Thyssen, G

Odorous childhoods and scent(ed) worlds of learning: A sensory history of health and outdoor education initiatives in Western Europe (1900s-1960s)

Odorous childhoods and scented worlds of learning: A sensory history of health and outdoor education initiatives in Western Europe (1900s-1960s)

Geert Thyssen

School of Education, Liverpool john Moores University, Liverpool, United Kingdom

E-mail: g.thyssen@ljmu.ac.uk

Geert Thyssen is Senior Lecturer at the School of Education, Liverpool John Moores University. His interests are in the social and cultural history of educational reforms, health education, body-sensory education, nutrition education, and modes and aspects of sense making in education. He is convenor of Network 17, Histories of Education of the European Educational Research Association (EERA) and a scientific board member for two peer reviewed history of education journals. His work has received several awards. Forthcoming (co-)authored work centres on time, food, and senses of belonging.

Odorous childhoods and scented worlds of learning: A sensory history of health and outdoor education initiatives in Western Europe (1900s-1960s)

This paper develops a sensory history of health and outdoor education initiatives which featured (non-)formal schooling, analyzing these as belonging to (a) scented and more generally sensed world(s) of learning. Working with photographs as sensory objects of affect, and using as examples Belgian and Luxembourg open-air schools and associated sanitary and social welfare provisions, the paper explores issues that have gone under-researched in sensory scholarship internationally: those of precise educational purposes, methods, processes and effects of sensory engagement, particularly pertaining to "smell". Sensory practices and experiences and uses of senses generally are thereby traced in/as "situated, embodied" movements inextricably "enmeshed" with symbolism. The paper argues that while the educational goals underpinning the initiatives investigated and the approaches and practices characterizing these have changed, some (un)intended effects still have an impact today, for instance through Forest School as given shape in the United Kingdom. The concept of "odorous", or rather "sensuous childhoods", is proposed to denote ways that particular target groups have come to be imagined as in need of explicitly sensorial health and outdoor education.

Keywords: smell; embodied practices and experiences; open-air schools, holiday camps; sensuous childhoods; Forest School

Introduction

In a recent article entitled *Scents and Sensibility,* Karen A. Cerulo (2018, 361) suggests "we make sense of and attribute meanings to smells in ways that both emerge from and recreate the organization of social life," and wonders, "But exactly how does that process unfold?" In her paper, Cerulo draws on socio-cultural theories to understand how – to use her terms – we decipher information (smell) encountered. Learning is only referred to explicitly as a process she herself engaged in whilst conducting her research, and education in turn as the education level obtained by her participants. All these are threads the present article picks up to explore (in)formal sensory learning in entangled contexts of health and outdoor education. Grounded in research of a broader international (Western European) scope,[1] the paper uses as examples

Belgian and Luxembourg open-air schools and related health and social welfare initiatives to analyze the "world(s) of scent" (sense) to which they belonged, as scented (sensed) from the 1900s to the 1960s and up until today. The paper focuses in particular on the open-air school established in Heide-Kalmthout, Belgium in 1904 and those founded in Dudelange and Esch-sur-Alzette, Luxembourg in 1913 and 1928, respectively. The former was created through an Assistance Fund of the Antwerp Teacher Association 'Diesterweg' as an extension of holiday camps organized as of 1893; the latter were set up within an array of social welfare provisions (from holiday camps to preventoriums-sanatoriums, to boy scouts troops, to urban sanitation and housing projects, to wholesale shops) sustained by the Mayrish family and their networks through the steel company 'ARBED' (*Aciéries Réunies de Burbach-Eich-Dudelange*) (Thyssen 2015; Thyssen and Herman 2019).

Scented and sensed worlds of learning

Much has been written from a socio-historical perspective about smell and the senses more generally, following the incisive works of Lucien Febvre (1942), Walter Ong (1967), Gale Largery and David Watson (1972), Ruth Winter (1976), Robert Mandrou (1976) and Alain Corbin (1982, 1986), among others.[2] Work by the Concordia Sensoria Research Team (e.g., Howes 1988; Synnott 1991; Classen 1992), in turn, has been pivotal in stressing the cultural dimension of smell as a socio-historical phenomenon. Yet, while the exploration of scent, as Classen, Howes, and Synnott (1994, 3) have argued, is "in a very real sense, an investigation to "the *essence* of human culture", and scenting has come to be considered less than trivial to the development of anything from "cultural politics of [(self-)]identity" (Bubandt 1998, 70) to "cultural knowledge" (Beer 2000a, 6), at least in the West smell has needed to be sniffed "out of the (…) scholarly and cultural unconscious into the open air of (…) intellectual discourse" (Classen, Howes, and Synnott 1994, 10; see also Howes 1991b). Stereotypical (e.g., gendered,

racialized) symbolic associations of smell with the body, emotion, primitive instinct, animality and the like, have been held responsible for a historical detachment of smell from intellectual endeavor and its relegation to the realm of sentiment and sensuality (e.g. Corbin 1982, 1986; Almagor 1990; Classen 1992; Classen, Howes, and Synnott 1994; Barcan 2014).

The "cultural turn" to the study of smell since the 1990s, across a range of disciplines (Classen, Howes, and Synnott 1994), has "rehabilitated" smell, not just as "a way of sensing the world," but "[just] as importantly (…) [as] a way of making sense of the world" (Bubandt 1998, 48). At the same time, the notion of an even, monolithic Western "hegemony of vision" or "ocularcentrism" has been nuanced (Bubandt 1998; see also: Jay 1993; Taussig 1993) and, with it, albeit to a lesser extent, the thesis of a "revaluation of the senses during the eighteenth and nineteenth centuries" (Classen, Howes, and Synnott 1994, 4; see also: Febvre 1942; Ong 1967; Corbin 1982, 1986; Howes 1988; Synnott 1991). The Western five senses model itself, with its hierarchical repartition of the sensorium (Howes 1988; Synnott 1991; Howes 1991a), going back as far as Aristotle and underlying the hypothesis of an Enlightenment "olfactory revolution" (Corbin 1982, 270; Classen, Howes, and Synnott 1994, 6), has furthermore been reassessed as an historical confluence different from particular non-Western sensory models (e.g. Howes, 1991a, 2002; 2005, 2006b, 2009; Classen, Howes, and Synnott 1994; Pink 2011). The apparent search "for another, more benign 'perceptual' grounding for knowledge" in smell, however, based on "exotic uses" thereof (Bubandt 1998, 49), has been questioned as risking to perpetuate dichotomies between supposed higher and lower senses.

More recently, the idea of cultural inscription of the senses has been complicated and, while overall more "dynamic relational" understandings have congealed around the status and entanglement of "culture" and "nature", "body" and "mind", people, places and materials, and perception and experience, to some extent conflicting views of sensory ways of sense-making have been held. Thus, there are those who have pointed to "multiple respects in which culture

mediates sensation and sensation mediates culture" (Howes 2006b, 162), with cultures being "conceived of as embodying different ways of sensing" and the senses, in turn, "as mediating the relationship between mind and body, idea and object, self and environment (both physical and social)" (Howes 2006a 122; see also Howes, 2003; Howes 2011a; Śliwa and Riach 2012). Central to this position is the view that "sensory experience of the world" involves "sensation as always already mediated by representation (language and images)" (Howes, 2006a). Others argue against the idea that "in order to 'make sense' of the world (…) induced sensations (…) [are] cognitively assembled (or 'constructed') in terms of received cultural categories" (Ingold 2011a, 314) and hold that "senses are not keyboards or filters that mediate the traffic between mind and world (…) [but] rather (…) aspects of the functioning of the living being" (Id., 315), that is: "modes" or "modalities" of "active[, exploratory] engagement with the world" (Ingold 2011a, 314; 2011b, 325; see also: Ingold 2011c, 11). Non-representational theory underpins this theoretical position.[3]

Debates have worked to overstate the differences between both positions, which share an interest in sentient beings as "bundles of interconnected experiences and properties" whose "various modes of 'being-in-the-world'" (Howes 2006a, 115, 122) involve "unfolding of (…) relations and processes" (Ingold 2011b, 324). Indeed, it makes sense to stress the inextricable entanglement of sensing the world and/in (a) world(s) of sense (Howes 2011b). Sensory ways of sense-making conceived in this way "body forth a *sensuous self*: a performative, reflexive, perceptive, intentional indeterminate, emergent, embodied being-in-the-world", a self that is "sensing and sensed: (…) individual and social, body-within-mind, and mind-within-flesh" (Waskul, Vaninni and Wilson 2009, 5, 6). Along these lines, some have referred to meaning-attribution through scent as implicating a "fully entwined system including neural operations, corporeal experience, and (…) cultured environments" (Cerulo 2018, 362).

