## Environmental history in Belgian historiography

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Finding its origin in the United States, the discipline of 'environmental history' (or 'ecological history') has taken a firm hold. It seems to have enormous potential, both inside and outside the academic world. Nevertheless, it is still a young discipline whose content and outlines are anything but stable. Furthermore, existential questions are constantly being asked about its nature and function, more so than with other subdisciplines in historiography. Should we 'learn' something from environmental history, and what is our target readership? What has hitherto been investigated in this discipline and what are the typical results? Is it really a discipline with its own 'identity'? Is it not more of a sub-discipline of historical research or simply a multi- or interdisciplinary branch of science? Is there a mission, what are the issues and what are the methodologies? In this article we will look at these questions, zooming in on contemporary historiography in Belgium.

## Introduction: some international trends

To a large extent, the discipline of ecological history owes its existence to the recognition of the environmental problem sometime around 1970. Reports from the Club of Rome between 1968 and 1974 and the establishment of numerous environmental organisations were certainly an initial influence on research in ecological history. Elements that played a vital role in the environmental debate were put in a historical perspective. We can still see this, for example, in discussions about climate change, struggles against pollution, the reintroduction of animals and the fight to protect exotic species. During this period, it slowly dawned on people working in research that the natural environment was rarely included in historical research, whereas the influence of man on his environment is actually as old as human civilisation itself. However, man's effect on the environment was not always as intense as now, nor was it always as negative. Indeed, the development of mankind is essentially based on the use of natural resources. After all, it was because of transformation in the economic set-up during the industrial revolution that many environmental problems changed, became more acute and accelerated infinitely. Since the natural and human

11. This paragraph is an adaptation of Erik Thoen, Christophe Verbruggen, Henny Van der WINDT & HILDE GREEFS, "'Ecologische geschiedenis': een discipline met oude wortels, vele takken en jonge vruchten", in Jaarboek voor Ecologische Geschiedenis, 2007 (10), p. 1-22. General and more in depth international historiographical overviews are: Verena Winiwarter (ed.), "Environmental history in Europe from 1994 to 2004: enthusiasm and consolidation", in Environment and History, no. 4, 2004 (10), p. 501-530; Fabien Locher & Gregory Quenet, "L'histoire environnementale : origines, enjeux et perspective d'un nouveau chantier", in Revue d'histoire moderne et contemporaine, no. 56, 2009, p. 7-38; J.R. McNelll, "Observations on the Nature and Culture of Environmental History", in History and Theory, no. 42, 2003, p. 5-43; ID., "The State of the Field of Environmental History", in Annual Review of Environment and Resources, 35, 2010, p. 345-374. For a history focussing especially on the 'natural phenomena' in human history (and therefore called more often 'history of ecology'), see ROBERT DELORT & CHRISTIAN BECK (eds). Pour une histoire de l'environnement et des phénomènes naturels, Paris, Éditions du CNRS, 1993; Robert Delort & F. Walter, Histoire de l'environnement européen, Paris, PUF, 2001. environments form an interactive system. the other interesting question is what effect nature and the environment have had on man. Periodically, this was unquestionably very substantial: take for example the battle against floods, desertification and other dangers.

Given the social roots of ecological history, the question is to what extent it is a historiography "with a cause". Most practitioners of ecological history think that moral judgements are acceptable, including those sometimes based on historical research, but that a merely didactic engagement is a bridge too far. For example, most ecological historians would point out that the change in the economic-political structure in the nineteenth century was an essential factor in the relationship between man and nature. Comments about the socially committed nature of environmental history also imply that we question the assumption that we can 'learn' something from history. As a consequence, we should also look closely at supposed causal relationships and the risk of settling for determinism where too much attention is paid to the explanatory capacities of natural evolution itself12.

Briefly, the purpose of ecological history is to examine the development of the relationship between humans and nature (or the environment). Admittedly, such studies are also carried out in other disciplines, such as archaeology, historical geography and evolutionary biology, but with a different less 'interactive' or relational approach. However, ecological history derives much of its terminology and formulation of problems from other much older disciplines namely ecology and anthropology. Ecology can be defined as the study of the conditions of existence of, and the relationship between, living organisms (plants, animals and humans) mutually and in relation to their non-living environment. This relationship is largely determined by the transfer of energy via energy flows. Flows of energy (and masses) within an ecosystem are key concepts not only for ecologists, but also for ecological historians. After all, they examine how such flows have developed in societies and how energy from the sun and fossil fuels have been used for farming. industry and other purposes. This focus upon flows is still used in environmental history, but has become less predominant.

Around 1960, researchers in anthropology, the study of the physical and mental differences in time and space of humans and human culture, became interested in the human environment as defined by ecologists. Since then the term cultural ecology (also known as anthropological ecology or ecological anthropology) has become very popular. Sociologists from various movements have also contributed directly or indirectly to ecological historiography. The urban environment in particular - sometimes but not always in relation to the rural environment - was a major research topic in this movement<sup>13</sup>. Historical research into the medicalisation and sanitisation of public and private places is again much inspired by existing sociological literature on processes of discipline and civilisation<sup>14</sup>. Studies of social movements which

12. As recently argued in : Frank Sejersen, Kirsten Hastrup, Nick Brooks, Mats Widgren, Laura VANG RASMUSSEN & MATTIAS BORG, "Environmental history and the understanding of causal relations", in Geografisk Tidsskrift-Danish Journal of Geography, no. 2, 2012 (112), p. 203-205. 13. GENEVIÈVE MASSARD-GUILBAUD, "Pour une histoire environnementale de l'urbain ", in Histoire urbaine, special issue Villes et Environnement, no 18, 2007, p. 5-21. 14. For instance: Alan Corbin, "L'opinion et la politique face aux nuisances industrielles dans la ville préhaussmanienne ", in Histoire, économie et société, no. 1, 1983, p. 111-118.





