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Two Centuries of Stink Smell mapping Widnes past and present

Jade French and Kate McLean

Introduction

Odours have meanings and deep emotional connections for people and, as this chapter explores, when made communicable smells can offer a unique lens into lived experiences of malodorous atmospheres – helping to rebalance existing research whereby the sights and sounds of place often dominate. Smells are also an important component in multi-sensory place marketing, which according to Henshaw et al. (2016) has potential to generate meaningful connections between people and places, especially if local, ambient smells are the focus of attention thus becoming an ‘olfactory brand asset’. Equally, from an experiential marketing perspective, a smellwalk can be a tourist trail indicating the unique characteristics of place to a visiting public. Through our place- based art project case study we suggest how historical smells and the notion of ‘olfactory palimpsest’ – whereby identified smells over time remain similar although their sources alter – contribute to work on atmospheres and place- based marketing research.

Odours and atmospheres

From a built environment and spatial perspective, architect Zumthor regards atmosphere as an aesthetic quality that derives from sensory interrelationships he suggests are ‘perceived through our emotional sensibilities – a form of perception that works incredibly quickly, and which we humans evidently need to help us survive’ (Zumthor, 2006: 13). This is particularly pertinent to human experience of smell in Widnes – our case study – a town in England of houses and factories in which smell – partially used by humans as a warning system to indicate a change in environmental conditions – was a part of everyday working lives in the chemical manufacturing industries of the 1800s.

As one of the pioneering thinkers in the philosophy of atmospheres, Böhme (2019) explains atmosphere has been utilised extensively as a metaphor for over 300 years, the term originating in meteorology as reference to the upper strata of air. The metaphor derives from the effect of specific weather conditions on human moods that inculcate an emotional response. As a meteorological and philosophical condition, atmospheres are both spatial and emotional. Since human experience of olfaction is dependent on olfactory molecules moving through the medium of air, and human responses to smells are emotional, we take smell to be an atmospheric spatial phenomenon. Böhme (2019) continues to suggest that smells’ atmospheric qualities derive from their capacity to be disconnected from the sources. This phenomenological perspective is reinforced in the work of psychiatrist Tellenbach who ventures that smell transcends its chemical properties to ‘evoke a value- laden impression of one’s surroundings’ (Stenslund, 2015: 347). For Tellenbach ‘the primordial phenomenon of atmosphere is the smell of the nest, that is, the smell that tells animals where they are at home and where they may feel secure’ (Böhme, 2021: 2).

Writing in the discipline of marketing, Kotler (1974) also noted the etymology of atmosphere and its power as a metaphor to describe the relationship between people and their environments. In the context of marketing, this human- environment relation morphs into a consumer-retail relationship. Following Kotler (1974), and drawing heavily on environmental psychology, marketing scholars have considered how multiple senses may be managed to create management- friendly outcomes (Bitner, 1992). However, the role of smell has been notably under-researched, especially in spaces outside of retail stores and when humans are acting in ways that do not necessarily fit the ‘consumer’ category (Canniford et al., 2018; Henshaw et al., 2016). Furthermore, the managerial focus of mainstream marketing theory tends to overlook atmospheres that are less- than- desirable, given that these are likely to be less attractive and lucrative.

Whilst the smell of Widnes is frequently regarded as unpleasant, it is still familiar to local inhabitants and denotes home. Familiar smells are markers of a safe environment for many mammals. As Böhme (2019: 260) explains, ‘the smell of the nest is their familiar cover in which they feel at home’. Not only are humans unable to escape odours (they are present in every breath we take), they also have meaning and emotional connections. Hedonic response to smell derives from a combination of direct experience, memories, and associations and are integral to the creation of a mood, an atmosphere in a space. Odours are not only connected with atmospheres, odours are atmospheres. The human geography term, *smellscape*, geolocates an olfactory atmosphere linking it to a specific space and moment in time as witnessed by individuals (Henshaw, 2014; Porteous, 1985) and collectively (McLean, 2019). Smellscapes are experienced directly by a towns’ inhabitants and visitors and they render an emotional human response; this chapter thus regards Widnes’s smellscape as a geolocated olfactory atmosphere that mutates over time. Pallasmaa (2014: 230) further notes how spaces, places, and buildings are encountered as