That said, across disciplinary fields, sensing and sense-making have increasingly been studied as multisensorial or intersensorial – and multimodal and multimedia (Howes 2006a,b; Howes 2010; Pink 2010; Jenner 2011; Beer 2014). Even studies within the neurosciences and cognitive psychology now readily explore perception as multimodal and multisensorial, with olfaction having come to be conceptualized as more than a simple "physiochemical" process (Wilson and Stevenson 2006) and implicating both integrated and asymmetrical processes of sense-making (e.g., Sullivan, Wilson, Ravel and Moury 2015). Likewise, simple connections between sensory modalities (for instance, "smell") and sense organs (like the nose) have been abandoned, not just with reference to perception but to learning as well (e.g., Casini 2017).

"Sensuous scholarship" has thus shifted its focus from analyses of singular senses and related symbolism to intersensory studies of practice and experience involving the senses and uses thereof (Pink 2010; Howes 2010, 2011a; Grosvenor 2012). Scholars have thereby urged us to consider both the senses and related learning and knowing as "situated" (in) "embodied practice(s)" and "movement(s)" (e.g., Ingold, 2000, 2011a; Pink 2010, 2011; Jenner 2011).

Learning to scent (sense) and make sense

While learning/education has been implied in historical and contemporary sensory processes of "socialization" or "enculturation" (e.g. Corbin 1982, 1986; Beer 2000a,b; Śliwa and Riach 2012; Kettler 2015; Howes 2011b), few sensory anthropologies and related studies have dealt with this in any great depth. Studies in the neuro-/biosciences and cognitive psychology have further reduced sensory learning to "information processing" (Wilson and Stevenson 2006; Sullivan, Wilson, Ravel and Moury 2015), as have certain sociological studies adopting a deciphering-through-linked-types-of culture approach (Cerulo 2018). Histories of education, in turn, have only slowly started focusing on sensory aspects of learning, roughly two decades ago, and but recently explicitly adopted or advocated sensory history approaches to schooling

and learning (e.g.: Burke and Grosvenor 2011; McCulloch 2011; Grosvenor 2012; Priem 2016; Goodman 2017; Verstraete and Hoegaerts 2017).

Although histories on "edible landscapes" of schooling (Burke 2005), among others,[4] have touched upon what (after Porteous 1985) tend to be termed "smellscapes" (e.g.: Classen, Howes, and Synnott 1994; Beer 2000b; Law 2001; Low 2005; Sutton 2010; Jenner 2011), the "scented" world of education has so far received scant attention. This is curious, for instance given the historical importance ascribed in Western educational thought to "fresh" air and sea, forest, heath, and other scents.[5] Various health and outdoor education initiatives emerged from imaginaries of sensory engagement with such smells, not coincidentally from the second half of the nineteenth century onwards, amidst rapid industrialization and urbanization.

In what follows, then, the scented (sensed) world(s) of education to which open-air schools in Belgium and Luxembourg belong(ed) are studied, with reference to related social welfare provisions and to similar initiatives in Western Europe. A key question posed is that of how "smell" has "come to work" educationally in practices and experiences "enmeshed" with symbolism in these contexts. That is, what educational uses emerge of "smell" and (or through) other senses beyond the figurative and rhetorical, in terms of teaching and learning goals, methods, processes and effects? It is hypothesized that situated, embodied movements related to the initiatives studied in these respects, and bound up with imaginaries of "odorous childhoods", still have an impact today, for instance via Forest School in the United Kingdom.

Methodologically, photographic materials are used, as well as written primary sources (published and archival) including monthly and yearly bulletins and press articles relating to the initiatives studied, as entranceways into a "thick-textured" (Howes 2010, 340) account of sensory experiences and practices. The photographs, some of which exist(ed) as postcards, are thereby not merely scrutinized for "visual representation of smell" (Wicky 2016, 365) but, as "objects of affect", for the "expanded sensory realm of the social in which [they](…) [were

and] are put to work" (Edwards 2012, 228). While it has been pointed to limits of photographs in terms of sensual qualities they can capture, their ability to embody, enact, and elicit sensory and emotional engagement has also been recognized (e.g., Howes 2006b; Thyssen 2007; Pink 2011). Here, they have sometimes been reproduced in printed sources, and thus, theoretically, all sources used are approached as sensory materials entangled with other non-/human beings. With reference to the feminist theorist Karen Barad (2007, 3, 25, 33, 94), these materials are analyzed "diffractively",[6] *through* one another – in search of differences that "matter" as both (sensorial) "substance" and "significance" (sense) –, as they "intra-act"[7] with "apparatuses of bodily production" (sense organs, material-conceptual tools implicated in sensory engagement with them, etc.).

Cities, industries, odorous others, and open air

The open-air schools connected to Diesterweg and ARBED and similar health and outdoor education initiatives developed as responses to challenges related to urbanization spurred by industrial development, building on earlier, nineteenth-century sanitation reforms. Smell, as chemical substance and metaphor, gradually took center stage in urban imaginaries of filth, disease and moral vice alike (Terranova 2007; Rheinarz 2014), and Alain Corbin's study on *Odor and the French Social Imagination* (1986) now sits firmly within a plethora of studies that have conjured up complex, changing sensitivities to odor and malodor (e.g. Barnes 2006; Curtis 2008). Full-fledged sanitation movements indeed emerged across the West as of the 1820s (the 1840s in Belgium and the 1860s in Luxembourg; Lorang 1995; Nys 2002), firstly, to tackle smells linked to supposed miasma (Classen, Howes and Synnott 1994; Poiret 1998) emanating from drains, wells, cesspools and sewers. Around the 1860s the sanitary offensive was increasingly grafted on the level of "social emanations" (Corbin 1986, 47) and behaviors, as attention turned to "people's effluvia, breath, and body odor" (Classen, Howes and Synnott

1994, 79). Degeneration theories, like those developed by Benedict Augustin Morel,[8] further stressed the severe impact of profligate behaviors, especially alcoholism associated with filth (MacPhee 1992; Curtis 2008).

As the absence of smell became synonymous with a range of civil values such as self-control, order, and patriotism, odorous others were identified as potential disruptors of moral order (e.g., Largey and Watson 1972; Classen 1992; Beer 2000b; Bubandt 1998; Labrie 2001; Nugent 2009), with intricate links being made between moral and physiological smell contamination (Curtis 2008). Around the 1880s, infection theories came to challenge "miasmatism" (Barnes 2006, 1; Aisenberg 1999; Tomes 1999) and degeneration theory, yet did not radically contradict these: "the stink-disease association was never truly divorced" (MacPhee 1992, 90; Classen, Howes, and Synnott 1994; Barnes, 2006; Curtis 2008). The thesis, however, of a consequent gradual "deodorization" of society (Corbin 1986; McPhee 1992; Classen, Howes, and Synnott 1994), even at the level of personal cleanliness (Vigarello 1988), has been nuanced and critiqued for perpetuating a "medievalist, (…) imperialist, racist and/or Orientalist stereotype that 'simpler societies' lived amid stench and squalor" (Jenner 2011, 339-340; see also Candau 2000).

Smells retained material and symbolic importance during the late nineteenth and early twentieth centuries and in a rapidly industrializing West gave way to holiday camps and open-air schools.[9] In Belgium and Luxembourg, as elsewhere (e.g., Birmingham), they sometimes figured within an array of "social welfare provisions" including urban sanitation and housing projects, established by industrialists and members of associated networks, ironically in part to counter olfactory pollution[10] and other risks to health caused by industry itself (cf. Thyssen 2010, 2015). They became intimately bound up with concerns of disease prevention and child protection (e.g. Lorang 1995; Ferguson 2004; Connolly 2008), as class differences, sometimes compounded by ethnicity, in terms of (self-)exposure to perceived malodor helped to identify

those in need of morally tainted, olfactory reform (Corbin 1986; Classen, Howes and Synnott 1994; Beer 2000).

