

Pfister's Spill? Narratives of Failure in and around Wilhelm Raabe's 1883 Eco-novel

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Abstract



This paper explores different aspects and layers of failure in Wilhelm Raabe's *Pfister's Mill* and its cultural context, which is closely related to German discourse on the environment in the second half of the nineteenth century. Raabe sought to draw attention to and inspire solutions for a pressing environmental problem of the day by conveying perceptions of everyday sensual experience in culturally communicable form. His aim was to use the novel as a means of communication about the processes whereby "socio-natural sites" affected by industrial pollution were being transformed. The author's ultimate inability to realize this aim, the paper argues, should be understood less as a failure of literary form than as a consequence of an inherent feature of the public discourse on political ecology of the time: the tension between popular support for progress and industrial development on the one hand and growing environmental awareness within a limited range of political action on the other. Drawing not only on literary, but also historical sources, the paper seeks to (dis)entangle the complex net of relations around a classic of German environmental literature.

Keywords: Wilhelm Raabe, pollution, narrative, science, public discourse, socio-natural site.

Resumen

Este trabajo explora diferentes aspectos y secciones relativas al fracaso en la obra de Wilhelm Raabe *Pfister's Mill* y su contexto histórico, el cual está estrechamente relacionado con el discurso alemán sobre el medio ambiente en la segunda mitad del siglo XIX. Raabe trató de llamar la atención y esbozar soluciones respecto a un problema medioambiental de alta importancia para aquellos días, siendo su objetivo transmitir y analizar las percepciones a través de experiencias cotidianas de carácter sensorial que se hacen manifiestas culturalmente mediante la comunicación. Su objetivo es utilizar la novela como un medio de comunicación de los procesos que provocan transformaciones en "enclaves socio-naturales" afectados por contaminación industrial. La incapacidad en última instancia del autor para alcanzar este objetivo hace que el presente ensayo no deba entenderse como un fracaso de la forma literaria, sino como una característica inherente al discurso público sobre la ecología política de la época: que se fundamenta en el cambio de percepción popular del medio ambiente. Se refiere no sólo a documentos literarios, sino también a fuentes históricas, este trabajo pretende desentrañar una compleja red de relaciones en torno una obra clásica de literatura ecológica alemana.

Palabras clave: Wilhelm Raabe, contaminación, narrativa, ciencia, discurso público, enclave socio-natural.

The Sample

Literary critics offer a variety of interpretations of both *Pfister's Mill* (Raabe 1883) and its author, often not only contrasting, but contradicting each other. As this suggests, Wilhelm Raabe was a complex writer, and his work was and is difficult—maybe intentionally difficult—to grasp. Critics, however, agree on the artistry of his writing, including the beauty of his meticulously constructed sentences and narratives, which invite readers to analyze and deconstruct them word by word, one level after the other. While this has made him a classic author of nineteenth-century poetic realism, it has undoubtedly contributed to the difficulty his works pose to his readers, both now and then. Like the written word, pollution knows no boundaries. And as Sabine Wilke's reading of *Pfister's Mill* within the framework of a newly emerging "toxic discourse" suggests (198), pollution as a poetic practice invades and colonizes the language of Raabe's realist fiction, which is eventually overpowered by the environmental degradation it depicts (208). With its proliferation it spills the news of a toxic presence in the novel and the world it represents.

During the second half of the nineteenth century, the lowlands of the Duchy of Brunswick in Northern Germany emerged as a prime sugar beet growing area due to the fertile topsoil in the broad Oker river basin and its many tributaries (Neuber). The crop became increasingly important as Germany attempted to become less dependent on imported cane sugar products. In order to enhance productivity, a number of sugar refineries were established in the vicinity of the agricultural production sites. As demand for their produce grew, these factories mushroomed all over the Duchy. While they contributed to a prospering economy, they also led to growing populations of sulfur-affine microorganisms with their output of organic effluents, which were soon to overwhelm the self-cleaning capacity of river systems within this socio-natural site. Consequently the flourishing sugar industry had a negative impact on small businesses that depended on fresh water supply or generated mechanical energy from the river flow. More disturbing for the general population, however, were the aesthetic effects of river pollution, its visual and olfactory consequences.

In the early 1880s, a group of intellectuals and artists who called themselves "Die Kleiderseller" (The Clothes Sellers) would wander from the city of Brunswick to the garden of a small country inn every Thursday and Sunday, enjoying the countryside and debating political ideas (Oppermann, *Wilhelm Raabe* 85). As one of the regular attendees and co-founder, Wilhelm Raabe had made the group his intellectual home after moving back from Stuttgart. He spent some very productive years there, during which he began to address issues of industrial river pollution in his writings, most importantly in the novel *Abu Telfan* (1867) (Onwuatudo Duno 96) and, just a few years later, in his novella *Die Innerste* (1876). Heinrich Beckurts, a young scientist who immersed himself in the study of chemistry and

biochemistry, occasionally joined the gatherings. He felt these sciences could contribute to solving the growing sanitary problems of his hometown. One fall afternoon, the two men became engaged in a lively discussion about the impact of the sugar industry on the fields around Brunswick. Every week, they would walk along the River Wabe, a side arm of the Oker River, which turned into a bubbling, slimy sewage channel, depending on the season, weather, and sugar beet harvest. Aesthetic obstructions troubled the flaneurs, but the Kleiderseller were even more concerned about the impact of the water pollution on flora and fauna, and the traditional economy of the rural area. As it turned out, Beckurts had some interesting facts to share with his novelist friend. He had been called in as an expert adviser for the lawsuit brought against the perpetrators of precisely the environmental offences Beckurts and Raabe were so up in arms about.