multi-sensory lived experiences and that we judge their environmental character as a ‘complex multi- sensory fusion of countless factors which are immediately and synthetically grasped as an overall atmosphere, ambience, feeling or mood’. Elsewhere, Pallasmaa (2005: 54) notes how ‘a particular smell makes us unknowingly re- enter a space completely forgotten by the retinal memory; the nostrils awaken a forgotten image, and we are enticed to enter a vivid daydream. The nose makes the eyes remember’. As such, it is possible to conceive that the historical environments of Widnes over time might be imaginatively recreated and remediated through smells themselves. Galleries and museums have also been increasingly engaging with atmospheres and have designed with smells, though this is a relatively recent phenomenon (Classen et al., 1994; Howes, 2014). With a range of curatorial directions, exhibitions dedicated to perfume and fragrance (The Art of Scent, 2012; Perfume: A Sensory Journey through Contemporary Scents, 2015), exhibitions that focus on use of smell to augment visual artworks (IK Prize 2015: Tate Sensorium, 2015; In Search of Lost Smells, 2018; Fleeting: Scents in Colour, 2021), and multi- sensory exhibitions featuring works by contemporary artists and designers (reminiSCENT, 2018; Odor Limits, 2008; Belle Haleine: The Scent of Art, 2015; The Senses: Design Beyond Vision, 2018; What a Nose! Scents and Feelings, 2019; Living with Scents, 2022) are the most common approaches. Prior to these recent exhibitions, independent artists and designers have been working with smell as a medium since poet Benjamin Péret and Surrealist artist Marcel Duchamp roasted coffee beans behind screens in 1938.

Contemporary artists and designers work with both source materials and synthetic odour molecules to replicate and to interpret a range of smells that are subsequently disseminated through exhibition. With ‘Sillage’ – an olfactory public artwork – Goeltzenleuchter interpreted the resident described scent- scapes of Santa Monica neighbourhoods as fragrances. His comment that, ‘the wide disparity between atmospheric smells signalled a relationship between economic privilege and access to fresh air’ (Goeltzenleuchter, 2014) is communicated, as exhibition visitors are sprayed with their own neighbourhood smell and encouraged to sniff those of other exhibit visitors. As such, smells ranging from ‘musty pond water fades into warm air’ and ‘Mexican food mixes with orange blossom- infused air’ are both a conversation- starter and a marker of cultural heritage.

A current Horizon 2020 research project, Odeuropa: Sensory mining and olfactory heritage (2020) shows that smells and smelling are important and viable means for consolidating and promoting Europe’s tangible and intangible cultural heritage. This follows earlier work by Bembibre who suggests that the role of odours in our everyday lives might influence how we engage with history and potentially lead us to regard certain smells as cultural heritage (Bembibre Jacobo, 2020). One of her conclusions suggests the potential for smell to engage new audiences with the spaces and collections held within heritage organisations. The renovated Catalyst Community Gallery was a prime site for such engagement.

Subsequently, olfactory atmospheres have a rich connection to place. As Pallasmaa (2005: 32) suggests:

the strongest memory of a space is often its odor; I cannot remember the appearance of the door to my grandfather’s farm- house from my early childhood, but I do remember ... the scent of home that hit my face as an invisible wall behind the door.

It would therefore seem possible to ask a population to recall the smells of their lives, to glean contextual sensory information and define odour sources and places – the focus of our research.

Project context: Widnes and the museum

The towns in Northern Britain were the location for many of the world’s first chemical factories where chemical manufacturing flourished for over 170 years. Widnes in Cheshire was a key location for this thriving industry that pioneered new base chemicals which were transformed into textile dyes, glass, and soap, materials which have come to define the industrial era. Many elements of a landscape contribute to the generation and dispersal of smell. In 1840, Widnes was a pastoral landscape, smells would have been predominantly from the orchards, livestock in the small rural communities, and the river Mersey (Morris, 2018). However, in 1847 the landscape changed as the first chemical factory was built on Spike Island using the Leblanc process to manufacture alkalis, and by the 1880s the town was producing soap, borax, bleaching powder, and soda ash – all of which released odiferous and toxic by- products. As Shepherd (2017: 47) summarises, by 1880 ‘the foul gases which, belched forth night and day from the many factories, rot the clothes, the teeth, and, in the end, the bodies of the workers, have killed every tree and every blade of grass for miles around’. The housing and pubs built for factory workers near to the factories in the area known as West End also incubated and extruded smells into the streets.