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shaped and contributed to the thinking about nature, and the social constructivism in which the design and development of environmental problems was examined, are fairly recent<sup>15</sup>.

As previously mentioned, the home of ecological history is the United States, and Roderick Nash its greatest pioneer<sup>16</sup>. Some years later, in 1970, he introduced the term 'environmental history'. Partly under his influence, environmental history was initially unilateral: a discipline that examined the effect of man on his natural environment. In the 1980s there was a clear shift, mainly under the influence of Donald Worster<sup>17</sup>. Environmental history became bilateral: a discipline that examined the interaction between man and his natural environment. Within this broad delineation of the field. Worster identified three clusters of research topics at the time (1980s)18. (1) The first cluster was concerned the study of how organic and inorganic nature functioned in the past, insofar as it was relevant to humans. It incorporates the study of the evolution of fauna and flora and climate history, and is also called 'historical ecology'. (2) Worster's second cluster included the relationships between socio-economic systems, production methods and the environment. Topics included here have been broached before in historical research, but are now looked at from a different perspective, such as agrarian and

industrial systems or food and energy production. (3) Finally, the third cluster was essentially a subsection of the history of ideas and mentalities. According to Worster, this cluster focused on research into changing ideas about the place and significance of nature and the environment, and how it was addressed in systems of norms, in legislation and in politics. Thanks to the input of other environmental historians such as Carolyn Merchant, and partly as a reaction to Worster's alleged materialism, a fourth cluster was added to the historiography: the role of culture, class, gender and power<sup>19</sup>, 'Environmental approaches' played an important role in colonial and post-colonial history. Others such as Crosby also referred to the ecological imperialism of Europe, as well as the invasion of the rest of the world by Europeans and their genes, pets, diseases and vermin<sup>20</sup>.

In the wake of developments in the United States, ecological history as we know in Europe made its entrance in the 1970s. Aside from Annales-historian Emmanuel LeRoy Ladurie (1967 and 1974)<sup>21</sup>, it was mainly the Germans and the English who took the lead. In Germany, ecological history emerged from history of technology, which examined topics related to water supply, waste management, sewage and public health care during the first half of the twentieth

15. GENEVIÈVE MASSARD-GUILBAUD & STEPHEN MOSLEY (eds.), Common Ground. Integrating the Social and Environmental in History, Newcastle, 2011; Geneviève Massard-Guilbaud & Richard Rodger (eds), Environmental and Social Justice in the City. Historical Perspectives, Cambridge, Cambridge UP, 2011. 16. RODERICK NASH, Wilderness and the American Mind, New Haven, 1967. 17. Donald Worster, Nature's Economy: A History of Ecological Ideas, Cambridge, 1977 and ID., Rivers of Empire: Water, Aridity, and the Growth of the American West, New York, Pantheon, 1985. 18. Donald Worster, "Doing Environmental History", in Id. (ed.), The Ends of the Earth: Perspectives on Modern Environmental History, New York, Cambridge University Press, 1989, p. 289-307. 19. WILLIAM CRONON, "A Place for Stories: Nature, History and Narrative", in Journal of American History, 1992, p. 1347-1376; CAROLYN MERCHANT, Ecological Revolutions: Nature, Gender, and Science in New England, Berkeley, 1989. 20. ALFRED CROSBY, Ecological Imperialism: the Biological Expansion of Europe, 900-1900, Cambridge, Cambridge UP, 1986. 21. EMMANUEL LE ROY LADURIE, "Histoire et environnement", in Annales, no. 3, 1974 (29); and ID., Histoire du climat depuis l'an mil, Paris, 1967.

century. In 1981 the leading German journal Technikgeschichte was already reporting on the link between technological developments and environmental problems. In England too. the emphasis lav initially on the technological and scientific aspects of the environment<sup>22</sup>. Hardly surprising then that one of the most cited works in ecological historiography was written by a chemist, specialising in the composition of the atmosphere. That brings us to a number of other important trends that have emerged in recent decades. The public debate was increasingly dominated by what Sörling and Warde describe as a 'sciencebased environmental meta-history'23 in which an evolutionary meta-narrative is constructed with a minimum of source material and homegrown empirical research24. Such syntheses are not usually written by historians. Historians, in turn, have to insert historical-methodological footnotes for natural scientists, or put changes, such as the increase or decrease in air pollution, in a historical context. This is being done more frequently, by the connection of national or regional case studies to transnational or global processes and dynamics. A good example of this is Natur und Macht, eine Weltgeschichte der Umwelt by the German historian Joachim Radkau, who sees the relationship with nature as formed not so much by ideas and religion as by patterns of everyday collective behaviour

and the institutionalised (power) structures in which these patterns are embedded. Radkau's book is also the approach taken by the recent special edition of *Social Science History* (autumn 2013) on 'Global Environmental History'<sup>25</sup>. We will see that the interest in global and transnational processes and the crossovers with the burgeoning field of "world history", to a certain extent also extends into Belgian history writing.