The probably best-known fact about the 1883/84 novel *Pfister's Mill* is that Raabe borrowed Beckurts' copy of the court files for a few days and wrote the piece based on them (Popp). For example, he directly quoted from the bio-chemical analysis that served as evidence to convict the owners of the "Aktienzuckerfabrik Rautheim" ("Krickeroode" in his literary interpretation). In the novel, the effluents from the sugar factory pollute the stream next to Pfister's mill, which is also a tavern with a beer garden. As tourists from the city cease to frequent the establishment, the old man finally decides to sue the company. His case is supported by a lawyer who hopes to enhance his reputation, and a befriended young chemist named A.A. Asche, who is to become an ambitious entrepreneur. The story of how the pollution is first detected, gradually worsens, is then demonstrated by scientific water analysis, discussed by the miller and his friends, and finally settled in court, is told in retrospect by the miller's son Eberhard during his final summer at the family home. It is "final" because the mill is soon to be demolished and replaced by a chemical factory.

The plot is simple, but characteristic for Raabe's style: he aimed at evoking deeper layers of meaning among an informed audience by the use of associations spiced with a mix of allusions, for example to sulfane and other chemicals (Helmers, "Die Verfremdung" 20). Already in 1925, biologist August Thienemann wrote a short essay about the novelist's stance towards sewage-water analysis. Besides providing factual background on the scientific state of the art, he examined the role chemist Heinrich Beckurts played in the development of the novel. Thienemann found it remarkable how Raabe stressed the importance of hydrobiology as a natural science with practical relevance, although it was not at all well established when *Pfisters' Mill* was published. In contrast to the historical case, Raabe's fictional chemist A.A. Asche (German for "ash"), whose work is responsible for the successful outcome of the fictional lawsuit, refrains from chemical analysis and merely examines the water samples under the microscope (Vaupel 82).

This method of measuring water pollution based on the existence of certain microorganisms was developed by Professor Ferdinand Cohn during a Cholera

epidemic in Breslau in 1852. Remaining the unchallenged expert in the field, Cohn had also been asked for expert opinion by Beckurts in support of his testimony in 1883, and Raabe pays tribute to the scientist in his *Mill* as “friend Kühn” (German for “bold”) (Hoppe 183). Even though Cohn produced many spectacular results with his research, it was not until the turn of the century that the method was commonly established. Soon enough, however, hydrobiology was specialized with limnology as the new field of expertise for industrial pollution cases, due to a metaphorical explosion in knowledge about microorganisms and measuring techniques. In this respect, Raabe’s narrative can be seen as surprisingly prescient. The main agent in this bacterial takeover of the Brunswick landscape is *Beggiatoa alba*: its natural behavior of accumulation and exchange of chemicals represents a mode of proliferation similar to that of capitalist economy (Wilke 208).

Raabe seems to have shared some of the scientific curiosity that had driven Cohn in his research, as Brigitte Hoppe found when reading the latter’s private papers, which Raabe did not know of course. In his chapter “Vater Pfisters Elend unter dem Mikroskop” (Father Pfister’s Misery Under the Microscope), the fictional chemist comically explains:

The Schulzes, Meiers and other families may have ceased to frequent Pfister’s mill, but you still have the Schizomycetes and Saprolegniaceae families in cheerful abundance, and if these are unable to brew coffee in Pfister’s mill, they possess the laudable ability to brew the nicest hydrocarbons from the salts dissolved in Pfister’s millrace in no time. (PM 94)

In 1852, Cohn had written:

This winter I am mostly studying ... Systematic Botany... By the way, I am quite enjoying acquainting myself with the families and their kinship. They actually include many interesting facts and intellectual connections; it’s only a shame that new and beautiful things can’t be seen at first glance, as when you peek into a microscope for pleasure. (Hoppe 167)

This “playfulness,” seemingly inherent in some early natural science, might be one of the reasons why Raabe ventured onto the terrain of naturalism in his “Summer Notebook” and the subsequent 1885 novel *Unruhige Gäste* (Lensing). For the greater part of his career he rejected literary naturalism with its interest in “typhoid smells.” He had subscribed early to literary realism and remained loyal to it, despite his increasing criticism of it, or rather the parts of society associated with it. On the other hand, he was greatly interested in the latest scientific and philosophical achievements and curious about their influence on the future development of German society. As a result, his repertoire of poetic forms was incapable of depicting these problems (Sammons), and his stylistic experiments have been regarded by some as glimpses of literary modernism (Wilke). The vital role Raabe nonetheless assigned to science and technology in his work is revealed in his response to a congratulatory letter received from the Technical University of Brunswick on his seventieth birthday: “If his [Raabe refers to himself] writings have life, they verily owe this to technology, and “Pfister's Mill” especially would

surely not exist, had the Carolina-Wilhelmina Technical University not helped him with it!" He goes on to explain that "[h]is [Raabe's] characters wander not only on golden clouds: they have soil and rough paving beneath their feet, they till the land, they make things in factories, they worry ~~to death~~ [crossed out by the author] about the pollution of rivers. How could that have been so, if exact science had not extended its hand to him?" (Nachlass H II 10 122).