This gave way to a certain colonization of the world of the poor and children, with, as Ian Grosvenor (2012) has noted, descriptions of the slums they inhabited resembling those of "human zoos" belonging to wider contexts of colonial and racial sensitization along sensorial lines.[11] Slumming (Koven 2004), he has argued, particularly by child protection workers, was a common phenomenon whereby smell featured prominently, among other senses. This goes also for the Belgian and Luxembourg contexts. Thus, in 1907, Diesterweg members reported: "We have visited them, these small ones, in their sordid slums, in their dank upstairs rooms, in their narrow alleys and streets, with their ever-lingering odor of poor people. We have seen them, skinny and pale, so withering and delicate."[12] Smell and other senses thus worked to co-produce pretuberculous children (Bryder 1992) whose delicateness was ascribed to unhealthy multisensory exposure. Class-inflected, they also operated to demonstrate the keen nose and other sense organs of teachers, among professional groups seeking higher status.

In Luxembourg, Aline Mayrish-de Saint Hubert, the wife of the then general director of ARBED, together with other women of the Association for Women's Interests over which she presided and members of the League for Social and School Hygiene, conducted detailed surveys on the living conditions of the poor in the capital's districts of Grund, Clausen and Pfaffenthal. From the report on these surveys, smell emerges as a key marker of poverty and disease, a threat above all to women and children.[13] The latter, as the report's introduction evoked, had to "vegetate [...] as withered plants" in "humid dwellings without air or light".[14] Data collected, in turn, conjured up sensory images. In total, ninety houses or 258 dwellings were visited, allegedly home to 1,216 people, among whom 593 children below the age of fourteen, the sample including five to six percent of the then Luxembourg population. Of the dwellings inspected, 21.5 percent consisted of a single room. Some sixty percent of all people

in the sample lived in one- to two-room dwellings.[15] Lavatories apparently left a particularly frightful mark; entire streets had no toilet facilities whatsoever, as applied to 18 percent of the dwellings checked. In some cases, up to thirty-seven families used a single lavatory.[16]

As elsewhere (Inglis 2007; Grosvenor 2012), sewage as matter and metaphor worked to trigger the imagination. Indeed, the report continued: "in several houses cesspits are to be found in the basement from which emanates a plague-like smell, or in the garden where they are covered with foul boards and constitute a continuous risk of poisoning or collapse for playing children".[17] A further description went as follows: "Young married couple inhabits a small downstairs room, collected bones and rags lie in the single room, as well as the dog and dog cart. The smell is to make one faint".[18] Another entry stated: "Family with eight children lives in one room and two small spaces under the roof. ... Children collect dog droppings for tannery. Bucket of them in the room. Horrendous smell".[19] And, finally: "Tobacco workers' family with eight children occupy four small rooms in a backside building. The school-going boys often have to work until 11.00 at night (…) [and] start working immediately after school. The three boys sleep in the working room; it smells horribly of tobacco lying around".[20]

Such vivid accounts entangling people and places, material conditions (e.g., access to sanitary housing and facilities, manual adult and child labor), particular smells (of excrement, lavatories, tobacco) "empowered by the imagination" (Classen, Howes and Synnott 1994, 87) forcefully acted to create a sense of urgency to legislative reform and state and private action, for instance through open-air schools. Smell was inscribed in the very concept of this type of institution, defined at the First International Conference on Open-Air schools in Paris 1922 as: "an educational institution situated *outside of the city* in *favorable conditions of exposure* (…) for non-tuberculous children (…) in need of a special school and hygiene regime …".[21] Rural fresh air was implied, as opposed to foul city air, and freely circulating air versus the saturated "musty" air of the regular school. Indeed, the modern "hearing school" (Burke and Grosvenor

2011) was also a "smelling school". Yet, whereas in the United Kingdom "open air" as of the Edwardian era performed imaginaries of honesty and goodness (Saint 2003), in Imperial and Weimar Prussia the forest came to matter more for the nation's (self-)identity, with open-air schools there first being called *Waldschulen* (e.g., Châtelet 2011). These terms "mattered", as "curative value" was attributed certain "natural elements" (Châtelet 2011, 54-55) implicating smell. Thus, despite growing scientific scepticism about the healing powers of aromatics and climate, pine trees, for instance, were still regularly accredited antiseptic properties (Collins 2012, 223), as were heath and birch and oak trees in Diesterweg's and ARBED's institutes.[22]

Scents, senses, and health and outdoor education

Soap, water, and scented cleanliness

Smell mattered in more ways than on an atmospheric level in the Diesterweg and ARBED schools, although in Antwerp, Dudelange, and Esch one was keen to stress the ideal conditions of exposure of the institutes on a terrain rising above the Scheldt and Meuse basins, in a city park, and in a man-made valley, respectively, conveniently located kilometers away from the polluting chimneys and smother "thick of steam, smoke and dust" of the industrial cities.[23] To explore more material-symbolic entanglements of scent, a first photograph from a Diesterweg holiday camp ("colony") held in Hamois, August 1900, four years prior to the opening of the open-air school, is analyzed diffractively through early written sources of this school and its Luxembourg counterparts, specifically in relation to hygiene (see Figure 1). Three further photographs will be analyzed to entangle "smell" with object lessons in natural sciences and gardening and dietary practice, respectively.

Figure 1. “By the Bocq. The washing of colony-goers in Hamois, Aug. ’00” Courtesy of Liberaal Archief/Liberas Ghent [Photographer unknown.]

Hygiene featured prominently in Diesterweg’s holiday camps, as it did in its open-air school and those of Dudelange and Esch, making up a key part of the initiatives’ non-formal education regimes. These regimes helped to effect particular senses of cleanliness and health in children recruited who were boys and girls for all initiatives studied here. Yet even in these liberal contexts, hygiene, as it regarded washing (and sleeping and toilet visiting), was an affair that saw the sexes separated and to some extent experience gender-specific sensory education. Of course, these regimes aimed to “deodorize childhoods” in that distinct scents having come into view in the West were targeted – particularly body odors. Disgust elaborated around such smells, as a natural-cultural phenomenon further related to social order as much as cleanliness (Howes 2006b; see also: Bubandt 1998; Smith 2007). Sweat, apart from fecal odors, had become a specific target of deodorization in Western countries (Jenner 2011) and with Vigarello (1988), inspired by Norbert Elias, a burgeoning literature

has studied this process as one of increased if uneven and subverted civilization. Absence of smells had come to denote hygiene (Classen, 1993) but the initiatives analyzed here also worked to effect "reodorization" of childhoods.

Such reodorization, at least in the Diesterweg context from the 1900s to the 1920s was still explicitly related to health on a physiological level. Indeed, "sniff[ing] with lust the salty sea breeze, the sharp mountain air, the balmy heath and forest smells. From this (…)[children] gain pure, strong blood and new life",[24] one claimed. The figurative matters, as it reveals what was understandable and actionable, and while here it functioned partly to ascribe powers to air and its sensory qualities that (more expensive) meatstuffs were understood to provide (Bryder 1992), the above was further articulated in explicit descriptions of moral and health education. Grounded in the "basic physiological principle" that the body wears out, blood's strength was thereby associated with food and air alike and its purity with internal organs, as well as sweat glands, life in the open-air, urinating, washing and bathing.[25]

If air – "mattering" also through the photograph(s) included here, if inconspicuously at first glance, from a present-day perspective – was held to strengthen and purify those assumed weak and impure, water and soap made sense in similar ways as children learnt to apply these to specific body parts. In the Diesterweg context, they were taught to clean their hands, faces, necks, ears, breasts, and teeth each day and take footbaths and a whole bath or shower once a week.[26] A similar sanitary regime, including also daily respiratory exercises, sunbaths, and the obligatory lengthy after-lunch siesta, characterized the Luxembourg institutes until at least the early 1960s, to the regret of some and joy of others.[27] The health regime there allegedly fitted within a "curative", "medical treatment",[28] which in Dudelange entailed occasional plunges in the school's swimming pool, and for heart patients or scrofulous pupils, bi-weekly carbonated saltwater baths surveyed by two city nurses of a charitable congregation.[29] Pools, bathtubs, and showers, as technologies proudly installed and photographed in both contexts, were often

still inaccessible to working-class homes, but not so the wooden tubs, enamel bowls, watering cans and soap bars pictured here. The soap of which the brand is unknown (in Belgium, Sunlight,[30] among others, was to dominate the market), together with the water of the Bocq river, and the greenery in the fore- and background conjure up (a) sense(s) of "freshness" and "cleanliness", with splashing water into one's face, letting soap and water foam into one's hands or hair and reach other areas of the body, and carefully drying oneself being as much about touching and inspecting as about smelling. In this sense, the photograph enacts intersensory imaginaries of the removal of dirt and malodor and of refreshment as learnt habits "re-turning" (Thyssen and Herman, 2019) in other places and times.