# Between France and the Netherlands. The foundations and institutionalisation of environmental history in Belgium

Developments in Belgium cannot be seen separately from those in France and the Netherlands. In the Netherlands, ecological history is firmly approached from two angles: the history of pollution and hygiene on the one hand and historical geography on the other<sup>26</sup>. The first comprehensive academic publication on historical pollution in the Low Countries was probably the book by Henk Van Zon (1986)27. It looked at the way in which the processing of human sewage developed in the Netherlands. There are several studies about the approach to the landscape. A few early studies in the Netherlands were inspired by agrarian history, the pioneer of which was Slicher van Bath (1960)<sup>28</sup>. By the 19th century, studies of the history of forestry

22. See for instance: Peter Brimblecombe, The Big Smoke, a History of Air Pollution in London since Medieval Times, London, 1987. 23. Sverker Sorlin & Paul Warde, "The Problem of the Problem of Environmental History: A Re-reading of the Field", in Environmental History, 2007, no. 12, p. 107-130. 24. A good example is: Johan Goudshom, Stof waar honger uit ontstond: over evolutie en sociale processen, Amsterdam, 2001. 25. Robert M. Swartz, "Scaling Upr; loachim Radkau and the Project of Global Environmental History", in Social Science History, no. 3, 2013 (37), p. 311-324. See also: John McNeill, Something New Under the Sun: Environmental History of the Twentieth-Century World, New York, W.W. Norton & Co, 2000 and Donald Hughes, "Global Dimensions of Environmental History", in Pacific Historical Review, 2001, no. 70, p. 91-101. 26. About the Netherlands (and Flanders), see: Petra Van Dam, "Environmental Hiscory in Europe from 1994 to 2004, Enthusiasm and Consolidation", in Environment and History, no. 4, 2004 (10), p. 501-530. 27. Henk Van Zon, Een zeer onfrisse geschiedenis: studies over niet-industriële vervuiling in Nederland, 1850-1920, Groningen, 1986. 28. Slicher van Bath, De agrarische geschiedenis van West-Europa, 600-1850, Utrecht, 1960.

were already being published that criticised over-exploitation. The role of water has also long enjoyed an important position in Dutch history. The great interest in the battle between land and water in the Netherlands is also evident in publications about peat farming. polders, dyke construction and dam building. This special interest in the Netherlands for 'exceptional' national histories is connected to what we have seen in other countries. including the United States<sup>29</sup>.

In France, environmental history has emerged late, but was based on an old tradition, as shown by Geneviève Massard-Guilbaud<sup>30</sup>. The Hexagon has a tradition of environmental history avant la lettre, with roots in Vidal de la Blache's school of geography and in the movement of the Annales. Not only Marc Bloch and Lucien Febvre have shown a particular interest in the environment – what they called "the earth" – but in 1974, a special issue devoted to "History and Environment" was published by the Annales. This issue appeared to be an echo, in the community of French historians, of discussions mostly held outside their circle. But this work was mainly composed of articles written by foreign researchers and non-historians, which is not less interesting but it made it clear that, at that time, environmental history was not yet in the hands of historians from France. Moreover, the trend was still to separate earth and men, or climate and men (cf. E. Le Roy Ladurie), and thus did not help to think in environmental terms. We had to wait Robert Delort's works on animals and plants<sup>31</sup>, and those of Andrée Corvol and the "Groupe d'histoire des forêts françaises" in the 1980s to truly enter into an environmental history<sup>32</sup>. Other works can be added to these first ones: those of historians of technology<sup>33</sup> who explored the urban soil, the pollution, the unhealthy factories, etc., but also those of historians of medicine. historians of natural hasards<sup>34</sup>, as well as those of "ruralists" (notably through the journal Histoire et sociétés rurales (since 1994) or "Ruralia" (since 1997). Concerning France's contribution to environmental history, it is also important to note the very significant role of Alain Corbin, even if he is historian of sensibilities and perceptions more than researcher in environmental history.

It is worth noting that the two approaches in the Netherlands are very much in evidence in Flanders. The first scarce studies in the field were conducted at the universities of Brussels and Antwerp and dealt with the history of pollution and hygiene. In 1980 Greta Devos published one of the first articles on the history of pollution<sup>35</sup>. Four years later Cauwenberghe