The Petri Dish

Raabe offered a detailed description of a form of pollution that went practically unnoticed at the time and had not yet been described scientifically (advanced scientific analysis was to be a significant step towards tackling water pollution). As Horst Denkler and others pointed out in the late 1980s, this marked his achievement as the author of the first German "eco-novel." As I have argued elsewhere, Raabe's special focus on environmental awareness, combined with his reflection on the social consequences of pollution, can be regarded as constitutive for the genre. With the awakening of activism in Germany in the 1980s (i.e. almost exactly a hundred years after its publication), his "stinky and smelly book," as Ernst Rodenberg had called *Pfister's Mill*, finally reached a wider audience. Failure to attract public attention to the problem of industrial water pollution had frustrated the author for years. Especially as he was convinced that he had his finger on the pulse of the time and his work was to become a landmark among critical writings of the kind, when he had just finished the manuscript (Reuter 180).

Raabe's usual publisher Julius Rodenberg could not deny that the topic dominated everyday life in many places throughout the German Empire. But he was convinced that its graphic description in *Pfister's Mill* would not be appreciated by his readers. Consideration of their feelings (and their manifestation in sales figures) was not, however, the only reason for his rejection of the manuscript (Koller 142). He wrote:

This is not to say that everyone will think and feel the same as I do; others may experience it differently, as what you are depicting is undoubtedly a fact of real life and has as such the right to be represented. But in matters of taste as well as in matters of morals, a responsible journal publisher is, in my opinion, obliged to risk as little as possible; even more so, as the unpleasant and dubious impression cannot be mitigated through a quick succession of new ones, but would rather be aggravated by the interval of weeks in this kind of publication. (Nachlass H III 10 2)

Despite his responsibility for keeping the business in profit and the obligation in matters of taste and morals to which he alludes, the work seems to have pleased him in general. He did not dismiss the manuscript for its narrative composition, which he acknowledged would temper readers' feelings. Soon after his negative response, Rodenberg wrote to the author: "Until the point when it starts smelling nauseous in Pfister's mill, everything had gone well; from this point onwards, however, I could not proceed, and as much beauty as the subsequent chapters may

have contained (...) in the end I only felt this disastrous smell, tainting my joy in *Pfister's Mill*" (Nachlass H III 10 2). Raabe had hit a nerve. Rodenberg liked it, but could not like it at the same time. With his statement, he clearly admits his hesitation to leave it to the readership whether they would like to engage in the discourse around current environmental problems or not. With their role in public discourse, publishers made pre-decisions for contemporary literary taste, deciding what was made accessible to the German market. And the author himself had no way of predicting whether the *Mill's* theme would offend public taste or not, as he wrote to a friend (Nachlass H III 10 56).

Raabe's confidence in the potential of his work appears to have suffered with the difficulty he experienced in getting it published. He later wrote to a friend that, "even if I myself do not have a bad opinion of this work, I cannot tell what the audience will think of it" (Nachlass H III 10 2). In the opinion of Germany's two main publishing houses (Rodenberg and Westermann) at least, the middle class readership targeted by their books and journals was not yet ready to be confronted with environmental topics in literature. This would have been equivalent to criticizing the effects of industrial production and would have undermined their self-image. The myth of the "Founder's Boom" (Gründerzeit), in reality a shortlived phase of economic growth triggered by the high reparations from the Franco-Prussian War, still prevailed at this point. Having been disillusioned by the slow demise of liberal ideals after 1871, Raabe believed the middle class had become an even more important stabilizing element for society, and blamed its members for their political ignorance and cultural disintegration (Manthey 82). But what frustrated him most was their embrace of capitalist values while devaluing everything and everyone they had considered invaluable before (Onwuatudo Duno 95). In this particular case what grieved him must have been their (sometimes) unwitting acceptance of ecological sacrifices in support of the German (beet sugar) industry.

The novel was not reprinted until 1893, ten years after its initial publication. At the time, Raabe had managed to place it in the realist-conservative journal *Die Grenzboten* with Johannes Grunow, who also arranged for it to appear as a book. After five days of inspection he agreed to its publication, calling it the "dearest thing." But it took him ten years to sell the first 1,500 copies. He told Raabe as much when the author inquired about a reprint. The publisher of the new edition, however, the author's long-standing friend Gustav Janke, suggested it himself, assuming the book would be valued more by the audience at this point, because of "the persistent fouling up of the rivers" (Nachlass H III 10 3). It seems that Janke was not only persuaded by the natural volatility of (public) opinion, but that his awareness of the problem was also based on personal experience in New Brunswick, where the sugar industry flourished without notable legal regulation. Although new technologies for sewage water cleansing were introduced and even became mandatory, the fines were too low to effect change (Neuber).

Hydrobiologists of the area, with Heinrich Beckurts at the forefront, continued testing water quality and rallied to induce changes when they saw public health in danger. Nonetheless, during the winter 1890/91 the Oker basin became so severely polluted that its water was unusable as potable or even non-potable water (Beckurts). Wilhelm Raabe described it in a letter to his daughter Margarethe as “[a] veritable pigsty! We don’t wash ourselves, we don’t brush our teeth, even through a cooked meal one can taste the Oker water, spoiled as it is by 12 sugar refineries: Pfister’s Mill in most horrible perfection!” (Nachlass H III 10 57). The author may have felt a degree of personal satisfaction at this point. Following this environmental disaster, the Brunswick municipality at last introduced a minimum size for sewage farms attached to sugar plants, a decision notably influenced by the research of Heinrich Beckurts and his colleagues. A general change of opinion may have been fueled by the upwind of the social-democratic party, which had begun to integrate environmental issues, especially concerning the destruction of landscapes, into political discourse in the 1880s. In the mid-1890s this was reflected in the founding of the Viennese “Naturfreunde” (Friends of Nature), who sought to bring factory workers back into contact with nature (Zimmer 159). Still, the historical cultural fabric of the novel, as defined by Steven Greenblatt (4-5), in this case failed to openly acknowledge the dangers of industrialisation both for the environment and human beings.