Apart from soap, other modern commodities may have made for particular scent/sense experiences in the contexts analyzed. In Diesterweg's open-air school, for instance, girls, saw their hair regularly combed, and treated with a disinfectant to prevent vermin;[31] during the first week of their stay, a herbal (Sabadilla) tincture was applied to their hair for this purpose. Boys did not receive these treatments; their hair was to be cut short prior to enrolment and once more during their (at least) three-month boarding school stay. If fleas or lice nevertheless reoccurred, boys and girls could be sprayed copiously with DDT.[32] Regular changing of clothes was further to prevent undesirable smells; the children's parents were made to wash their dirty laundry every week, and Diesterweg staff inspected their work.[33] Finally, windows in all open-air schools were normally kept open day and night. In short, smell, as both absence and presence (Stenslund 2016), here worked to promote "odorous" childhoods through silent, non-formal education. At least initially, smells could still be seen as being embodied, thereby transforming children's physiologies (cf. Jenner 2011, 349); more generally, they contributed to the development of new class- (and ethnicity-)inflected and gendered senses of self, purity, and order.

Reoderization as sacralization of childhoods

Smell helped de-/re-odorize childhoods differently still, through powerful associations around specific target groups. Diesterweg's initiatives, for instance, initially targeted children labeled as "sickly blooms of humanity".[34] Yet scrofulous, with swollen glands, tooth decay, infections of the respiratory tract, skin rashes and head lice, the clientele of the school at times appeared to have a revolting physicality,[35] which was most aptly described in olfactory terms. Although children recruited were to be seen as "blameless blooms",[36] one occasionally dared to declare: "They have to be re-educated (…) these weak paupers",[37] as in each new group arriving there were "elements", which differed from the rest in "dirtiness".[38] In the case of bed-wetters, one spoke of "filthy" children, who at times also soiled themselves during the day and in terms of their natural needs, were at the level of wild animals persisting in a "wicked vice".[39] Blaming mothers for training young cats or dogs but not their offspring, one argued against excluding or punishing these children; instead, instilling virtuous habits in them, adapting their dinners in terms of liquids, and waking them up at night for toilet visits were proposed to prevent any sensory discomfort and material damage.[40] The Luxembourg schools catered to similar target groups,[41] aged eight to twelve – an age category thought to be particularly prone to "morbid conditions".[42] Here, smell did function to exclude children: for instance, those afflicted with *ozena*, a disease of the nose impairing the sense of smell and causing an odor now described in Western medicine as nauseating; children with *impetigo*, a highly contagious skin disease causing blisters in the face from which pus oozes and leaving red marks; and those suffering from involuntary defection or chronic urine incontinence.[43]

For some recruited from among the poorest, at the end of an open-air school stay one occasionally observed: "It were all ugly ducklings when they arrived, and now they seem like beautiful swans."[44] Yet, often more olfactory terms had to express a transformation unfolded: "languishing flowers" could be seen to 'flourish and smell'[45] as 'the most fragrant bouquet[s] of flowers'.[46] The figurative use of flowers has a long tradition, if, as Seaton (1995) has noted,

one without any generally attributed meanings. Thyssen and Depaepe (2012) have linked uses of smell in this context to (secular-)religious forms of sacralization, which operated to redeem childhoods as sensuously innocent, if not immaculate.

Worlds of green and fragrant object lessons

Greenery and nature more generally likewise "mattered" in the health and outdoor education initiatives analyzed here, within a "colonial logic of primitivism" attached to "verdiant, pre-modern sites" (Drobnick 2012, 198) aimed at countering new urban lifestyles. Gardening and natural sciences thus often featured in open-air schools within an integral education based on "object lessons" as part of a reduced regular school curriculum. Both formal and non-formal teachings were thereby grounded in direct observation of luscious nature along multi-sensory lines. In the words of the people of Diesterweg, "It is above all a matter of teaching how to use the senses, to use them well. Arousing attentiveness, sharpening judgment, teaching how to compare correctly, is central."[47] Active use of senses had to "leave a strong impression of *moral* or *aesthetic* sentiment".[48] A photograph enacting (inter- or) multisensory engagement with nature for this purpose is that featuring the Diesterweg schoolteacher Walter Claessens surrounded by "his friends" (Metzemaekers 1979, 72-73) and supposedly teaching about the great diving beetle sometime in the 1940s (see Fig. 2). Glass bowls, and what seems like an improvised fishing net, hint at hands-on activity at a mere in the Kalmthout heathlands, with attentive looking, eager pointing, and the like constituting close observation within an object lesson by then no longer involving a blackboard. Whatever the concrete object of a lesson, at the Diesterweg school one aimed above all to instill in children love of nature understood in a particular sense.[49]

Figure 2. Natural sciences 1940s [Postcard reproduced in Metzemaekers (1979).] Courtesy of Private Archive Schoolkolonie Diesterweg.

While in the Luxembourg cases explicit descriptions of educational methods and goals are lacking, the above resonates with practices internationally. Thus, at the aforementioned Paris 1922 conference, a report by a certain Miss Chauveau on the operations of a French open-air school in Monnetier-Mornex near Geneva, improvised for one summer in 1918, referred to an integral object lessons-based education addressing all senses with the aim of developing attention, memory, judgment, and sensitivity skills. The teaching of smell, together with taste, was mentioned after that of sight, hearing and touch and before that of a "muscular sense". More details of such teaching conceived by Chauveau can be found in a booklet edited by Dr. Armand-Delille and Dr. Wapler, who set up the school in which she briefly worked. In this booklet the object lessons she taught, by "their precision" were said to have "the value of a medical observation in terms of sensory development".[50] Each object studied by the children was to be approached from the following perspectives:

> Sight. – Different parts of the object, their enumeration: form, size, color. Movement (if applicable).
> Hearing. – Sound produced by the crash or a fall of the object. The qualities of the sound.
> Touch. – Consistence, form, roughness, polishing, temperature.

> Muscular senses. – Weight, traction resistance
> Sense of smell. – Different operations allowed for the exercising of memory and judgment.

The explicit entanglement of smell (and taste) with memory and judgment, aesthetics and morals, fitted within a worldly education whereby children, using all senses, had to "learn and understand the world self-consciously, free from dogmatic thinking".[51] In the Diesterweg context, this acquired a purposely anti-clerical connotation, which it lacked in similar Catholic Belgian institutes like those of Sint-Ludgardis,[52] or in Luxembourg, where religious education was provided. That said, in most cases, a worldly education was nurtured by allowing children, for instance, to garden their own flower or vegetable plots. Thus, one hoped that as adults they would not have frequent recourse to a pub and fall prey to alcoholism. Curtis's (2008) concept of dietetics here helps to illuminate how the senses operated within a program more generally promoting healthy, moral lifestyles. Photographs of natural sciences or gardening (see Figure 3) in this context did not just act as illustrations to reports but in the open-air schools studied here also as postcards, which, often along with flowers, found their way into children's homes where they served as tangible reminders of sensed ways of living. An autochthonous middle-class "sense of homeliness" in itself arguably emerges from the third photograph scrutinized here as both study object and educational purpose bound up with sensory learning. Groups of girls and boys organized according to size, among whom no doubt some belonging to migrant families, can be seen posing around a central plot of begonias, a type of flower not particularly known for its strong scent but rather for its overall aesthetic appearance. Photographs like these then performed fragrance as part of an integral aesthetics hoped to find its way into working-class families' domestic life. In so doing, they, in turn helped create distinct "odorous childhoods" deemed particularly in need of sensory education.