<sup>29.</sup> IAN TYRELL, "Reflections on the transnational turn in United States history: theory and practice", in Journal of Global History, no. 4, 2009, p. 453-474. 30. GENEVIÈVE MASSARD-GUILBAUD, "De la 'part du milieu' à l'histoire de l'environnement", in Le Mouvement Social, no. 200, 2002, p. 64-72. 31. ROBERT DELORT, Les Animaux ont une histoire, Paris, Seuil, 1984. 32. Andrée Corvol, L'Homme et l'arbre sous l'Ancien Régime, Paris, Economica, 1984; Id., L'Homme aux Bois, Histoire des relations entre l'homme et la forêt, XVIIe-XXe siècle, Paris, Fayard, 1987. 33. André Guillerme, Les Temps de l'eau. La cité, l'eau et les techniques. Nord de la France, fin IIIe-début XIXe siècle, Seyssel, Champ Vallon, 1983; Sabine Barles et al (eds.), Le Sol urbain, Paris, Anthropos, 1999. 34. ROBERT DELORT & C. BECK (eds), Pour une histoire de l'environnement et des phénomènes naturels, Paris, Éditions du CNRS, 1993; Gregory Quenet, Les tremblements de terre aux XVIIe et XVIIIe siècles. La naissance d'un risque, Paris, 2005. 35. Greta Devos, "Milieuverontreiniging door de industrie omstreeks het midden van de 19e eeuw", in Bijdragen tot de geschiedenis. Liber Alumnorum Karel Van Isacker, Antwerpen, 1980,

and Meel<sup>36</sup> published an article on the government initiative concerning the environment and public hygiene. Poulussen's monograph on urban pollution from 1500 to 1800 still makes him one of the most important Flemish representatives of the modern environmental history of air, water and soil pollution<sup>37</sup>. On the instigation of Erik Thoen, the discipline got its structural foothold, first at the University of Ghent, Environmental history became part of the curriculum and a Dutch-Belgian society for Environmental history was created. He was also one of the initiators of the Belgian-Dutch journal laarboek (before 2000. 'Tijdschrift') voor Ecologische Geschiedenis. Around 2000 these academic foundations resulted in more in-depth studies of historical pollution, e.g. the study of Verbruggen, after which the number of studies on this issue multiplied<sup>38</sup>. Studies in the Netherlands (see, amongst others, Nieuwkoop, 1997) had shown the usefulness of historical research demonstrated by the tracing of historically polluted soil. A knowledge of various relevant disciplines such as chemistry, toxicology and technological history enabled a selection of potential soil-polluting industrial activities to be identified. This is essentially a fusion of research in natural science and history. In her PhD, Liesbet Van Nieuwenhuyse carried out a critical assessment of the sources allowing such research in Flanders<sup>39</sup>.

The interest in rural history and historical geography in Flanders germinated at the University of Ghent too. For many years the late Adriaan Verhulst and his successor Erik Thoen carried out a lot of research into the history of the Flemish rural society and rural and urban landscapes<sup>40</sup>. The central aim of this Ghent research unit is to link environmental history and historical geography with the economic structures of survival as well as with social aspects such as the history of mortality, as exemplified by Isabelle Devos<sup>41</sup>. Historical geographical research was initially limited to the Middle Ages and the Early Modern eras, but this soon changed. An example is Martina De Moor's research about the 'commons' in 18th and 20th century Flanders<sup>42</sup>. Another good example is the study by, which aims to contribute to the

36. E. CAUWENBERGHE & E. MEEL, "Overheidsinitiatief aangaande leefmilieu, de openbare hygiene en veiligheid in enkele steden van de Zuidelijke Nederlanden uit de pre-industriële tijd (17de en 18de eeuw), in Het openbaar initiatief van de gemeenten in België, historische grondslagen, Ancien Régime, (Gemeentekrediet van België, historische uitgaven), Brussel, 1984, p. 257-285. 37. Peter Poulussen, Van burenlast tot milieuhinder. Het stedelijk leefmilieu 1500-1800, Kapellen, 1987. 38. Christophe Verbruggen, De stank bederft onze eetwaren. Reacties op industriële vervuiling tijdens de 19de eeuw, (Reeks Historische Economie en Ecologie), Gent, Academia Press, 2002. For a survey, see Erik Thoen & Tim Soens, "L'histoire de l'environnement en Flandre. Origine et développement de la discipline, spécialement dans les universités de Gand et d'Anvers", in Isabel Parmentier (ed.), La recherche en histoire de l'environnement : Belgique-Luxembourg-Congo-Rwanda-Burundi: actes PREBel, Namur, Presses Universitaires de Namur, 2010, p. 39-90. 39. LIESBET VAN NIEUWENHUYSE, Potentiële historische bodemverontreiniging als gevolg van industriële activiteiten in de 19de en 20ste eeuwse stad : een bronnenkritische studie over Gent, 1795-1926, PhD thesis, Ghent University, 2008 (directed by E. Thoen and E. Vanhaute). 40. See among others Adriaan Verhulst, Landschap en landbouw in middeleeuws Vlaanderen, Brussel, 1995. 41. Isabelle Devos, Allemaal beestjes: mortaliteit en morbiditeit in Vlaanderen, 18de-20ste eeuw (Reeks Historische Economie en Ecologie - Ginkgo series ), Gent, Academia Press, 2006. 42. TINE DE MOOR, Tot profijt van de ghemeensaemheijt. Gebruik, gebruikers en beheer van gemene gronden in Zandig Vlaanderen, 18<sup>de</sup> en 19<sup>de</sup> eeuw, PhD thesis, Ghent University, 2003 (directed by E. Thoen and E. Vanhaute).

historical ecology of the Limburg Kempen between 1910 and 195043. The central theme was the way in which farmers in the first half of the twentieth century dealt with water sources, grassland in the river valleys. dry and humid heathland and fishing lakes. The sources behind this sort of research are again very diverse, and can include hunting and pollen data, archaeological research on bones, physical or chemical research on old trees, legislation for the protection of animals, and information from auctions, etc. As far as the nineteenth and twentieth centuries are concerned, there has also recently been an interest in the history of modern spatial planning44, though this focuses mainly on urban ecology and planning. Everything being taken into account, the focus upon the dynamic relationship between humans and nature remains mainly present in rural history and historical geography conducted in all Flemish universities, including University of Antwerp (Tim Soens), the Flemish Free University of Brussels (Dries Tys) and the KU Leuven (Leen Van Molle). Internationally they are working together in the CORN (Comparative Rural History of the North Sea Area)-network45.