This period in British history is captured within Catalyst Science Discovery Centre and Museum. Founded in 1987, Catalyst is a science discovery centre and independent accredited museum which explores the science and technology of the chemical industry and its impact on society, past and present. Located in Widnes

on the banks of the river Mersey in a former Gossages Soap Factory, Catalyst's aim is to raise public awareness of science through hands- on exhibits, collection displays, education workshops, and community programmes. Its collection consists of archives from giant chemical industry companies of the Northwest, including research archives, historic chemical- related artefacts, workers' records from companies such as ICI, Gossages Soap, and Brunner Mond, as well as thousands of photographs including the post- war Weston Point Photographic Section archive, totalling over 35,000 items.

Catalyst's core audience are children and families, reflected in its 30- year track record of working with schools, an established public education programme and hands- on science exhibits. However, since its 2018 capital redevelopment, Catalyst introduced its first community engagement programme, which sought to expand its current audience and became a focus for the museum's expanded mission. Jade French was employed as their first Community Engagement staff member. When establishing the community engagement programme, Jade undertook community consultation and research during September 2018– March 2019 to map out how the most immediate communities around the museum were engaging with Catalyst. Jade also recorded the issues most important to people and discovered that many locals living in the West Bank area were very interested in environmental issues and pollution prompted by the changing curious smells of West Bank, and more broadly Widnes.

Growing up near the area, Jade was very familiar with Widnes's reputation as a 'smelly' town, often experiencing the shift in smell when crossing the Runcorn/ Widnes Bridge herself. At the same time as these community discussions were taking place, an article was published in *The Guardian*, where author Turton reminisces on his childhood in Widnes, a town hit hard by deprivation and 'neglect', and narrates the living conditions of the town framed by its horrid smell (2019). It occurred to Jade that smell represented more to people from Widnes than just pollution; it connects in complex ways to local history, civic pride, and identity. Jade then proposed to run a project at Catalyst that sought to explore Widnes's smell, both past and present, using both the museum archive and expertise of locals. However, the project also needed the expertise of a specialist who could make something as intangible as smell communicable. Jade subsequently reached out to Kate McLean to design and run a mapping project investigating the past and present of Widnes's smellscape, culminating in an immersive and smellable exhibition: *Two Centuries of Stink: Smell Mapping Widnes Past and Present*. The exhibition aimed to be dialogic, encouraging exploration of the olfactory atmospheres of Widnes through time. Through exploring the design of this exhibition, this chapter links place, smell, and atmospheres as recalled, and as interpreted for shared communication. In doing so, it will explore recalled, physical, and remediated olfactory atmospheres.

Method: Collecting historical and contemporary smells

The aim of the project was twofold; first, to investigate smells connected to a single town over 200 years in which the smellscape, local emotional reactions, and bad press (Turton, 2019) have combined to make it singular. And second, to communicate Widnes West End's current smellscape, as experienced and described by its residents. As such, this practice-based project was conducted in two halves, separated by the global COVID- 19 pandemic; the first half involved creating a list of Widnes's historical smells (and qualifying adjective descriptors) dating from the 1860s to 2020 using oral histories and archival research to ascertain mention of smells and their sources. We called these 'historic smellnotes'. For the second part of the project, McLean used smellwalking methodology with a local population over a UK holiday weekend in 2021 to ascertain a contemporary smellscape (McLean, 2019). The data collected were aggregated to generate a smellmap in which olfactory atmospheres were interpreted visually, to define a set of place- related Widnes smells, and to contribute to a series of interpretive materials for the exhibition.

To collect local historical smells through oral histories, McLean designed a past/ present layered plan of Widnes in 1880 and 2020 to indicate changes in land use (McLean, 2020). Visual palimpsest mapping, in which layers of Widnes's Industrial Revolution infrastructure can be seen on the same document as a present town plan, suggests that the past is visible and acting upon the present. The palimpsest map printed at A0 size on foam- core was used in November 2019 as a pinboard for historical smellnotes at local community groups, Widnes library, Catalyst, and with local writing groups, enabling one inscriber to conserve and build on previous notes and the olfactory memories recalled by others. McLean initiated the process by pinning historical smellnotes (see Figure 5.1) interpreted from Morris's (2018) historical account of the people and events that shaped Widnes to the board and invited local participants to add their smell stories and recollections.

Over a couple of days, further smells were added as gleaned from local library archives and from Catalyst Museum's archive. Newly written historical smellnotes partially obscured earlier versions as a '... palimpsest also introduces the idea of erasure as part of the layering process and provides a way to think about the dynamics of change over time' (Moss and Schreiber, 2006: 9). This was a useful way to appreciate how a smellscape evolves and alters in conjunction with industry, the built environment, and land use. Additionally, the past/ present map

enabled contributors to plot where their historical ‘smell’ was situated with reference to the two periods in the town’s history.