Figure 3. Gardening 1910s [Postcard reproduced in Ewert and Urbany (1914).] Courtesy of Dudelange City Archives.

Textured flavors and senses of belonging

One other key part of the sense(d) world of health and outdoor education studied here regards nutrition. In the initiatives studied here, as elsewhere, slight overfeeding characterized dietary practice. The calorific value of (three to five) daily meals offered indeed exceeded children's needs, which made for appealing statistics and descriptions of their weight and height gains.[53] Meals also had educational value by allowing one to instil "good", "clean" eating practices.[54] In terms of food, the schools upheld an ideal thought to be attainable and worthy of emulation in the humblest of working-class families, granted that parents spend their pay check on foods containing the necessary proteins, carbohydrates and fats,[55] in Luxembourg preferably in an ARBED wholesale shop. In the Belgian institute much food was produced on site, with "fresh and pickled" vegetables coming from children's own plots,[56] and eggs and meat from chicken pens, etc., constituting objects of study in themselves. The "edible" (Burke 2005) school world was thus a sense(d) one (Duruz 2002; Law 2001; Sutton 2010), working to promote particular senses of belonging. Nonetheless, to some extent families maintained their eating

habits,[57] and children at times also resisted the open-air school diet, as the taste (and smell?) of vegetables, or instance, could not charm everyone (Blau 2007).

"Ego-documents" offering insight into the sensory experiences of children themselves, unfortunately, are in short supply. One memoir encountered, however, is remarkably sensorial in quality. Its narrator, Lucien Blau (2007), describes his earliest memories of the Brill quarter in Dudelange in colors: green for the trees adorning many gardens, fences and gates and wire mesh separating the gardens; red-brown for the bricks of many houses; and white for painted facades of some houses. When describing lived experiences of his stay at the open-air school, however, he turns to smell: the stench – especially in summertime – of the slaughterhouse not coincidentally oriented on the periphery of the urban landscape, where the children gathered in the morning to walk towards the forest school; the aroma also of the forest: the smell of humus and trees. His was but one of many odorous childhoods to which health and outdoor education initiatives contributed. The fourth photograph reproduced here, showing boys and girls seated at separate tables having lunch at a park restaurant initially serving as the school canteen whilst being guarded by their schoolteachers hints at countless other such childhoods entangled with specific sensory practices and experiences. White bread, milk and milk-coffee featured prominently on the menu at the time, and supposed keen drinking on the part of boys and girls in the background synchronously contrasting with looking into the camera by others in the front entangles such "situated, embodied practices" with imaginaries of belonging (see Figure 4).

Figure 4. Lunch 1910s [Postcard similar to one reproduced next to a graph of children's weight gains in Ewert and Urbany (1914).] Courtesy of Dudelange City Archives.

Forest School is a current form of outdoor provision gaining distinct popularity in the United Kingdom and, as a "specialized learning approach" (FSA 2019), adopted (usually) by (nursery and primary) schools as a package added on to the regular curriculum, it contributes to new "odorous" or "sensuous childhoods". It is presented as offering "ALL learners regular opportunities to achieve and develop confidence and self-esteem through hands-on learning experiences in a woodland or natural environment with trees," but its claim to "relevance 'for all ages and client groups'" has been questioned (Kemp and Pagden 2018, s.p.). Coming in a great many forms, Forest School's frequent use for personal, social and emotional aspects of learning and development nonetheless brings into view specific children: those with learning "conditions" like ADHD, for instance, and more generally, the very young. In so doing, it co-creates childhood, and specific childhoods, as deemed in particular need of sensory education.

Conclusion

Going back to Cerulo's (2018) suggestion that sense-making and meaning-attribution through

smell both constitute and are constituted by ways that cultural life is organized, from the study conducted on health and outdoor education initiatives in Luxembourg and Belgium and other places, it can be said that "smell" has come to operate intersensorially in educational work in such contexts while entangling experiences and symbolism. Beyond deciphering information, sensing the world as "situated, embodied practice" was affected by specific educational goals and methods yielding various effects. Non-formal education worked to "reodorize" particular parts and aspects of children's bodies and promote new senses of self/other in terms of purity and order. Formal and non-formal object lessons, specifically in the area of gardening further were embedded within a worldly education aimed at "directing" attention, judgment, memory comparison towards the development of distinct, sometimes anti-clerical senses of aesthetics and morality. Virtuous-sensuous entanglements emerged also from dietary practices intent on fostering particular senses of belonging, for instance, to "engineered communities" (Thyssen, 2015). From all this emerge imaginaries of "odorous" or rather "sensuous childhoods", used to denote ways in which along such lines as physical and/or mental condition, age, class, and ethnicity, particular target groups have come to be imagined as in need of explicitly sensorial health and outdoor education. Sensuous scholarship into such education initiatives, including Forest School as currently given shape in the United Kingdom, has the potential of revealing not only beneficial but also potentially harmful effects of such imaginaries.

Disclosure statement

The author confirms that no financial or other benefit has arisen from the direct application of this research.

Acknowledgments

I wish to thank first of all Lynn Fendler for providing the impetus for this article (via Karin Priem, who is thanked for this); I further owe gratitude to Ian Grosvenor for offering helpful comments throughout and joining me as co-editor of the special issue of which it is part, and to David Howes and the blind reviewers for their insightful and encouraging suggestions.

References

Almagor, U. 1990. “Odours and Private Language: Observations on the Phenomenology of Scent.” *Human Studies*, 13: 253-274.

Aisenberg, A.R. 1999. *Contagion: Disease, Government, and the “Social Question” in Nineteenth-Century France*. Stanford: Stanford University Press.

Barcan, R. “Aromatherapy and the Mixed Blessing of Feminization.” *The Senses and Society* 9 (1): 33-54.

Barad, K. 2007. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. London: Duke University Press.

Barnes, D.S. 2006. *The Great Stink of Paris and the Nineteenth-Century Struggle Against Filth and Germs*. Baltimore: Johns Hopkins University Press.

Beer, B. 2000a. “Im Reich der Sinne: Plädoyer für eine Ethnologie der kulturellen Wahrnehmungsweisen.” *Ethnoscipts* 2: 6-15.

Beer, B. 2000b. “Geruch und Differenz: Körpergeruch als Kennzeichen konstruierter ‘rassischer’ Grenzen.” *Paideuma* 46: 207-203.

Beer, B. 2007. “Smell, Person, Space and Memory.” In *Person, Space and Memory in the Contemporary Pacific*, edited by J. Wassmann and K. Stockhaus, 187-200. Oxford: Berghahn.

Beer, B. 2014. “Boholano Olfaction: Odor Terms, Categories, and Discourses.” *The Senses and Society* 9 (2): 151-173.

Blau, L. 2007. *Mam Schucos-Auto an den Zinema Royal: Eng Kandheet am Brill – Geschichten*. Ultimomondo: Nouspelt.

Bryder, L. 1992. “‘Wonderlands of Buttercup, Clover and Daisies’: Tuberculosis and the Open-Air School Movement in Britain, 1907-39.” In *In the Name of the Child: Health and Welfare, 1880-1940*, edited by Roger Cooter, 72-91. London: Routledge.

Bubandt, N. 1998. “The Odour of Things: Smell and the Cultural Elaboration of Disgust in Eastern Indonesia.” *Ethnos* 63 (1): 48-80.

Burke, C. 2005. “Contested Desires: The Edible Landscape of School.” *Paedagogica Historica* 41 (4-5): 571-587.

Burke, C. and Grosvenor, I. 2011. “The Hearing School: An Exploration of Sound and Listening in the Modern School.” *Paedagogica Historica* 47 (3): 323-340.

Candau, J. 2000. *Mémoire et expérience olfactive: Anthropologie d'un savoir-faire sensoriel.* Paris: PUF.

Casini, S. 2017. "Synesthesia, Transformation and Synthesis: Towards a Multi-Sensory Pedagogy of the Image." *The Senses and Society* 12 (1): 1-17.

Cerulo, K.A. 2018. "Scents and Sensibility: Olfaction, Sense-Making, and Meaning Attribution." *American Sociological Review* 83 (2): 361-389.

Châtelet, A.-M. 2011. *Le souffle du plein air: Histoire d'un projet pédagogique et architectural novateur (1904-1952).* Geneva: MetisPresses.