Strikingly, the emergence of environmental history in the French speaking universities in Brussels and in Southern Belgium also took place in rural history<sup>46</sup>. In 1963, Leopold Genicot, and René Noël, founded a Centre belge d'histoire rurale (in cooperation with Adriaan Verhulst from Ghent) and a Centre d'écologie historique in the UCLouvain. inviting historians to work with geographers. agronomists and all the earth sciences. However, it was probably with urban history that environmental history became successful and recognized as a discipline. Researchers at the ULB and, in particular, Claire Billen charted the way forward. She started from the history of countryside and from forest history, and then she focused on the relationships between towns and rural areas and moved towards urban environmental history<sup>47</sup>. One of her students, Chloé Deligne contributed significantly to the scientific recognition of this field of research by her extensive investigation about Brussels, the Senne and its tributaries<sup>48</sup>. In the UCLouvain, several researchers have worked on public health and pollution in urban places, exploring cities such as Brussels, Mons, Nivelles or Charleroi... (Cl. Bruneel, L. Honnoré – now at the States Archives in

43. J. Burny, Bijdrage tot de historische ecologie van de Limburgse kempen (1910-1950). Tweehonderd gesprekken samengevat, Maastricht, 1999. 44. MICHAEL RYCKEWAERT, Working in the functional city. Planning the economic backbone of the Belgian welfare state 1945-1973, PhD thesis, KU Leuven, 2007. 45. The CORN research network consists of more than 20 research units based in six countries in North-Western Europe. They share the ambition to study long-term developments of rural societies from the Middle Ages to the twentieth century within a comparative framework. Environmental history has a central place within the network. 46. ISABELLE PARMENTIER, "L'histoire environnementale et la ville : orientation et structuration de la discipline en Belgique", in Cahiers bruxellois. Revue d'histoire urbaine, 2012, no. 43, p. 43-57. 47. For example: CLAIRE BILLEN, "Binche et sa campagne: des rapports économiques exemplaires (XIIe-XIIIe siècle)", in Villes et campagnes au Moyen Âge. Mélanges offerts à G. Despy, Bruxelles, 1991, p. 89-109; Claire Billen & J.M. Decroly, Petits coins dans la grande ville. Les toilettes publiques à Bruxelles du Moyen Âge à nos jours, (Historia Bruxellae, n° 4), Bruxelles, 2003. 48. See Chloe Deligne, Bruxelles et sa rivière. Genèse d'un territoire urbain (12e-18e siècle), (Studies in European Urban History), Turnhout, 2003. Mons –, I. Parmentier – now in UNamur<sup>49</sup>). Furthermore, this topic is currently invested by researchers at the University of Namur, where a *Pôle de l'histoire environnementale* (PolleN) has been recently created and led by I. Parmentier<sup>50</sup>. This team organized the First Congress for Environmental History in Belgium (2008), concerning also Luxembourg and the former colonies (Congo and Ruanda-Urundi)<sup>51</sup>. A "Second Congress" followed in 2012. Several PhD theses in environmental history are currently in progress in this University<sup>52</sup>.

Nowadays, in Wallonia as well as in France, the historiographical orientation is also held by the historians of technology, and

more specifically industrial technologies. They study the impact of factories on the environment, the issue of waste and pollution, and the transformation of landscapes. This is the case of the Centre d'histoire des sciences et des techniques (CHST at the University of Liège) founded by Robert Halleux<sup>53</sup>. These researchers from different backgrounds have recently federated in a network ("a contact group") supported by the FNRS since 2008 and called HEnRI Histoire de l'Environnement - Réseau Interdisciplinaire<sup>54</sup>. They also have built a major interuniversity research project (Interuniversity Attraction Pole (IAP) supported by the Belgian Science Policy Office). bringing together universities from North and South and exploring the urban environmental

