischen der Bundesrepublik Deutschland und der Deutschen Demokratischen Republik über die Verschmutzung der Elbe, Referat U I 4,” in *Political Archive in the Foreign Office (PA AA): ZA, B 38, Vol. 132688*, (Bonn: Bundesinnenministerium, 1983); “Sauerstoffloch in der Elbe – eine Analyse, Rettet die Elbe,” December 2005, https://www.rettet-die-elbe.de/5kapitel/o2loch/o2loch_analyse.html.

for one river and the yearly average for the other river? Translating and interpreting multifarious bits of evidence is a tightrope walk between diverse disciplines that lies at the feet of all environmental historians.

Alongside the language of academia and that of the natural sciences, a German environmental historian has to switch easily between at least two languages, in this case German and English. The more languages, in fact, the better. English is not my mother tongue, but I still try to present my work at English-speaking and thus international conferences. Some might think a presentation about German rivers in English sounds a bit specialized, especially for an audience without any particular ties to the place. However, in academic circles, examples such as the Elbe River also bear “translations” relevant to other people’s research. For example, rivers at borders always inherit an upstream–downstream conflict, the frameworks of which can be transferred from one river to another, helping to identify similarities or differences. West Germany had an interest in starting talks with the GDR about river pollution because 90 percent of the rivers within our (now reunified) country flow from East to West. It may be worth looking at these examples in contrast to the Danube, which has its spring in the West and flows to the East. Here, motivations and interests move from one side of the former Iron Curtain to the other, but the problems are similar and remain part of upstream–downstream conflicts.

One might think that the study of German-German relations is relatively simple in comparison to German-Italian or French-Spanish relations, as the two (former) countries share a common language. Yet there is still a surprising amount of translation work to be done. In this case, it begins with two different classification systems for evaluating river pollution: the GDR had one grade more than the Federal Republic, which had five pollution level grades. When West German experts talked about river quality, they were referring to the pollution of *the sediments*, whereas East German experts understood river quality as a measure of toxins in *the water*. Having the same language does not mean that one is speaking about the same thing—especially not in a divided country where ideological differences are influencing the language. For this reason, a deeper exploration of the types of dialogue, forms of communication, and the language used between the GDR and the FRG might enlighten our understanding not just of the environmental differences, similarities, successes, and failures of the time, but also of the ways we understand German society and perceptions of the environment today.

A Change of Environment

Speaking of East and West—the border and the river, the disciplines and languages—the translational work of an environmental historian seems to be a never-ending story. The tales of rivers and their pollution are not confined to the riverbed, either. They also connect different (nation) states and cross borders without customs and passport controls. They link water, air, and soil to each other. The Elbe carried metals and toxic substances from production sites in the ČSSR and GDR to Hamburg and the North Sea. Mercury, cadmium, and other dangerous elements were deposited in the sediments. The city of Hamburg excavated these sediments to enlarge their port. In earlier days, this silt was taken to the countryside around Hamburg to fertilize the fields. By the early 1980s, when this became ill-advised due to the high level of toxic materials in the silt, it was instead brought to a landfill site. This landfill was located in Schönberg—a city in the GDR close to the inner-German border and not far from the West German town of Lübeck.³ People in the nearby Federal Republic feared that this dumpsite was leaking and that the seepage, enriched with toxic metals from the silt, would reach the groundwater and “travel” back to the Federal Republic. The same could happen with toxic emissions from the dump blown by the wind above and over the Wall. Thus, the mercury from the Elbe changed from water to soil to water to air. Nature “knows” about this—and it is the job of environmental historians to uncover the winding paths of man-made pollution.

“Wind of Change”

The voice in the song “Wind of Change” by the Scorpions followed another river, the Moskva, “down to Gorky Park.” But the wind of change in 1989/90 actually brought about real changes for the Elbe. After the reunification of Germany, the international river that once crossed three countries now crossed just two. The upstream–downstream conflict changed from the inner-German to the German-Czech border. The river has since recovered to the extent that bathing and fishing is once again possible. Some of the toxic silt from Hamburg’s port is still being deposited in landfills though. There, the Elbe inherits the ecological memory not just of a divided Germany but also of World War

3 Sophie Lange, “A Deal over Dirt: Worldwide Waste,” *Journal of Interdisciplinary Studies* 3, no. 1 (2020): 1, <http://doi.org/10.5334/wwwj.35>.

II and previous periods of industrialization. Each period of time has its own (toxic) substances.⁴ What was once mercury, an inorganic material, during the period of the Cold War, is now a range of organic substances stemming mainly from agriculture and pharmaceuticals. The water, the geology, and the silt of the Elbe contribute another source to the environmental historian's dusty archives, each waiting to be found and translated into a (his)story. As I said, a river isn't just a river, and this one even has a beach!

Further Reading

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4 Axel Schröder, "Endstation Hafenbecken. Giftiger Schlick in Hamburg," *Deutschlandfunk*, 12 June 2018, https://www.deutschlandfunkkultur.de/giftiger-schlick-in-hamburg-endstation-hafenbecken.1001.de.html?dram:article_id=420169.