Classen, C. 1992. "The Odor of the Other: Olfactory Symbolism and Cultural Categories." *Ethos* 20 (2): 133-166.

Classen, C. 1993. *Worlds of Sense: Exploring the Senses in History and across Cultures*. New York: Routledge.

Classen, C., Howes, D., and Synnot, A., eds. 1994. *Aroma: The Cultural History of Smell*. London: Routledge.

Collins, J. 2012. "Life in the Open Air: Place as a Therapeutic and Preventative Instrument in Australia's Early Open-air Tuberculosis Sanatoria." *Fabrications: The Journal of the Society of Architectural Historians, Australia and New Zealand* 22 (2): 208-231.

Connolly, C.A., 2008. *Saving Sickly Childen: The Tuberculosis Preventorium in American Life, 1909-1970*. London: Rutgers University Press.

Corbin, A. 1982. *Le miasme et la jonquille: L'odorat et l'imaginaire social, 18^{e}-19^{e} siècles*. Paris: Aubier.

Corbin, A. 1986. *The Foul and the Fragrant: Odor and the French Social Imagination*. Translated by M.L. Kochan, R. Porter, and C. Prendergast. Cambridge, MA: Harvard University Press.

Curtis, B. 2008. "'I Can Tell by the Way You Smell': Dietetics, Smell, Social Theory." *The Senses and Society* 3 (1): 5-22.

Drobnick, J. 2012. "Towards an Olfactory Art History." *The Senses and Society* 7 (2): 196-208.

Duruz, J. 2002. "Rewriting the Village Geographies of Food and Belonging in Clovelly, Australia." *Cultural Geographies* 9 (4): 373-388.

Edwards, E. 2012. “Objects of Affect: Photography beyond the Image.” *Annual Review of Anthropology* 41: 221-234.

Ewert, J. and Urbany A. [1914]. *Die Waldschule der Stadt Düdelingen, gegründet 1913 durch die vereinigten Hüttenwerke Arbed, Abteilung Düdelingen: Einrichtung und Organisation im ersten Jahre ihres Bestehens*. Luxembourg, Soupert.

Febvre, L. 1942. *Le problème de l’incroyance au XVI^e^ siècle: La religion de Rabelais*. Paris: Albin Michel.

Fendler, L. 2014. “The Ethics of Materiality: Some Insights from Non-Representational Theory.” In *Educational Research: Material Culture and Its Representation*, edited by Paul Smeyers and Marc Depaepe, 115-132. Heidelberg: Springer.

Ferguson, H. 2004. *Protecting Children in Time: Child Abuse, Child Protection and the Consequences of Modernity*. Basingstoke: Palgrave Macmillan.

Forest School Association. 2019. “What is Forest School?” https://www.forestschoolassociation.org/what-is-forest-school/. Accessed March 6, 2019.

François, C. 1982. “D’Schoul am Bësch: 70 Jahre Düdelinger Waldschule.” *Télécran* 36: 9-13.

Goodman, J. 2017. “Thinking through Sonorities in Histories of Schooling.” *Bildungsgeschichte: International Journal for the Historiography of Education* 7 (2): 277-288.

Grosvenor, I. 2012. “Back to the Future or towards a Sensory History of Schooling.” *History of Education* 41 (5): 675-687.

Grosvenor, I. and Hall, A. 2012. “Back to School from a Holiday in the Slums!: Images, Words and Inequalities.” *Critical Social Policy* 32 (1): 11-30.

Heirens, N. 1930. *Die Escher Waldschule als Kindertagesheim: Separatabdruck aus der “Luxemburger Zeitung”*. Luxembourg: Schwell.

Howes, D. 1988. “On the Odour of the Soul: Spatial Representation and Olfactory Classification in Eastern Indonesia and Western Melanesia.” *Bijdragen tot de Taal-, Land- en Volkenkunde* 144 (1): 84-113.

Howes, D. 1991a. “Sensorial Anthropology”. In *The Varieties of Sensory Experience*, edited by D. Howes, 167-191. Toronto: University of Toronto Press.

Howes, D. 1991b. “Olfaction and Transition”. In *The Varieties of Sensory Experience*, edited by D. Howes, 128-147. Toronto: University of Toronto Press.

Howes, D. 2002. “Nose-Wise: Olfactory Metaphors in Mind.” In *Olfaction, Taste and Cognition*, eds. C. Rouby, B. Schaal, and A. Holley, 67-80. Cambridge: Cambridge University Press.

Howes, D. 2003. *Sensual Relations: Engaging the Senses in Culture and Social Theory*. Ann Arbor: University of Michigan Press.

Howes, D. 2005. *Empire of the Senses*. Oxford: Berg.

Howes, D. 2006a. “Charting the Sensorial Revolution.” *The Senses and Society* 1 (1): 113-128.

Howes, D. 2006b. “Scent, Sound and Synaesthesia: Intersensoriality and Material Culture Theory.” In *Handbook of Material Culture*, edited by C. Tilley, W. Keane, S. Küchler, M. Rowlands, and P. Spyer, 161-172. London: Sage.

Howes, D. 2009. “Introduction: The Revolving Sensorium.” In *The Sixth Sense Reader*, edited by D. Howes, 1-51. London: Berg.

Howes, D. 2010. “Response to Sarah Pink.” *Social Anthropology/Anthropologie Sociale* 18 (3): 333-340.

Howes, D. 2011a. “Reply to Tim Ingold.” *Social Anthropology/Anthropologie Sociale* 19 (3): 318-322.

Howes, D. 2011b. “Reply to Tim Ingold.” *Social Anthropology/Anthropologie Sociale* 19 (3): 328-331.

Ingold, T. 2000. *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. London: Routledge.

Ingold, T. 2011a. “Worlds of Sense and Sensing the World.” *Social Anthropology/Anthropologie Sociale* 19 (3): 313-317.

Ingold, T. 2011b. “Reply to David Howes.” *Social Anthropology/Anthropologie Sociale* 19 (3): 323-327.

Ingold, T. 2011c. *Being Alive: Essays on Movement, Knowledge and Description*. Oxon: Routledge.

Inglis, D. 2007. “Sewers and Sensibilities: The Bourgeois Faecal Experience in the

Nineteenth-Century City." In *The City and the Senses*, edited by A. Cowan and J. Steward, 105-130. Aldershot: Ashgate.

Jay, M. 1993. "Sartre, Merleau-Ponty, and the Search for a New Ontology of Sight." In *Modernity and the Hegemony of Vision*, edited by D.M. Levin, 143-185. Berkeley: University of California Press.

Jenner, M.S.R. 2011. "Follow Your Nose? Smell, Smelling, and Their Histories." *American Historical Review* 116 (2): 335-351.

Kemp, N. and Pagden, A. 2018. "The Place of Forest School within English Primary Schools: Senior Leader Perspectives." *Education 3-13: International Journal of Primary, Elementary and Early Years Education*. Advance online publication.
doi: 10.1080/03004279.2018.1499791.

Kettler, A. "Making the Synthetic Epic." *The Senses and Society* 10 (1): 5-25.

Koven, S. 2004. *Slumming: Sexual and Social Politics in Victorian London*. Princeton, NJ: Princeton University Press.

Labrie, A. 2001. *Zuiverheid en Decadentie: Over de Grenzen van de Burgerlijke Cultuur in West-Europa 1870-1914*. Amsterdam: Bakker.

Largey, G.P., and Watson, D.R. 1972. "The Sociology of Odors." *American Journal of Sociology* 77 (6): 1021-1034.

Law, L. 2001. "Home Cooking: Filipino Women and Geographies of the Senses in Hong Kong." *Ecumene* 8: 264-283.

Lewis, B. 2017. *'So Clean': Lord Leverhulme, Soap and Civilization*. Manchester: Manchester University Press.

Low, K.E.Y. 2005. "Ruminations on Smell as a Sociocultural Phenomenon." *Current Sociology* 53: 397-417.

Low, K.E.Y. 2006. "Presenting the Self, the Social Body, and the Olfactory: Managing Smells in Everyday Life Experiences." *Sociological Perspectives* 49 (4): 607-631.

Lorang, A. 1995. *Luxemburgs Arbeiterkolonien und billige Wohnungen, 1860-1940*. Luxembourg: Ministère du Logement, 1995.