49. Cl. Bruneel, "Démographie, épidémies et écologie", in Comité international des sciences historiques. XVe congrès international des sciences historiques. Bucarest, 10 au 17 août 1980. Rapports, I: Grands thèmes et méthodologie, s. l. [Bucarest], 1980, p. 617-626; L Honnoré, Mons au fil de l'eau : des crises aux remèdes : préoccupations sanitaires et politiques communales d'hygiène publique (1830-1914) (Publication extraordinaire du Cercle archéologique de Mons, n° 1), Mons, 2005; Isabelle Parmentier, Histoire de l'environnement en Pays de Charleroi 1730-1830 : pollution et nuisances dans un paysage en voie d'industrialisation, (Académie royale de Belgique. Classe des lettres. Mémoires, collection in-8°, 3e série, 47), Bruxelles, 2008; ISABELLE PARMENTIER, "La pollution à Nivelles au XVIIIe siècle (1713-1795). Voirie et points d'eau", in Le Folklore Brabancon. Histoire et vie populaire, no. 284, 1994, p. 257-361. 50. See : www.unamur.be/pollen. 51. Isabelle Parmentier (with coll. of C. Ledent, eds.), La recherche en histoire de l'environnement : Belgique-Luxembourg-Congo-Rwanda-Burundi, (Collection Autres futurs, n° 3), Namur, Presses universitaires de Namur, 2010. About environmental history in former colonies, see the works of P. Van Schuylenbergh (national parks) and Anne Cornet (public health). 52. JULIEN MARÉCHAL, Les nuisances de l'industrie chimique. Savoirs, régulations et territoires (Belgique, 1820-1880); CAROLE LEDENT, Villes et rivières. Identité urbaine et environnementale dans la vallée de la Sambre (17e-20e siècle); CAROLE PAYEN, Des hauts-fourneaux à Clabecq : oppositions de riverains, préoccupations environnementales et phénomène NIMBY (1908-1970). Interroger le passé à l'aide du concept de Développement durable; Olivier Lateur, Le paysage des anciens Pays-Bas et ses vestiges antiques au miroir des récits de voyages (XVIº-XVIIIº siècles) : entre patrimoine, imaginaire et curiosité archéologique (co-direction UCL); JACQUES USUNGO, Les routes dans l'univers colonial du Kivi-Maniema (1920-1959) : Mise en place, imaginaires collectifs et incidences sur la société et l'environnement; Aux Badot, L'impact environnemental des activités militaires dans et autour des villes des Pays-Bas méridionaux au 18e siècle (villes du Traité de la Barrière); Kevin Troch, Approche environnementale des territoires charbonniers du Nord-Ouest européen (Belgique et Nord-Pas de Calais) du XVIIIe à la fin du XXe siècle : un développement soutenable ? (co-direction Lille 3) and Romy Gouverneur, Nouvelle physionomie d'un environnement urbain : Hygiène et salubrité des espaces publics et privés à Tournai (1830-1940). 53. G. XHAYET, R. AUSSEM, O. Deferchereux & A. Peters, "L'Environnement et son Histoire. Ressources documentaires et recherches menées au CHST-Ulg", in Science Connexion (revue de la Politique scientifique fédérale), 2009, no. 26, p. 10-15. 54. See : www.unamur.be/henri.

history (The Environmental Challenges of City Life: Resilience and precariousness)55.

## Current and revisited themes in environmental history

The history of pollution and hygiene and urban ecology on the one hand and historical geography on the other hand thus remain important in contemporary historiography in Belgium. Landscape history is currently experiencing a revival in Europe due to the growing interest in the protection of the landscape since the so-called Florence Convention or European Landscape Convention on the landscape, drafted in 2000 and ratified in Belgium in 2005. This urges academics to play a greater role in developing policy and will undoubtedly promote research in the future as well. However, the growing 'practical use' of this discipline often did not provoke deeper scientific research, on the contrary. As we could demonstrate recently, the growing demand of studies often just generates superficial compilation studies since they are mostly financed for only a very short period. The lack of interest from historians in this discipline and the lack of interest of geographers in history also makes that it can be called a 'subdiscipline in crisis', at least in Belgium<sup>56</sup>.

The political discussion on climate change, and the part played in it by man, remains very topical. Debates on what is called 'global warming' also invite research about the effect of man on the climate in the past. Yet climate history is far more complex than it would at first seem, because of the involvement of many disciplines and the difficulty of interpreting the available data properly. This was already evident in the pioneering work of Emmanuel Le Roy Ladurie. For the 'prehistory' of historical climatology - in Belgium and the Netherlands the period before the second half of the eighteenth century - researchers were referred to indirect sources, which are known in the trade as 'proxy records'. Since the eighteenth century, instrumental observations of the weather or temperature, air pressure and rainfall records have also been preserved in most European countries. This was done using precision measuring instruments. Belgium is not well endowed in this area. The oldest systematic daily observations that are still preserved only began in 1763. Although a great deal of data about weather conditions has been preserved, interpreting them is a complicated process. And although we are well informed, the guestion remains how the temperature data are linked to human and in particular industrial activities and their associated production systems. For that matter, this historical research into the climate in Belgium is largely conducted at the Royal Meteorological Institute, sometimes in cooperation with universities<sup>57</sup>. Also related to climate studies, is the study of environmental catastrophes, a theme asking for a dynamic approach which relations between mankind and nature (in all its aspects) are included<sup>58</sup>.

55. See: www.cityandsociety.be/node/13. 56. ERIK THOEN, "La géographie historique, discipline en crise: plaidoyer pour une nouvelle approche : un regard subjectif sur l'étude historique du paysage", in Revue belge de Philologie et d'Histoire, no. 2, 2011 (89), p. 803-819. 57. GASTON DEMARÉE, PIETER-JAN LACHAERT, TANIA VERHOEVE & ERIK THOEN, "The Long-term Daily Central Belgium Temperature (CBT) Series (1767-1998) and Early Instrumental Meteorological Observations in Belgium", in Climatic Change, no. 1-3, 2002 (53), p. 269-293. 58. See for instance: BAS VAN BAVEL & ERIK THOEN (eds), Rural Societies and Environments at Risk, Ecology, Property Rights and Social Organisation in fragile Areas (Middle Ages-Twentieth Century) (Rural History in Europe 9), Turnhout, Brepols Publishers, 2013.