The Matrix

From the perspective of environmental history, Wilhelm Raabe’s characters’ individual struggle against the omnipresence of toxicity is part of the story of the transformation of the “socio-natural site” of *Pfister’s Mill*. Wilhelm Raabe had hoped to create a novel that would have a positive effect on the negative changes he perceived in New Brunswick. But *Pfister’s Mill* can be interpreted as a failed attempt to shape the region’s environmental history.

Socio-natural sites, as defined by Verena Winiwarter and Martin Schmid (2008), are constituted by a feedback loop of human practices and their material precipitation. The concept can be applied to both fictional and non-fictional settings, and helps to clarify the role of Raabe’s work within the socio-political context. Theoretically, the term ‘socio-natural site’ draws on Bourdieu’s theory of practice and Schatzki’s concept of social sites, aiming to dispel the Cartesian presentiment often underlying spatial concepts. Thus, a socio-natural site encompasses all changes in a living environment, including the introduction of a sugar refinery to an area and the consequences thereof. The specific arrangements of humans adjusting to these circumstances are then to be seen as their material result, like the final demolition of Pfister’s mill, or Wilhelm Raabe choosing to write about organic water pollution as an indicator of societal transformation. In his and young Heinrich Beckurts’s case, sensory perceptions and their cognitive processing

lead to practices of artistic and natural-scientific engagement. Their material representation, whether it be in the form of a novel or an expert report, is enabled by and asserted through processes of communication. In turn, this communication leads to a change of practices, and the cycle starts anew. The old mill is replaced by a chemical factory, new industry leads to new pollution, and the future remains to be discovered. According to the idea of socio-natural sites, Wilhelm Raabe's novel transforms the author's ideas for improving the environment of "his" site around the city of Brunswick into culturally communicable content (Winiwarter 162), at a time in German realism when spaces had already become more than mere locations (Nünning 46).

Given his long-lasting frustration with the novel's reception, it is safe to assume that Raabe had wished to make an impact with his writing, ideally spurring German society on to fight against industrial environmental pollution. Just as reparations after the Franco-Prussian War had promoted the "Founders' Boom," a high concentration of organic phosphates was promoting the growth of certain microorganisms. While acknowledging the limited scope for political maneuver of German citizens in the Kaiserreich, he sees it as the responsibility of authors to act as social critics, offering and inspiring to new possible solutions of contemporary problems. For the case of industrial water pollution, he presents two interwoven strategies: Firstly, legal action was to be taken. Based on scientific analysis, acute cases of pollution could be stopped, and based on precedents, future pollution could be prohibited. Secondly, general environmental awareness needed to be raised. This was to be achieved through holistic understanding and scientific knowledge of the environment by means of general education or practical experience.

The author failed, however, to make his ideas accessible to a wider readership, and his writing had little immediate impact. Passages in an experimental style, corresponding strangely with stylistic transformations which were just being initiated in literature and the arts, upset his old audience, the readers of the *Grenzboten*, who were neither receptive to nor interested in this kind of story, without being able to reach a new audience. As a historical document, the novel is consequently to be interpreted as an example of what Rita Jungkuntz-Höltje has called the crisis of culture and consciousness of the outgoing nineteenth century (38), or rather its victim.

The novel can thus be considered to have played little part in the general process of improving the socio-natural site of New Brunswick, let alone Germany. This is not, however, to imply that Raabe failed to accept change and progress, or even their environmental implications as integral parts of his own reality (Detering 20). He anticipated the danger of chemical pollution and its future hazardous complications; especially should they remain unrestricted by legislation for too long. In order to adjust to the current state of the non-fictional site, he focused on the inhabitants of his fictional site, who are confronted with changes in the

traditional meanings of things (Thürmer 85) which would eventually result in changes in their inner life (Clark 98). These would in turn change the future state of the socio-natural site(s). It is merely that Raabe's complex narrative made it difficult for his message to reach an audience whose own personal realization process was probably similarly tricked and delayed by the transition from visible to invisible environmental risks. In this sense, he anticipated aspects of Ulrich Beck's conception of the risk society.

Raabe quotes from the final verdict of the civil chamber of the Regional Court of the Duchy of Brunswick from March 14, 1883, directly in the narrative text. This celebrates Pfister's victory over the sugar producers, who were to stop emitting pollutants, pay compensation, and ensure they caused no future nuisance (Civil process). But only two weeks after completion of the manuscript, the sued party successfully lodged an objection, which more or less levered out the previous verdict. As Raabe was having difficulty in selling his manuscript he could—hypothetically—easily have spiced up the story with some additional zest. But he ignored this development, possibly as it would have interfered with his proposing of legal intervention as a strategy to mediate environmental pollution conflicts. At a time when the freshly unified Kaiserreich was reconfiguring its judicial system, and preparing a German Civil Code, this optimistic belief in legal solutions should also count as a positive stance towards modernization, something which he has often been denied. As Manthey concludes, this omission on the author's part catered to the readers' desire for an optimistic outcome (96). For the literate and well-educated members of his audience, however, Raabe undermines this superficial optimism in the final sentence. When the newborn son of the ambivalent A.A. Asche is bawling in the crib, the author alludes to the failure of humanist values and education, cleverly utilizing the words of Pfister's "ideational heir" in order to express the tension within German society: "Well, well, I have polished my Greek, and read my Homer every now and then, by the way, without intending to lift his indelible sun's frayed quote out of the disinfectant vessel" (PM 188). The intertextuality of this reference to a passage in Friedrich Schiller's work and its adaptation by Theodor Storm, and its display of Wilhelm Raabe's cultural pessimism, have been thoroughly researched by John Pizer among others. As Sebastian Susteck suggests for Raabe's *Chronik der Sperlingsgasse* (1856), such episodes should be read as infused by a contemporary realist pessimism, which struggled to accept the world in such an undesirable state (45). It is likely that within the 27 years since Raabe's debut novel, the state of mind Susteck identifies would have undergone individual changes, but manifested as a general feeling of the period. Raabe's oeuvre, however, seems to become more relaxed in his later works, which are also marked by humor and experiments in writing style. This was not, however, what people expected from his writings, which have commonly been subsumed under the heading of poetic realist pessimism. His readership had another vision for the socio-natural site in question and was not receptive to

alternatives.