McCulloch, G. 2011. "Sensing the Realities of English Middle-Class Education: James Bryce and the Schools Inquiry Commission, 1865-1868." *History of Education* 40 (5): 599-613.

MacPhee, M. 1992. “Deodorized Culture: Anthropology of Smell in America.” *Arizona Anthropologist* 8: 89-102.

Mandrou, R. 1976. *Introduction to Modern France, 1500-1640: An Essay in Historical Psychology*. Translated by R. E. Hallmark. New York: Holmes & Meier.

Nugent, J. 2009. “The Human Snout Pigs Priests and Peasants in the Parlor.” *The Senses and Society* 4 (3): 283-301.

Metzemaekers, R. (Ed.). 1979. *Gedenkboek 75 jaar Openluchtschool Diesterweg*. Antwerp: Stedelijk Onderwijs.

Morel, B.A. 1857. *Traité des dégénérences physiques, intellectuelles et morales de l’espèce humaine*. Paris: Baillière.

Nys, L. 2002. “Nationale Plagen: Hygiënisten over het Maatschappelijk Lichaam.” In *De Zieke Natie: Over de Medicalisering van de Samenleving, 1860-1914*, edited by L. Nys, H. de Smaele, J. Tollebeek, and K. Wils, 220-241. Groningen: Historische Uitgeverij.

Ong, W. 1967. *The Presence of the Word*. New Haven, CT: Yale University Press.

Pink, S. 2010. “The Future of Sensory Anthropology/The Anthropology of the Senses.” *Social Anthropology/Anthropologie Sociale* 18 (3): 331-333.

Pink, S. 2011. “Multimodality, Multisensoriality and Ethnographic Knowing: Social Semiotics and the Phenomenology of Perception.” *Qualitative Research* 11 (1): 261-276.

Poiret, N. 1998. “Odeurs impures: Du corps humain à la cité (Grenoble, XVIII^{e}-XIX^{e} siècle).” *Terrain* 31: 89-102.

Porteous, L. 1985. “Smellscape.” *Progress in Human Geography* 9 (3): 356-378.

Priem, K. 2016. “Seeing, Hearing, Reading, Writing, Speaking and Things: on Silences, Senses and Emotions during the “Zero Hour” in Germany.” *Paedagogica Historica* (52) 3: 286-299.

Rheinarz, J. 2014. *Past Scents: Historical Perspectives on Smell*. Urbana: University of Illinois Press.

Saint, A. 2003. “Early Days of the English Open-Air Schools (1907-1930),” In *Open-Air Schools: An Educational and Architectural Venture in Twentieth-Century Europe*, eds. A.-M. Châtelet, D. Lerch, and J.-N. Luc. 56-79. Paris: Éditions Recherches.

Seaton, B. 1995. *The Language of Flowers: A History*. Charlottesville, VA: University Press

of Virginia.

Serneels, H. 1914. *Het 20-jarig bestaan van Diesterweg's Hulpkas, 1894-1914*. Antwerp: Diesterweg.

Śliwa, M. and Riach, K. 2012. "Making Scents of Transition: Smellscapes and the Everyday in 'Old' and 'New' Urban Poland." *Urban Studies* 49 (1): 23-41.

Smith, V. 2007. *Clean: A History of Personal Hygiene and Purity*. Oxford: Oxford University Press.

Smith, M.M. 2005. "Making Scents Make Sense: White Noises, Black Smells, and Desegregation." In*American Behavioral History*, edited by P.N. Stearns, 179-198. New York: New York University Press.

Staar, P. 1936. *Les fenêtres ouvertes: La rédaction française à l'école primaire*. Luxembourg: Beffort.

Stenslund, A. 2016. "A Whiff of Nothing: The Atmospheric Absence of Smell". *The Senses and Society* 10 (3): 341-360.

Sullivan, R.M., Wilson, D.A., Ravel, N., and Moury, A.-M. 2015. "Olfactory Memory Networks: From Emotional Learning to Social Behaviors." In *Frontiers in Behavioural Neuroscience*, edited by R.M. Sullivan, D.A. Wilson, N. Ravel, and A.-M. Moury, 5-8. Lausanne: Frontiers.

Sutton, D. 2010. "Food and the Senses." *Annual Review of Anthropology* 39: 209-223.

Synnott, A. 1991. "A Sociology of Smell." *Canadian Review of Sociology/Revue Canadienne de Sociologie* 28 (4): 437-459.Taussig, M. 1993. *Mimesis and Alterity: A Particular History of the Senses*. London: Routledge.

Terranova, C.N. 2007. "Smell and the City: Miasma as a Code of Crisis in Postwar French Cinema." *The Senses and Society* 2 (2): 137-154.

Thyssen, G. 2007. "Visualizing Discipline of the Body in a German Open-Air School (1923-1939): Retrospection and Introspection." *History of Education* 36 (2): 243-260.

Thyssen, G. 2009. "Between Utopia and Dystopia? Case Studies of Open-Air Schools in Belgium, France, Germany, and Italy (1904-1979)." Doctoral Dissertation, University of Leuven.

Thyssen, G., and Depaepe, M. 2012. "The Sacralization of Childhood in a Secularized World:

Another Paradox in the History of Education? An Exploration of the Problem on the Basis of the Open-Air School Diesterweg in Heide-Kalmthout." In *Between Educationalization and Appropriation: Selected Writings on the History of Modern Educational Systems*, edited by M. Depaepe, 89-117. Leuven: Leuven University Press.

Thyssen, G. 2015. "Engineered Communities? Industry, Open-Air Schools, and Imaginaries of Belonging (c. 1913-1963)." *History of Education & Children's Literature* 10 (2): 297-320.

Thyssen, G. 2018. "Boundlessly Entangled: Non-/Human Performances of Education for Health through Open-Air Schools." *Paedagogica Historica* 54 (5): 659-676.

Thyssen, G., and Herman, F. 2019. "Re-Turning Matters of Body_Mind: Articulations of Ill-/Health and Energy/Fatigue Gathered through Vocational and Health Education." *History of Education* 48 (4): 496-515.

Tomes, N. 1999. *The Gospel of Germs: Men, Women, and the Microbe in American Life*. Cambridge, MA: Harvard University Press.

Tuzin, D. 2006. "Base Notes: Odor, Breath and Moral Contagion in Ilahita." In *The Smell Culture Reader*, edited by J. Drobnik. 59-67. New York: Berg.

Van Beek, W.E.A. 1992. "The Dirty Smith: Smell as a Social Frontier among the Kapsiki/Higi of North Cameroon and North-Eastern Nigeria." *Africa: Journal of the International African Institute* 62 (1): 38-58.

Vigarello, G. 1988. *Concepts of Cleanliness: Changing Attitudes in France since the Middle Ages*. Translated by Jean Birell. Cambridge: Cambridge University Press.

Verstraete, P., and Hoegaerts, J. 2017. "Educational Soundscapes: Tuning in to Sounds and Silences in the History of Education." *Paedagogica Historica* 53 (5): 491-497.

Waskul, D.D., Vannini, P., and Wilson, J. (2009). "The Aroma of Recollection: Olfaction, Nostalgia, and the Shaping of the Sensuous Self." *The Senses and Society* 4 (1): 5-22.

Weber, A. 1982. "70 Jahre Düdelinger Waldschule." *Luxemburger Wort* 135 (161): 8.

Wicky, É. 2016. "History of Smell: What is yet to be Studied?" *The Senses and Society* 11 (3): 363-365.

Wilson, D.A., and Stevenson, R.J. 2006. *Learning to Smell: Olfactory Perception from Neurobiology to Social Behavior*. Baltimore: John Hopkins University Press.

Winter, R. 1976. *The Smell Book: Scents, Sex and Society.* Philadelphia: Lippincott.

Notes

[1] Thyssen 2009.

[2] For seminal work on the senses in psychology and the biosciences, see: Wilson and Stevenson 2006.

[3] Non-representational theory places anything from experience to culture on the same epistemological plane; in variants of such theory, Fendler (2014, 117) notes, "there are no longer signs or symbols that represent concepts or realities".

[4] On (a) slum sense(d) world(s), see: Grosvenor and Hall (2012).