The use of energy is also a major 'hot' theme in environmental history, from the use of wood and peat to fossil fuels and nuclear energy<sup>59</sup>. The debate on sustainability (of energy) and the origin of this idea of sustainability concentrates largely on the way energy sources were managed in history<sup>60</sup>. It is therefore essential to know which raw materials people used in the past to generate energy for household needs (heating, cooking and baking food such as bread) but also for industrial and public requirements (such as public lighting), how they were used and to what extent. Historical ecological research shows that there have been two major changes, both in the recent past. In the nineteenth century, the scale of energy use increased considerably compared to the preceding period, and there was a gradual transition to the definitive breakthrough in the use of non-replaceable fuels. The second major transition occurred in the twentiethcentury. The consequences of the changes for the environment and society in terms of raw materials and energy were significant<sup>61</sup>. The definitive breakthrough of petroleum as an energy source as a result of growing globalisation rendered energy incredibly cheap compared to previous periods, which in turn encouraged consumption and the throw-away society. The link can easily be made between the current debates on energy and the current energy problems such as the possible dangers of nuclear power plants, a theme which still needs further historical research<sup>62</sup>.

The final theme in environmental history that we shall mention here and which has been researched intensively in recent years is 'thinking' about nature. This is by no means the exclusive domain of historians, but also of philosophers, anthropologists, sociologists and biologists. For years the international bible in this field has been Man and the Natural World by Thomas (1984), a book in which he used a wealth of sources to outline the growing interest in nature after 1800. but also, as a consequence, an increasing ambivalence. Nature acquired an aesthetic value. The aesthetic - and ethical - value attributed to nature reached a zenith among nineteenth-century romantic thinkers and artists and was largely confined to intellectual history. In general it is not easy to unearth exactly what the broadly-held views on nature or the environment were. When references are made in public studies to possible harmful effects, the explanation of the facts is not necessarily first and foremost a greater concern for the environment. In the twentieth-century

59. Erik Thoen & Tim Soens, "Mais où sont les tourbières d'antan? Géographie, chronologie et stratégies économiques du tourbage en Flandre (XIIe-XVIe siècles)", in J. M. DEREX & F. GREGOIRE (eds), 2ème colloque international du Groupe d'Histoire des Zones Humides, 2009, no. 14, p. 45-60. 60. Christian Pfister, "Energiepreis und Umweltbelastung. Zum Stand der Diskussion über das '1950er Syndrom'", in Umweltgeschichte: Themen und Perspektiven, Munchen, 2003, p. 61-86. The historical debate about sustainability was also central in a recent project conducted at the Ghent Institute for Public History, at the occasion of the 30st anniversary of the Flemish Public Waste Management Company (OVAM). Torsten Feys studied waste management, soil pollution, public policy and internal changes of the company. See: TORSTEN Feys, Tot de bodem van de materie. 30 jaar OVAM in historisch perspectief, Gent, Academia Press, 2012. See also: http://www.30jaarovam.be. 61. Christian Prister, Wetternachhersage: 500 Jahre Klimavariationen und Naturkatastrophen, Bern, 1999; Peter Brimblecombe & Christian PFISTER, The silent countdown: essays in European environmental history, Berlin/Heidelberg, 1990. 62. See for instance: ERIK THOEN & TIM SOENS, "Kerncentrales bij ons: hoe (on)veilig zijn ze, gezien vanuit historisch perspectief?", in Knack Magazine, 2011, p. 83.

the motives for getting involved in nature and environmental protection were many and varied. Moreover, the content of the objectives has evolved substantially over the years. On a sort of timeline of the history of nature protection, the introduction and hevday of such concepts as picturesque natural beauty, bird protection, nature protection, ecological equilibrium, nature management, nature development, biodiversity, etc. in debates and activities all occupy a specific place. The same goes for environmental management. In the meantime, since the publication of the doctoral thesis by Thiis Caspers, there has been an increasing number of publications tracing the motives for nature protection<sup>63</sup>. These include several theses on views on nature and/or nature protection. It is also worth mentioning Raf De Bont's research into evolution theory in Belgium and, more recently, his research into the circulation of ideas concerning nature protection<sup>64</sup>. It is one of many examples which illustrates the difficulty to extricate the history of scientific disciplines such as biology, medicine, etc., from the thinking on the relationship between man and nature<sup>65</sup>. The research conducted by Leuven historian Evert Peeters into 'Lebensreform', vegetarianism and other forms of modern asceticism, are also clearly related to this66.