McLean (2019) redesigned the smellnote for the historical research to encourage the participants to think of a single smell at a time. Important to the project was to discover which smells dominated at different periods, necessitating the inclusion of 20- year time periods. Fields for smell duration, hedonic tone, and contextual congruency were omitted, whereas smell description was accentuated along with ‘interesting info about the smell’ to aid contextualisation and granularity.

To determine Widnes’s current smells, McLean led a series of eight in situ public smellwalks (McLean, 2019) around the West End peninsula on which Catalyst Museum is situated, using the museum as the starting point for the walks. Whilst planned for April 2020, they were postponed to late May 2021 due to the COVID- 19 pandemic. Participants were enlisted by Catalyst for walks in the following locations: Spike Island (long and short routes) and West Bank (coastal path, north, south, south-east, south- west, and west). It should be noted that the smellwalks, conducted over a period of four days on a warm holiday weekend, were atypical in that local businesses and industries were closed. This was evident through omission of notably the oft- mentioned – in conversation and in media – Granox bone rendering factory (Brown, 2018) which was not emitting its usual pungent odours, and instead the air proffered smells of the natural environment, food, and people.

In total, 38 members of the public completed the smellwalks and subsequent smell visualisation exercise, which was designed to encourage development of individual smell narratives and also to ensure participants could see their contribution to the project in the exhibition itself. The approach and attention to the minutiae of everyday existence is reminiscent of non- representational marketing theory, which as Hill et al. (2014: 378) explain is deployed by researchers to investigate the ‘affective and atmospheric intensities that play a part in the assemblage of markets and consumer cultures’. Our innovative way of presenting and communicating atmospheres through a multi- sensory exhibition is consequently an approach that marketing practice and research might learn from.

The data collected: Smell detections and descriptions

In total, 462 smells were noted: 46 from historical sources and texts, 24 from oral histories, and 392 from smellwalks. These were thematically categorised and coded to suggest which smells were most important to the project (see Table 5.1). Chemicals, toxic odours, ammonia, and sulphuric smells were the most commonly noted from historical references – this is unsurprising given the texts were on the subject of the chemical industry in Widnes. The oral histories referred to the industrial nature of smells, whereas the biggest category during the smellwalks was grass and greenery, which on a fair weather Bank Holiday weekend was to be expected.

Initial thematic analysis revealed 25 categories, subsequently reduced to eight focussing on smells that were either dominant or common across the 200- year period, for subsequent dissemination in the exhibition: grass/ greenery/ leaves, salty muddy water, vinegar, cooking cabbage, chlorine, smog/ coal smoke, soap, and ammonia. The sources of these smells may have altered through the years, but the smells remained notable. Since an urban smellscape model includes a combination of background, episodic, and short- lived smells (McLean, 2019: 35) it was important to ensure inclusion.

Background smells

Salty muddy water remains a constant throughout Widnes’s olfactory history as a background, ‘macro- level smellscape’ (Henshaw, 2014: 172). Emanating from the tidal river Mersey, the muddy estuary and riverbanks of marshes, this smell from the natural environment is a permanent reminder of the geographic location of the town in relation to the river. Smellwalkers on the coastal route most often mentioned this smell, one commenting, “Reminds me of seaside – holiday smell”. This supports the idea that our experiences of present atmospheres are shaped by our past memories and simultaneously, memories are reshaped through reliving and the accompanying storytelling (Steadman et al., 2021), encouraged in this method through the narrative component of the smellwalk.

Table 5.1 Smell categories and frequency of mention

<i>Smell category</i>	<i>Historical</i>	<i>Oral histories</i>	<i>Smellwalks</i>	<i>ALL</i>
Excrement/ ammonia	5	3	7	15
Smog/ burnt coal/ burning	2	0	10	12
Tar/ asphalt/ road/ car	0	0	19	19

Chemical – e.g. chlorine	7	2	4	13
Alkali works/ sulphur	3	4	0	7
Synthetic – rubber/ oil/ acetone/ plastic	1	0	23	24
Industrial food	3	6	1	10
Acetic acid	3	2	2	7
Toxic – unspecified	8	5	0	13
General smell reference	3	0	0	3
Other/ uncategorised	3	0	34	37
Place	1	1	2	4
Soap/ sanitiser	1	0	12	13
Wood – building materials	0	0	14	14
Salt/ water/ mud/ sand	0	0	38	38
Cooking/ cabbage/ food/ drink	6	0	17	23
Grass/ leaves/ greenery/ floral	0	1	142	143
Flowers/ floral	0	0	0	0
Complex	0	0	6	6
Tobacco	0	0	6	6
Rust/ metallic	0	0	14	14
Perfume	0	0	14	14
Non– human animals	0	0	10	10
Clean air	0	0	8	8
Bin	0	0	9	9
TOTAL RECORDS	46	24	392	462

