

Since the seminal book *Green Chemistry: Theory and Practice* published in 1998 by Paul Anastas and John C. Warner, the language of green chemistry spread throughout both academia and the industry. Degrees and journals in the field were established, and sustainable practices are continuously incorporated into the everyday activities of chemical factories. The dominant narrative suggests that green chemistry is a new radical paradigm change for chemistry. The old chemistry, unsustainable, toxic, and environmentally unfriendly, was replaced by the chemistry focused on sustainable solutions, waste disposal, renewable feedstock, and environmentally neutral. The shift supposedly occurred thanks to the activities of the American Environmental Protection Agency, and the environmental activism broadly construed, whose roots can be traced to Rachel Carson's works in the 1960s.

And yet, it appears that this narrative is incomplete. Not only deeply Americanocentric, it is also profoundly limited chronologically. Would the so-called 12 principles of green chemistry established by Anastas and Warner in the late 1990s surprise a chemist from the 1890s? Weren't chemists from other cultural centers, French-, German-, or Russian-speaking aware of challenges of toxicity or renewability? The starting point for the project is the essay by prof. William Lynch "Thresholds of Change: Why Didn't Green Chemistry Happen Sooner?" published in 2015. Our hypothesis is that prof. Lynch is wrong: principles and practices of green chemistry were already discovered and rediscovered multiple times in a variety of national and disciplinary contexts. Only the language used to address these challenges differed from ours. The ambition of this project is to identify narratives, discourses, and vocabularies used by chemists, engineers, but also industry leaders and policymakers concerning the same problems that are being dealt with by green chemistry today. Or in other words, our project aspires to study green chemistry *avant la lettre*.

The study will be built around two major topics: wastes and renewability, constitutive for the identity of green chemistry today. Chronologically, it will focus on the entire period starting from the birth of the modern chemical industry (1860s/1870s) up to the transition towards the modern green chemistry-dominated language (1980s/1990s). Special attention will be paid to the interwar period, particularly abundant in initiatives involving research on petroleum alternatives and renewable energies and raw materials.

The project will explore two big categories of primary sources. First, we are interested in chemical industry reviews, chemistry manuals, but also popular science publications, or industry-related brochures. Our goal would be to study the language of these works and explore how they approached issues labeled today as green chemistry. The second category of sources will be archives of major private companies in four different countries: Pechiney (France), Imperial Chemical Industries (UK), Solvay (Belgium), Bayer, and BASF (Germany). These archives will allow us to identify pertinent comparative case studies that would illustrate the evolution of pre-green chemistry practices in a variety of historical and geographical contexts.

From the disciplinary point of view, the project places itself at the frontier of multiple fields: history of chemistry, environmental history, Science and Society Studies (STS), but also business history or sociology of knowledge. It will notably make use of theoretical frameworks of sociology of expectations to understand how promises were a key ingredient in defining transversal objects such as industrial wastes and renewable feedstock.

The project's main deliverable will be a comprehensive book on the history of green chemistry *avant la lettre* that might be of interest to various categories of readers. For example, one of our objectives is to uncover whether there is a continuity between green chemistry as understood today and its past incarnations, a topic that might be of interest to chemists themselves. However, more importantly, we hope that it can provide a new reading for contemporary environmental challenges and the place of chemistry in solving them. As such, it might reach a considerably wider public of all citizens concerned with environment, pollution and the challenges of the industry of tomorrow.