### Suggestions for further research

It would seem from the above that ecological history is a very broad field of research that is often, and is regularly intended to be, relevant on a practical level. In terms of theme and methodology of environmental history there is no unity or specificity of environmental history. but various methods from virtually every discipline are used in a broad set of issues. This overview is far from comprehensive: we have barely mentioned rural history and the environmental history of the former Belgian colonial territories, a burgeoning field of research that is worthy of a separate review. Not only the methods and themes are characterized by a great diversity. Another issue in environmental history is the great diversity of sources and the dispersion of archives. Fortunately, a Guide on Archives RegarDing ENvironmental History in Belgium, 18th-20th century, produced by public institutions is in progress. This GARDEN project is supported by BELSPO and led by the State Archives in Mons and the University of Namur<sup>67</sup>. In addition, several centers for private archives have also decided to take care of "ecological" archives. In this regard, two initiatives have to be pointed out in Belgium. In the Southern part, the section "Documentation et Archives" at Etopia (Centre de recherche et d'animation en écologie politique) has gathered archives since the 1960s about ecological associations, citizens' movements, and archives from political ecology (green parties and associated groups)68. In the north, the Amsab ISG (Instituut voor Sociale Geschiedenis) presents itself as the leading archives and informa-

63. THIIS CASPERS, De geschiedenis van de natuurbescherming in Vlaanderen van 1910-1940, Tilburg, 1992. More recently: DIRK BOGAERT, Natuurbeleid in Vlaanderen, natuurontwikkeling en draagvlak als vernieuwingen?, Brussel, 2004. 64. RAF DE BONT, Darwins kleinkinderen: de evolutietheorie in België, 1865-1945, Nijmegen, Vantilt, 2008. 65. An earlier example is: KAREL Velle, Lichaam en hygiëne. Naar de wortels van de huidige gezondheidscultuur, Gent/Leuven, 1984. 66. EVERT PEETERS, De beloften van het lichaam. Een geschiedenis van de natuurlijke levenswijze in België 1890-1940, Amsterdam, Bert Bakker, 2008. 67. See : http://garden. hypotheses.org/. **68.** The guide is accessible at: http://www.etopia.be/IMG/pdf/Etopia ETAT DES FONDS 2010 VF.pdf.

tion centre for environmental movements<sup>69</sup>. As in many other countries, the study of modern environmental movements (in comparison with the "old" nature protection organizations or labour movement) has been mainly the terrain of political scientists and sociologists<sup>70</sup>. Equipped with new sociotheoretical insights and transnational perspectives, but with new empirical research and time perspectives, historians should also (re) enter this field.

It is precisely the cross-fertilisation of different methods and disciplines in the plurality of archival and other sources that is the major strength of environmental history. According to the abovementioned article by Sörlin & Warde (2007) there is a world out there waiting for the field of environmental history, if links can be made to the formation of theory current in the social sciences. Historians must at least question and contribute to the debate on the "grand narratives" concerning the evolution of man and nature. Influential representatives in the social sciences, such as Beck (1992) and Giddens (1994) have made the relationship between man, society and environment an important theme in their work, as well as creating a framework in which this can be studied. Beck argues that we are living in a so-called "risk society", in which the relationship between man and environment, but also between prosperity and poverty and between science and lav knowledge, has taken on a form different from before. Giddens adds that, due to a blurring of the traditions and the increase in the number of complex relationships between the physical and human worlds, the man-nature relationship has changed considerably, also at a conceptual level. According to Sörlin & Warde, whatever we may think about these terms and interpretations, the fact is that such a relatively broad perspective can reinforce the integration of the many environmental historical studies and, moreover, facilitate the connection with political analyses and perspectives. It can also help in formulating a challenging, binding central hypothesis within ecological history. At the end of the day, what we see is a move closer to the achievement of three important aims interdisciplinarity, synthesis and relevance. This can only be done with a global, transnational or comparative perspective, in which specialized and local case studies are placed in a dynamic and non-linear framework.

Taking the first question only, interdisciplinary research is no easy matter, as was proved recently by the related Environmental Studies discipline<sup>71</sup>. These authors use a number of examples to show that interdisciplinary research has proven beyond a doubt to have added value, but that there is a price to be paid, especially in the case

**69.** See: http://www.amsab.be/amsab/milieu/milieu\_nederlands.html. **70.** Stefaan Walgrave, Nieuwe sociale bewegingen in Vlaanderen. Een sociologische verkeninning van de milieubeweging, de derdewereldbeweging en de vredesbeweging, Leuven 1994. For an overview: Anton Van der Der Heijden, "De milieubeweging in de twintigste eeuw", in Belgisch Tijdschrift voor Nieuwste Geschiedenis, no. 3, 2004 (34), p. 445-483. **71.** Schoot, Uiterkamp and Vler, "Practice and Outcomes of Multidisciplinary Research for Environmental Sustainability", in Journal of Social Issues, no. 1, 2007 (63) p. 175-197.

of strong multidisciplinary teams. For fruitful multidisciplinary research, a lot of time needs to be spent on setting up projects, exchanging data and completing projects. It is also essential that researchers are given the freedom to step back a little from their chief discipline. Such institutional problems also occur when looking for a medium for publication: multidisciplinary journals are few and far between. The same sort of

problem arises when looking for funding. With the exception of government, national organisations for scientific research are rarely equipped to deal with applications of a multidisciplinary nature. These are therefore the challenges that face ecological history: the formulation of appealing multidisciplinary projects with meaningful scientific and social questions and the organisation and active recognition of questions for research.

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