The grass/ leaves category was most mentioned during the Spike Island smellwalks, now a country park but once the site of Hutchinson’s first chemical factory built in 1848, then the site for Gossages soap factory (Waymarking, 2016). Prior to the chemical industry Widnes’s West Bank ‘once attracted day trippers ... the river at this spot was a paradise for local fishermen and along its banks flora and fauna found a natural habitat in wide, open spaces’ (Morris, 2018: 42). Several mentions of this type occurred during the smellwalks with positive comments such as: “Countryside”, “Takes me back to my childhood – shelling peas!”, “Pollen, sweetness”, and “Fresh, welcome”. Smells of nature are therefore resuming their prevalence in this enclave of the town. Given smell memories are greater than primeval individual responses, the findings earlier indicate how much they are a sociocultural phenomenon, shaped by history and politics. Equally interesting to note in this particular context is the interplay of industrial and natural, which according to research by Canniford and Shankar (2013) are conventionally opposed but often entangled in consumer practices.

Episodic smells

Episodic smells vary; they are time- bound and intermittent (Porteous, 1985) and their presence, and absence, is largely dependent on the weather (also see Woodward and Swartjes, this collection, for more on natural elements and atmosphere). Wind direction and speed, temperature, and humidity all affect how smells volatilise and disperse. Episodic smells are largely man-made and emanate from local industry, factories, workshops, traffic

and transport, caf  s, restaurants, and shops (Henshaw, 2014: 171). The black smog that was once Widnes’s residual atmosphere comprised ‘copious quantities of sulphur dioxide and hydrogen sulphide added to the black smoke from burning coal to produce a cocktail of pollutants that gave Widnes (and some other towns) its characteristic unpleasant smell and pall of black smoke’ (Trip Advisor, 2016). This episodic smell dominated the smellscape from 1848 to 1930. The smog was also mentioned in Smellnote 31, which read: “1960– 1980, Ditton Road, Chemical waste tips & McKentnies – used to travel to West Bank school from Ditton by bus past the chemical tips. Smogs frequently”.

Furthermore, the smell of vinegar, initially mentioned in relation to the Golden Wonder factory (The Crispy) (Jordan, 2018), was a site mentioned in the 1960– 1980 time period in relation to Cronton, Ditton, and Ditchfield Road: “First salt and vinegar crisps. Made your eyes water”, “Stuck to clothes”. It also featured on a purple flower on a Spike Island smellwalk, and there was informal conversation about its presence in the chip shops despite them being closed during the smellwalks.

Chlorine was an evil stench in the bleach packers’ work (Morris, 2018: 51), whereby ‘... men had to enter the Weldon chambers, which had been filled with chlorine for days, and shove out the powder while it was still intermixed with the gas’ (Barker and Harris, 1994). Chlorine was also mentioned in a historical (undated) Smellnote SM17 describing Halton View Road:

The weird almost like an excess of chlorine that hangs in the air. I remember walking back from town and the further over Halton view Bridge I got, the more my throat ached and my eyes stung, and yet people walking past seemed wholly oblivious!

Chlorine was again mentioned in the 1940–1960 period along with disinfectant. Whilst ammonia was present in the 1880s outhouses and night soil mounds (Morris, 2018: 256) and it resurfaced, quite literally on a local golf course in the 1980– 2000 period as noted on Smellnote SN10: “Ammonia. We used to try and retrieve golf balls from the ditch running through the 18th hole. The water was bright glowing blue and green!”. It appeared again by the boathouse during a Spike Island smellwalk and once again as an olfactory signifier in ICI’s Paraquat works.

Finally, given the original use of the Catalyst Museum building as Gossage’s soap works, we decided to include soap as one of the featured smells. It also appeared on Moorfield Road in the 2000–2020 period attributed as “Possibly from Lapouted / Crossfields (Crosshatch – Kandor Clothing Company)” and as “Carbolic Soap” on Mersey Road in 1940– 1960.