Evidence of this tension can for example be found in the response to *Pfister's Mill* of a contemporary critic, who wrote:

As with all poetry, we are happy that Raabe's writing is free of political tendency. The waves of political and social questions do not cloud the clear tide of his idyllic scenes, and reading them offers a consoling certainty in the midst of the oppressive circumstances of our time; namely that fears of an inevitable decline of spiritual values, emotion and poetry in the face of the material forces of our present are unfounded. (Nachlass H III 10 32)

He seems completely oblivious to the author's intention to formulate his novel as a social and political critique. Whether this is attributable to a bias towards poetic realism, Raabe's work in general, or *Pfister's Mill* in particular, can only remain speculation. But in the course of the review it becomes apparent that the critic's objectivity is hampered by the figure of the chemist Asche. In his eyes, Asche's "little poetic business" of a chemical dry-cleaning factory in close vicinity of the dying mill conserves "a youthful freshness in its idealistic conception," as he puts it. This very much resonates with Sabine Wilke's illustration of the poetics of pollution in the novel. The critic finds it remarkable how Raabe never attempts to force upon his reader "the so-called poetic, the imaginative," which seems a red flag to him. Besides revealing his literary taste, it can also stand as an indicator of his place in the political-ideological spectrum. In his eyes Raabe very successfully ascribes poetic appearance to the depicted reality, by integrating values into his textual design. Thereby he fails to detect the author's sarcastic, sometimes even cynical undertones in this "swan song of romanticism" (Nachlass H III 10 32). Thus the critic reveals himself as one of the ignorants Raabe had wanted to nudge into greater recognition of the injustices and environmental damage incurred in the process of industrialisation through his text. Critical reflection on the social and ecological reality of the Kaiserreich would ideally have led to acknowledgement of the widespread existence of socio-natural sites subject to industrial water pollution.

New Brunswick not only had fertile topsoil to offer for beet sugar production, but also a dense network of rivers and streams that supported the industrialisation of agriculture, providing fresh service water while serving as natural drain pipes. Due to their shallow beds and slow flow, however, their ecological capacities were more limited than initially assumed. The much praised self-cleaning capacity of rivers was exhausted relatively quickly, resulting in natural sewers meandering through the landscape as depicted in *Pfister's Mill*. Given the abundant presence and importance of water in and for the area, the duchy had already adopted a body of water laws in 1876, the first of its kind in Germany. Raabe must have known about this, given his engagement in local politics. And the state's reliance on natural water resources also contributed to the engagement of staff at the Technical University like Heinrich Beckurts, who researched water hygiene, aside from its becoming a fashionable topic in science at the time. On the

basis of property rights, relations between neighbors, and related access to clean water resources, the state law provided access points to file against pollution which went beyond the levels “customary” to a place. Yet the 1871 federal commercial law, which was based on the Prussian state law from 1845 concerning industry and commerce, did not provide public water security, but regarded all industrial emission as tolerable (Koch). This way financially potent factory owners were able to lever out restrictions to their business, if they initiated revision procedures up to the higher federal courts (Civil process). Although ecological realities had already changed in the 1880s, industrial development was still being perceived as the main paradigm of modernization, and thus contributed to keeping alive the myth of the “Founders Boom” at the cost of clean water resources.

It can be argued that Raabe’s positive stance towards his home state’s water law indicates a kind of nostalgia for the “old days” before unification, but it can also be interpreted as encouragement to make use of the great diversity in state traditions in order to enhance the judicial and industrial system of the young nation state. The latter seems more likely, as the novel’s characters as well as its narrative seem to fail in preserving traditions, keeping values, and maintaining a sense of romantic idyll, which is revealed as a mere shadow of its former self. Realities had changed, and needed to be accepted. Through his sharp voice, Raabe, in different pitches, deconstructs, alienates, and ridicules it, thereby violating genre conventions, including the idea of closure (Wilke 200). This of course can be interpreted as another way of conserving a romantic idea of nature. The satirical criticism which he is more likely to have intended—and which also set the tone in his proceeding novella *Prinzessin Fisch* (1883)—of a general contemporary oblivion towards industrial environmental impacts, fails to make itself clearly heard. Maybe it is embedded in the German nostalgia which was so typical towards the end of the nineteenth century, increasing almost directly in proportion with the rising influx of scientific knowledge.¹ In *Pfister's Mill*, however, the smooth surface of poetic realism is disturbed.