[5] Histories of non-Western, colonial and anti-imperialist education add different scent(ed) layers. See, e.g.: Grosvenor 2012.

[6] Derived from classical Newtonian and quantum physics, and previously used by Donna Harraway as a metaphor to denote "critical difference within", Barad adopts diffraction as a method of "attending to entanglements (…) in ways that help illuminate differences as they emerge: how different differences get made, what gets excluded, and how those exclusions matter" (Barad, 2007, 30).

[7] For Barad, intra-actions are entangled, that is: mutually constitutive, agencies. Intra-acting, therefore, denotes co-constitutive emerging (Ibid., 33).

[8] Morel 1857.

[9] Also elsewhere, for instance in South America, such initiatives emerged (Châtelet 2011; Thyssen 2018).

[10] See: Staar 1936.

[11] Relatedly, Grosvenor (2012) cites, among others, Smith (2005).

[12] Onderwijsvereeniging "Diesterweg", Hulpkas voor Behoeftige Schoolkinderen, *Bestendige Schoolkolonie te Heide-Calmpthout. Schoolsoep-Schoolkoloniën. Verslag over de werkzaamheden 1906,* Antwerpen, 1907: 3.

[13] *Einiges über Wohnungsverhältnisse der ärmeren Arbeiterbevölkerung in Luxemburg zusammengestellt vom Vorstand des Vereines für die Interessen der Frau und hrsg. in Verbindung mit dem Verein für Volks- und Schulhygiene*. Luxembourg: Huss, 1907.

[14] *Einiges über Wohnungsverhältnisse,* 4.

[15] *Einiges über Wohnungsverhältnisse,* 5

[16] *Einiges über Wohnungsverhältnisse,* 10.

[17] *Einiges über Wohnungsverhältnisse*.

[18] *Einiges über Wohnungsverhältnisse,* 11.

[19] *Einiges über Wohnungsverhältnisse,* 12-13.

[20] *Einiges über Wohnungsverhältnisse,* 13.

[21] Ligue Française pour l'Éducation en Plein Air. 1925. *Premier Congrès International des Écoles de Plein Air en la Faculté de Médecine de Paris (24-25-26-27-28 Juin 1922)*. Paris: Maloine, 144.

[22] Diesterweg[']s Hulpkas][1904]. *Feestnummer uitgegeven ter gelegenheid der inhuldiging van Diesterweg's Bestendige Schoolkolonie te Heide-Calmpthout op 17 juli 1904*, p. 2; Ewert, J. and Urbany A. [1914]. *Die Waldschule der Stadt Düdelingen, gegründet 1913 durch die vereinigten Hüttenwerke Arbed, Abteilung Düdelingen: Einrichtung und Organisation im ersten Jahre ihres Bestehens*, Luxembourg, Soupert, 4, 8.

[23] Heirens 1930, 5. See also: Diesterweg[’s Hulpkas], *Feestnummer*, 2; Ewert and Urbany, *Die Waldschule der Stadt Düdelingen*, 4.

[24] Diesterweg[’s Hulpkas], *Feestnummer*, 2.

[25] *Ons Woord* 13 (1), 1906: 6.

[26] Serneels 1914, 5.

[27] François 1982: 10, 11.

[28] Archives Nationales de Luxembourg (ANL), file IP 1438 (Enseignement primaire, Ecoles en plein air, Dudelange - Esch/Alzette, 1913-1933), folder “Ecole en plein air”, “L’école en forêt de la ville de Dudelange. Rapport du Médecin de l’école, Dr. med. A. Urbany, Exercice 1918”, typewritten report, 30 April 1919, 5.

[29] Ewert and Urbany [1914], 14.

[30] See Lewis, B. 2017. *‘So Clean’: Lord Leverhulme, Soap and Civilization*. Manchester: Manchester University Press. Sunlight soap originally was laundry detergent brown in color. In Belgium, Sunlight “family soap” and Lux toilet soap, white multipurpose bars both produced by Lever Brothers, became popular. The photograph may still trigger memories of their distinct perfumes, with hints of citronella and flowers, respectively.

[31] Serneels 1914, 5.

[32] Diesterweg’s Hulpkas voor Behoeftige Schoolkinderen, *Schoolsoep-Schoolkoloniën.Bestendige Schoolkolonie te Heide-Kalmthout, Jaarverslag 1947*. Antwerp: Diesterweg, 1948, 13.

[33] *Ons Woord* 17 (11), 1910: 351.

[34] *Ons Woord* 36 (7-8), 1929: 194.

[35] “Diesterweg”. Hulpkas voor Behoeftige Schoolkinderen, *Schoolsoep-Schoolkoloniën. Bestendige Schoolvilla te Heide-Calmpthout. Jaarverslag 1930*. Antwerp: Diesterweg, 1931: 11.

[36] *Diesterweg’s Hulpkas voor Behoeftige Schoolkinderen* 59 (11), 1952: 2.

[37] *Diesterweg’s Hulpkas voor Behoeftige Schoolkinderen* 56 (10), 1949: 1.

[38] *Diesterweg’s Hulpkas voor Behoeftige Schoolkinderen* 41 (10), 1934: 1.

[39] “Diesterweg”. Hulpkas voor Behoeftige Schoolkinderen. 1931. *Schoolsoep-Schoolkoloniën. Bestendige Schoolkolonie te Heide-Calmpthout. Jaarverslag 1930*. Antwerp: Diesterweg, 11.

[40] “Diesterweg”. Hulpkas voor Behoeftige Schoolkinderen. 1950. *Schoolsoep-Schoolkoloniën. Bestendige Schoolkolonie te Heide-Calmpthout. Jaarverslag 1949*. Antwerp: Diesterweg: 19.

[41] In Dudelange, target groups seem to have included a high number of immigrant children. See, e.g.: Weber 1998, 8; Heirens 1930, 5.

[42] Ewert and Urbany [1914], 4-5, 10, 28.

[43] ANL, file MEN-1652 – Ecoles de plein air [Division de L’Instruction Publique], Organisation et Programme de L’Ecole de plein air de Dudelange. Eté 1964.

[44] Diesterweg’s Hulpkas 58, 1 January 1951: 1-2.

[45] *Ons Woord* 36 (7-8), 1929: 194.

[46] Diesterweg’s Hulpkas voor de Bestendige Schoolkolonie. 1914. *Feestnummer, uitgegeven ter gelegenheid van haar 20 jarig bestaan op 5 juli 1914*. Antwerp: Diesterweg: 3.

[47] *Diesterweg’s Bestendige Schoolkolonie te Heide-Camlpthout. Leerprogramma*. Antwerp: Diesterweg. 1908: 12.

[48] Ibid., 13. Sight and touch were explicitly mentioned in a comparison with the Charlottenburg open-air school, founded also in 1904 as one of the first internationally; not so smell.

[49] *Diesterweg's Bestendige Schoolkolonie te Heide-Camlpthout. Leerprogramma*, 16.

[50] H. Méry "Une école de plein air pendant la guèrre." In *L'école de plein air et l'école au soleil*, edited by P.-F. Armand-Delille and P. Wapler. Paris: Maloine, 1919, 7.

[51] *Diesterweg's Bestendige Schoolkolonie te Heide-Camlpthout. Leerprogramma*, 13.

[52] *Buitenleven* 7 (1), 1938: 7-8.

[53] See, e.g., Diesterweg's Hulpkas voor Behoeftige Schoolkinderen 46 (11)[December] 1939; Ewert and Urbany, *Die Waldschule der Stadt Düdelingen*.

[54] *Ons Woord* 17 (11), 1910: 351; *Het schoolblad voor Vlaanderen: Tijdschrift voor onderwijs en opvoeding* 6 (18): 214; Diesterweg's Hulpkas voor Behoeftige Schoolkinderen 61 (2)[February] 1954: 6; Ewert and Urbany [1914], 17.

[55] *Ons Streven*, June 1914, 1; *Escher Tageblatt*, July 15 1914, 3.

[56] Onderwijsvereeniging "Diesterweg". Hulpkas voor Behoeftige Schoolkinderen, o. c. [1912], p. 22

[57] For instance, Italian immigrant families in Dudelange attached importance to maintaining their own eating customs in Luxembourg: "Migration in Luxembourg," http://www.cecinestpasluxembourg.eu/, accessed September 22, 2011, 52.