Short- lived smells

Henshaw’s (2014: 172) urban smellscape theory suggests how odours can be categorised according to their longevity and similarly atmospheres are impermanent and dynamic; as Anderson (2009: 79) elucidates, ‘atmospheres are perpetually forming and deforming, appearing and disappearing’. Cabbage is one such short-lived smell contributing to a place’s ephemeral atmosphere, not specifically associated with a repeat event, but smell alluded to in the everyday lives of the industrial revolution, relating to Morris’s (2018: 228) description of the West bank terraces where ‘distinct noises and smells of the neighbourhood confronted the residents’. Cabbage recurs in the 1920–1940 period on Mersey Road and again in the 1960– 1980 period on the Jubilee bridge as “Obnoxious gas smell. Rotten cabbage” with a final mention on the smellwalks on Spike Island.

Communicating the data : Design and curation of the exhibition

A core aspect of Catalyst’s physical redesign as part of the Wellcome Trust Inspiring Science Fund project was its main reception area. Along with completely overhauling the museum’s caf  , shop, and reception area, space was created for a new community gallery space to support its new community engagement activity. This area intended to platform the interests, projects, and voices of local people and, crucially, would be free to visit unlike the main gallery spaces. Reflecting the new hands- on science gallery, the community exhibition space also used a peg board to display work, rather than a traditional white- cube gallery aesthetic. The inaugural exhibition in the space (*Two Centuries of Stink*, 2021) was co-designed to produce an atmosphere, which according to B  hme (2019) may be partially achieved with the use of olfactory ingredients. Accordingly, text panels for the exhibition were written by Jade French, whereas graphic design including identity, panel design, and layout was designed by Kate McLean. Catalyst Museum staff also assisted with the creation of smell boxes and shelving into which aroma blocks containing library smells from AromaPrime were placed.

Since storytelling was key to both researching the project and dissemination of the project’s findings to create a shared perspective and make meaning out of past events, we deployed a narrative approach for the exhibition design. We generated a combination of texts, visuals, reconstructed smells, and olfactory symbolisation in the form of an animated smellmap adopting a dynamic ‘narrative arc’ with peaks of intensity and rest with the

intent to generate a sequential logic and a ‘satisfying sense of completion’ (Lupton, 2017: 24). Following a banner with an exhibition logo designed by McLean to allude to the industrial revolution chimneys of Widnes, visitors encountered an introductory text panel (see Figure 5.2).

Pegboards

Smellwalk participant artworks were included in the pegboards section of the museum; their visual interpretations of smells encountered following the May 2021 smellwalks were scanned and collated with photographs taken during each smellwalk (see Figure 5.3). The largest peg board summarised the findings of the project with interpretation panels and was smellable, considering Böhme (2019: 262) suggests ‘... smell is distinguished as being immediately effective: smelling something means being close to it. The source of the smell may be at a distance, but the smell itself is immediately smelt right here’. Moreover, taking smell source ‘distance’ as both spatial and temporal, we recreated an olfactory palimpsest of smells alluding to their historical and contemporary sources. Similar to Goeltzenleuchter (2014), our aim was to stimulate discussion about the evolving nature of the town’s smellscape and to lead onto a subsequent panel asking which Widnes smell should be archived for the future. Each smell was explained through a coloured panel featuring a quote from the research and accompanying visuals from the Catalyst archives and smellwalks. We chose smells from AromaPrime’s library collection and housed them in white acrylic boxes, with a grid of drilled holes to facilitate smelling without touching. The exhibition was designed deliberately to not include the names of the smells on the odour boxes; however, to facilitate understanding, the boxes were colour-coded with labels to correspond with explanatory panels.



Figure 5.2 Explanatory panel design for Catalyst, Widnes.

Source: Kate McLean.

Odourgraphic and animation

To better communicate the smells' origins, and with data emanating from a range of sources, visual coherence was crucial. McLean therefore also translated the data into a smell map (see Figure 5.4) using a morphed, interweaving isoline symbol as developed in *Smellmap: Edinburgh* (McLean, 2011) to denote the range of each smell. The interweaving lines allude to the importance of winds in the dispersion of the smells and the likelihood of swiftly moving odour molecules crossing over each other in the eddies of the wind. This 'odourgraphic' map comprises six layers of smell visuals from each 20- year historical period (Table 5.2) and a further 16 layers of smells noted during the smellwalks (Table 5.3). To depict the changing olfactory atmosphere over 200 years, the odourgraphic was subsequently created as an animated map shown on a flat screen with benches provided (*Two Centuries of Stink.mp4*, 2021), with the smellwalk dataset appearing street-by- street as if walking through Widnes West Bank neighbourhood. Lasting 7 minutes and 36 seconds it offered visitors a chance to see the evolving smellscape and atmospheres (Anderson, 2009) and to connect them with a changing infrastructure of roads, railways, and bridges.