In the end, it does not matter whether this problem with nostalgia is caused by Raabe’s style or if it is (intentionally) overlooked in the spirit of progress. But it is certain that strategies of dissociation (Helmers, “Zur Verfremdung”) and multi-layered narration of time (Oppermann, “Zum Proble”) contributed to it. Like agency and processes in the shaping of non-fictional social-natural sites, the techniques and narrative strategies that contribute to the shaping of a novel need an expert if they are to be disentangled: literary critic or natural scientist. In their separate “ecosystems” these play similar roles representing micro- and macrocosms. Yet the narrative strategies within the novel and the particular interpretation of the literary critic are both individual contributions to the overall

¹ Wilke refers to a then unpublished article by Barbara Thums, “Stadt-Land-Fluss: Öko-Poetik bei Charles Dickens und Wilhelm Raabe.” *Kunst, Erkenntnis, Wissenschaft. Formen des Wissens von der Antike bis heute*. Ed. Marion Hiller. Heidelberg: Winter, 2015. n.n. Print.

communication process shaping the literary socio-natural site of *Pfister's Mill*. Raabe had wanted his novel to be part of the communication process shaping the socio-natural site of New Brunswick, which was troubled by an increasing number and problematic sugar refineries. Unfortunately, his attempt did not succeed. It did not earn him the popularity or wide distribution required to make an impact, and his audience failed to grasp his message.

The Microscopy

This failure to communicate the necessity of (lasting and effective) environmental protection is—from a modern point of view—even more frustrating, as Raabe not only foresaw the current problematic, but recognized and anticipated another problem, namely that of invisible risks arising from a growing chemical industry. In his poetic practice, he describes the toxicity of that specific sector throughout the course of the novel. The arc of tension peaks during Old Pfister's visit to Asche's makeshift city laboratory. The miller and his son personally approach him to ask if he is willing to support their legal cause with his scientific expertise. Yet the vapors they inhale cause massive breathing problems to the old miller and his son, even worse than those caused by the smells of the sugar factory (PM 58). The linguistic artistry Raabe uses to describe the coughing and spluttering chemist and his visitors in the midst of the heavy fog in the washhouse testifies to his well-informed concerns (Rindisbacher 29). The passage also exemplifies his use of black humor and biting sarcasm, modes of writing which are usually concealed in reassuringly humorous descriptions. Although it is an integral part of realist writing (Preisendanz 11), this contrast makes his images seem almost cruel, as Heinrich Detering phrases it (4).

Literally at the center of his novel, Raabe places a poem, "Einst kommt die Stunde" (The Hour Will Come). It is recited at midnight on Christmas Eve by the failed poet Doktor Felix Lippoldes, who is a hopeless alcoholic. The party has just taken water samples in the fields behind the sugar factory and is now celebrating in the cozy atmosphere of a warm home permeated by the incongruous smells of roast goose and hydrogen sulphide (PM 88). Here the absurdity lies in celebrating the coming arrival of the Christian savior with an ode to the apocalypse in the presence of the future perpetrator of pollution. On this very evening, Asche, who will later build a chemical factory on the grounds of the old mill, chooses the poet's daughter as his life partner. Almost absurd in their conception, Lippoldes's poem and the whole scene have received special attention by Raabe scholars such as Hermann Helmers (1987) and Heinrich Detering, who extrapolated from it the author's awareness of environmental degradation. Surrounded by citations from the biblical apocalypse and Jewish religious writings, Raabe literally and metaphorically presents the end of the world in shockingly lurid terms. With Lippoldes as comical and fretful caricature of the purveyors of looming apocalypse

(Pizer 121), he also lampoons attitudes of the petty bourgeoisie, effectively ridiculing them both (Detering 14).

There is a striking reference to Pfister's polluted millstream as a "provincial styx," and the underlying criticism of both cultural crisis and ecological damage probably caused Raabe many sleepless nights. Increasingly detached from reality, Lippoldes drowns himself in the end, probably in an act of idealism (Manthey 90) (PM 144). With him and the old miller gone, humane and humanistic values figuratively turn to "ash," while society watches in stupor. At the end of the novel, the miller's son Eberhard Pfister recaptures the mood:

We go for tea on the veranda. Next door the great stain-removal institution is rattling away, blowing its clouds up into the evening sky, almost as badly as in Krickeroode. The river, which is broader here, yet also not truly broad, is swarming with all sorts of rowing and sailing boats, even though we pollute it to the best of our abilities, and it seems to accept Rhakopygros as something wholly natural, to which it is quite indifferent. (PM 187)

This episode conveys a sense of multiple failures: failure to grasp the hazardous nature of the present, failure to acknowledge future problems, and failure to preserve past values. Even the old miller's lament about the young chemist being the only one to conserve the values of the older generation (PM 185) reveals itself as based on a false premise. Raabe, however, uses the scene with great skill to point to the dangers of environmental pollution.

The Rotifers

A.A. Asche is the most interesting character of the novel when it comes to analyzing Raabe's position on the dangers of pollution. With this figure, the author suggests the intertwined branches of natural science and economy are Janus-faced. Their dangers are expressed through the chemist's name, occupation, and behavioral practices. Spelled out, his first names read as "August Adam." Adam, the father of all men, stands for the father of all new "modern" industry, but the inherent danger to the environment and society which he poses supports a reading of this Adam as an Anti-Christ figure (Kaiser, "Erlösung Tod" 10). Driven by nostalgia and quasi-filial piety, he helps Old Pfister save his mill by convicting the sugar refinery with his water analysis. In the end, however, he "saves" the world by polluting it. The "world" here incorporates the whole of German society, the German economy, and the environment. Asche is a future pillar of industry, yet he is still interested in traditional humanistic education and even fights organic water pollution. His second name, August, alludes to the figure of the "dumme August," a silly man, who with his efforts of saving it, endangers the environment even more (Helmers). The categories of failure and success become blurred in this cynical juxtaposition. Asche's involvement on both sides of the equation prefigures Donna Haraway's critique of the supposed neutrality of spectatorship in scientific work (Clark 100).