Figure 5.3 Pegboards 01 and 02 delineating project findings including smellwalk visuals and sniffable smells in white acrylic boxes. Source: Authors.

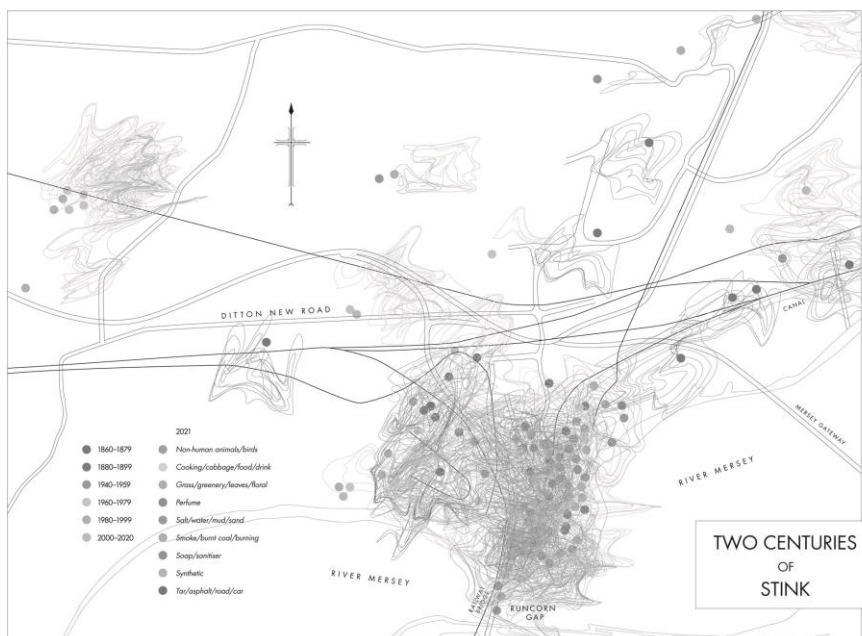


Figure 5.4 'Two Centuries of Stink' smellmap, bespoke artwork ©Kate McLean. Source: Kate McLean; Sensory Maps, 2020.

Table 5.2 Time periods and colours used in the odourgraphic

***Historical
smells***

<i>Time period</i>	<i>Odourgraphic colour</i>	<i>Smell descriptions</i>
1860– 1879	Dark red	Beer Hydrochloric acid Foul gases Muriatic acid gas Opening the front door Corpse Cocoa Beer, warmth, company Smells of residents
1880– 1899	Dark grey	Alkali production waste Galligu Night soil Stinking Widnes
1940– 1959	Orange	Bad egg smell Chemicals and body odour Fisons Foul smell from the river Garlic waste site – arsenic Horrible Carbolic soap
1960– 1979	Pale flesh	Acidity/ sulphur Acrid, dense, pungent Cabbage smell Crisps from the Golden Wonder factory First salt and vinegar crisps Granox Obnoxious gas smell Oily smell Strong urine The boneyard
1980– 1999	Pale grey	Ammonia Awful Cats vomit/ piss

(Continued)

Table 5.2 (Continued)

***Historical
smells***

<i>Time period</i>	<i>Odourgraphic colour</i>	<i>Smell descriptions</i>
2000– 2020	Blue	Cocaine
		Crisps from the factory
		Edderbridge plant fat rendering
		Golden Wonder factory cooking
		potato
		Granox
		Granox/ slaughter
		Lemon Meringue Pie
		Shite
		Toxic
		Various R & D chemicals
		Weetabix, cornflakes, hot milk
		Acrid plastics fire
		Choked in a swimming baths
		Dog food
		Eggs
		Foxes (poo) smell
		Like a chemical sewer plant
		Rich horrible odour
		Rotten meat smell
		Thick, soupy, sulphuric fog
		Weetabix, cornflakes, hot milk

Future archive: Smell of Widnes

On the opening day, visitors included participants from the smell walks, members of the Catalyst board, former workers of the chemical industries, and a cross section of a local population. We noted that some people preferred to sniff first before seeking the interpretation panel, and some participants clearly identified certain odours prior to reading; interestingly, chlorine was identified in this way, as well as boiled Cabbage and the river smells. A QR code linked visitors with an online questionnaire asking them to name a smell from Widnes that is important to archive in the future, after the chance to experience a curated set of historical odours with a heightened awareness of smell. A total of 23 participants responded with the majority voting for ‘grass’ and a reason given for this choice was that grass is an indicator of oxygen which signifies the capacity for growth.