Ash is one of the main ingredients in traditional soap production, in which Asche is interested. Furthermore, the German colloquial term “Bocksasche,” used in industrial contexts for certain kinds of toxic waste (generally used for road building), evokes the symbolic billy goat side of the devil (Kaiser, “Erlösung Tod” 10). Built into nature and society as seemingly harmless refuse, it is also alluded to in the novel (PM 88). Raabe skillfully describes a landscape picked bare, permeated by (tourist) railroads, and pathways fortified with Bocksasche. It is an example of how he perceives and successfully depicts the flip-side of industrial transformation. He accuses his readership of failing to see this sinister side of landscape change brought about by industrialisation and modernization. As Berbeli Wanning has argued, an adaptation of cognitive and perceptual processes can be identified in narrative texts of the nineteenth century: they adapted in order to cope with the losses and dangers of a changing environmental reality (381). It also becomes apparent that the fumes and effluents emerging from the new chemical industry are more intense and toxic than the miasma-like odors they are replacing (Hoppe 187). Their invisibility makes them potentially more harmful, as their ostensible absence can fool spectators into believing they are safe. Raabe’s characters struggle with the all-pervasiveness of toxicity, each in a unique way, as Wilke shows: individually, they prepare the ground for a toxic discourse as defined by Lawrence Buell (202). It almost seems like although Raabe had been interested in the effects of industrial pollution for decades, he failed to cognitively process this popular change in perceiving it. Alongside with his remaining trapped between realism and naturalism, this may help to explain his inability to connect with a wider readership.

The emerging urban middle class culturally deconstructs the risk from Asche’s factory’s inorganic pollution, when reevaluating the rural landscape and transforming the former economic basis into a recreational space, a site of semi-rural escapism, as Timothy Clark puts it (98). In the text this is indicated by rowing and sailing boats observed on the water by Pfister’s son Eberhart, who redefines his own identity by remembering and narrating his family (hi)story. His recollection enables the miller’s son to liberate himself from the past and its legacy, while reconfiguring his own personal boundaries (Decker 112). In order to portray this process in literary form, Raabe interweaves narrating and narrated time so complexly that in some parts past and present become almost indistinguishable (Oppermann, “Zum Problem” 64). In the end, it allows Eberhard to leave the rural area behind on all levels and embark on a new life within urban society. His family’s only recently saved mill will be torn down and replaced by a chemical factory. A life cycle starts anew, while the dangers looming ahead are flatly denied.

Eberhard’s main audience for this process of psychological cocooning and hatching is his young wife Emmy. Although seemingly unnecessary for the course of the story at first, the adorable and somewhat naive young lady holds important functions for the narrative. She stands in for the real readers, allowing for a

separation between the audience and the narrated tale, which according to Manthey is also a sign of the author's progressing alienation from his readership (73). With her shallow reaction to both her husband's emotion-laden personal story and the changes in her immediate environment, Emmy also represents those parts of society who have already become alienated from nature and rural life and who exist seemingly almost completely sealed off from the natural environment and its principles. As Raabe only introduced her in a later draft of the novel, she is said to be a mediating figure, first and foremost. With her childlike characteristics and "female" charm, apart from adding a love story to the narrative, she is thought to have been aimed to make the scientific story with its unpleasant odors more digestible for the readers (Fuld 289).

But her role as mediator is more complex and more important than merely being a stand-in for Raabe's readers. On the one hand, she embodies all stereotypes of middle-class women at the time. On the other hand, midway between Eberhard and Asche, she fulfills the function of a "midwife" for growing awareness. Without her, Eberhard would be stuck in nostalgia, subject to a fate similar to his father's. She initiates his thought process on two levels when she confronts him with the inevitability of their "actual existence now on this earth" (Clark 98). Firstly, her mere existence inspires the young teacher to chronicle his family history, as he feels urged to share his family heritage with his wife before it is gone and they start their own family. Secondly, her ignorant reactions to his tales offer food for thought to Eberhard, and he often starts writing after she has gone to sleep, translating his father's toxic discourse into realist fiction (Wilke 203). One evening he ponders,

I did not find out (...) and leaned out of the open window for a while longer (...) and gazing into the summer night (...); or rather, breathing in its odours, I immediately had to agree with Emmy, who was unable to comprehend either the last innkeeper of Pfister's mill's in his desperation, or my own story. (PM 52)

Wilhelm Raabe had a very positive image of women, as can be read from the correspondence with his wife Berta and eldest daughter Margarethe in particular, who he appreciated as sparring partners in conversation (Nachlass H III 10 57; 120). He may well have woven these experiences into his narrative. Lippoldes' daughter Albertine plays a similar role to Emmy's in her relationship with A.A. Asche. Neither Asche nor the miller's son can proceed in their personal and professional development without the support and company of the female companion.

Old Pfister seems the only central character who really suffers from the environmental degradation. The cultural and social changes widely connected to it, however, cause the death of a minor character, Doktor Felix Lippoldes, thereby reflecting Raabe's grief over the decline of humanistic education and values. The dying miller, a wonderfully multi-layered personality, represents the end of Germany's rural society, whose traditions and values are shifting almost at random; consequently, he also represents the effects of social change brought about by

acceleration and anxiety about the future (Detering 5). But above all, he can be read as personifying the “romantic” nature which is fast disappearing. He thus provides the entry point for readings of *Pfister's Mill* in this context. Both society and literature had come to reassess and recharge the symbolism of “Nature” since the Romantic era, which has been described by Sonja Klimek with reference to the very German concept of “Waldeinsamkeit” (forest solitude). It seems there is no place for nature in modern society, and no such thing as even the illusion of an unspoiled nature remains. Yet Raabe and others generate an idyllic nature through negation (Thürmer 75). Inability and unwillingness to adapt to the progress demanded by an industrialised nation are the causes of Pfister’s death.

While the old miller fails to develop, his son Eberhard stays unaffected by the unfolding events, at least on the surface accepting every stroke of fate (the decline of the family business, the degradation of the environment, and his father’s death) as given and necessary. As part of the new generation, he remains safe from any negative effects, at least for now. And “palliator” Asche’s involvement in the biological investigation to revenge the mill’s fate resembles a casting out of demons by their ruler. This paradox was clearly intended by Raabe as a critique of the uncritical, oblivious, and in his eyes opportunistic supporters of industrialisation. At the same time it might help to explain his focus on biological water analysis, rather than the combined bio-chemical practice of the time, as has been pointed out by August Thienemann, and again by historian Elisabeth Vaupel in the late 1980s.

The challenges to modern society are represented in the experiences of the younger generation. Asche actively transforms the landscape—the world outside—while Eberhard transforms the world within, reflecting on the consequences. Emmy, necessarily emotionally distant, mediates between the two realms. She actually structures the plot, as she supports the shift between the internal and framing narrative of *Pfister's Mill*, between the text as a vehicle for the story of pollution, and as Eberhard’s project (Wanning) of “therapeutic” writing. Thus she fulfills an important function, enabling and presenting the internal and external changes to Ebert’s reality, the inner and outer nature of Pfister’s mill. Furthermore, Emmy’s naive and simple mind serves as platform of translation between her husband’s humanist ethics and Asche’s scientific worldview devoid of all literary and cultural allusions. As the woman is so unobtrusive in her existence, she is easily overlooked and underrepresented, like the other female characters, Albertine and Christine. The female characters, however, are also indispensable facilitators of the narration of Pfister’s toxic discourse, which is only spoken by men (Wilke 205).

The Report

Raabe generally favored open endings (Pizer 116). His writing is dense, and

the challenge of the rich intertextuality of his works has attracted generations of scholars. His “failure to take a clear stand” in politics and literature also invites readers and critics alike to take his so carefully constructed narratives apart, word by word, piece by piece. With every layer additional meanings can be excavated, revealing openness, vagueness, shifting positions, and most importantly ambiguity. The only certainty that remains in the end is Raabe’s disillusionment with social, political, economic, and general development, swathed in yearning for a meaningful wholeness of life. Humans had, he believed, become alienated from art and nature through progress and technology.

In the end, however, one is left wondering: If reviewers and readers failed and still fail to understand Raabe’s socio-critical intention, is not Raabe himself to blame? Does his relatively inaccessible form of writing not determine a small readership and a hesitant appreciation of his work? Or are these inevitable consequences of the problems he deals with, the embracing of progress at the late nineteenth-century dawn of globalized economic competition?

At the very least, Wilhelm Raabe’s prescient awareness of the environmental (and health) problems caused by industrial pollution cannot be denied. His novels describe the causal relationship between water pollution and its effects on flora and fauna, as well as their hazardous health effects (in *Pfister’s Mill* especially their effect on the respiratory system). Cleaning up the environment, or better preventing contamination, is something not done for its own sake, but induced primarily by the human interest in survival: the need to breathe. It is, however, underpinned by a nostalgic view of the past and discussions about the modern use of rural nature as a recreational sphere. Although the representatives of the younger generation in the novel gain in environmental awareness, this does not lead to any real change in their attitude and approach towards nature. Instead of preventing future ecological damage to the socio-natural site, they accept it: their conduct is directed towards changing their personal perception; which is at best a first step towards action. This is what Colin Riordan has identified as the core problem of today’s political ecology (323). Although it is undeniably important, it neglects the real-life limitations of the protagonists’ scope for action, as well as that of the citizens of the German Empire, who lacked possibilities to influence their livelihoods.

Raabe’s use of industrial water pollution as a symptomatic field for his narrative on the price of modernity nevertheless underlines the artist’s foresight, which is closely linked with his holistic sensing and thinking (Goodbody 87). He managed to capture the contemporary sensibility and *Zeitgeist*, skillfully sketching the crisis of cultural consciousness (Jungkuntz-Höltje). The mechanism he uses is the act of remembering of his chronicler Eberhard Pfister, which allows the author to reflect on the inner confusion and instability brought about by change and uncertainty. At the same time, it allows him to tap into a new quality of emotions that would inspire modern psychology, as extracted from internal and external

history. This sense of “crisis,” so closely associated with Sustecks’ proposal for a realist pessimism of the era, also applies to the contemporary awareness of environmental questions in general. With a distorting mirror Raabe tried to direct his contemporaries’ attention towards a topic of enormous significance and explosive power, which was, however, not discussed controversially in public for socio-political reasons. He shows a world where there is no inside and outside of society, where humans and nature are interdependent (Wilke 211). It is as if he tried to spill the news, but succeeded only in spilling his opportunity to act. The mill stands not only as a deconstruction of the motif’s romantic symbolism, but also as a metaphor for Germany, and New Brunswick in particular, which face the prospect of ecocide due to bad political decision-making. With its multiple entangled narratives of technological and scientific progress, industrialisation, and legal development, *Pfister's Mill* can serve as a case study for a political ecology of the nineteenth century, dealing with the effects of ecological change on and in human communities, and standing as a monument of crisis within the crisis.

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