Conclusion

The dual ‘past/ present’ approach broadened the scope of smellscape mapping as it enabled not only the smells encountered on a single smellwalk over a period of an hour to form the smellmap but also enabled participants’ memories and previous lived experience from their home lives and working environment to come to the fore. During the data collection we were astonished by the specialist knowledge of chemicals used in the varying chemical industries of Widnes. Many conversations were akin to chemistry lessons recounted by the local population through imagined and recalled smells of their working lives. Through such narration, both personal and local pride were palpable. For a moment, local industry – however toxic and unsavoury it may currently be viewed – became important and celebrated as an interpretation of historical and lived experience.

We have shown how olfactory atmospheres may be collected through oral histories and historical smellnotes and provided a template for curation and exhibition design of an olfactory project. Underpinning the entire process is Porteous’s (1985: 91) theory of the smellscape as ‘episodic in time and fragmentary in space’; indeed, human olfactory experience is time-bound and intermittent. Whilst exhibitions and oral histories are regular contributions and outcomes in the fields of exhibition and design, they are innovative as non-representational forms of data collection and dissemination in the field of marketing. As part of the Arts Council-funding, this project was under- pinned by a commitment to the local community and democratising smell

vocabularies, to celebrate a malodorous neighbourhood and simultaneously contribute to a local confidence to speak about recurring odour nuisance in the town. Marketing could learn much from working in such ways, taking heed that researching and communicating with olfactory compounds requires transparency as to the final goal. Henshaw (2014: 163) notes how commercial scenting practices are regarded as both acceptable and beneficial to society and manipulative and dishonest depending on their context. And thus, we need to consider the ethical complexities of such situations. Odourgraphics and smellscape mapping have the capacity to communicate qualitative datasets and represent multiple atmospheres over extended periods of time. Olfactory stimuli can be used deliberately to invoke a response and thus hook the imagination of visitors inviting actions and reactions, reminiscences, and a vocabulary for explaining local history.

Finally, we draw attention to the concept of ‘olfactory palimpsest’, the idea that smells recur in locales which might be attributed to different sources and processes over time. This is useful as a framework for communicating smell as an aspect of cultural heritage, understanding that whilst the chemistry of single smell molecules is constant, the emotional and contextual information differs. Olfactory palimpsest might be useful to future practitioners in marketing interested to temporally connect products with places and to record olfactory changes over time. Reproduced smells might add nuance and invite more granular attention to the notion of atmospheres. Research on atmospheres could thus explore how olfactory layers over time contribute to understanding of atmosphere as a shifting quality of place. It may be, Böhme opines (2019: 264) that the Western devaluation of the olfactory has led to a capacity to be overwhelmed and as a result ‘... the lack of distance within the experience of smelling can lead to totally getting lost in it, so that the atmosphere of smelling may become the world in which we are’. Through exhibitions that include smell and scent recreation, historical odours, both pleasant and foul, toxic and restorative, may thus become new moments of empathic lived experience for participants.

Table 5.3 Contemporary smell categories included in the odourgraphic

Contemporary smells				
Category	Colour	West bank, Widnes location	Smell categories	
1 Non-human animals	Dusky pink	Terrace Road	, 6, 7,	
2 Cooking/food/drink	Pale green	By River	, 4, 5, 8,	
3 Grass/greenery/leaves/floral	Mid green	Irwell Street	3 9	
4 Perfume	Bright pink	St Mary's Road	3 9	
5 Salt/water/mud/sand	Teal blue	Parsonage Road	, 5, 6,	
6 Smoke/burnt coal/burning	Brown-grey	Hurst Street	, 5, 8, 9	
7 Soap/sanitiser	Purple	Oakland Street	3 3 9	
8 Synthetic	Turquoise	Wright Crescent	, 8,	
9 Tar/asphalt/road/car	Dark blue-grey	Mersey Road	3 3	
		Chidlow Close	, 3, 4, 6, 7, 8,	
		Lower Church Street	, 3, 9	
		West Bank Street	2', 4, 7 9	
		Dock Street	2 3 2'	
		Spike Island	, 3, 4, 5, 6,	
		Boat Club	, 2, 3, 4, 5, 6, 8,	
		Catalyst	, 4, 6, 7, 8,	
			2	
			1 3	

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