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NOSE FIRST

14:00 – 14:15

Warmup: Smell print – a 15-minute warm-up activity

14:15 – 15:15

Nose-first: Practices of Smellwalking and Smellscape Mapping – a 60-minute talk

15:15 – 15:30

Comfort break

15:30 – 16:30

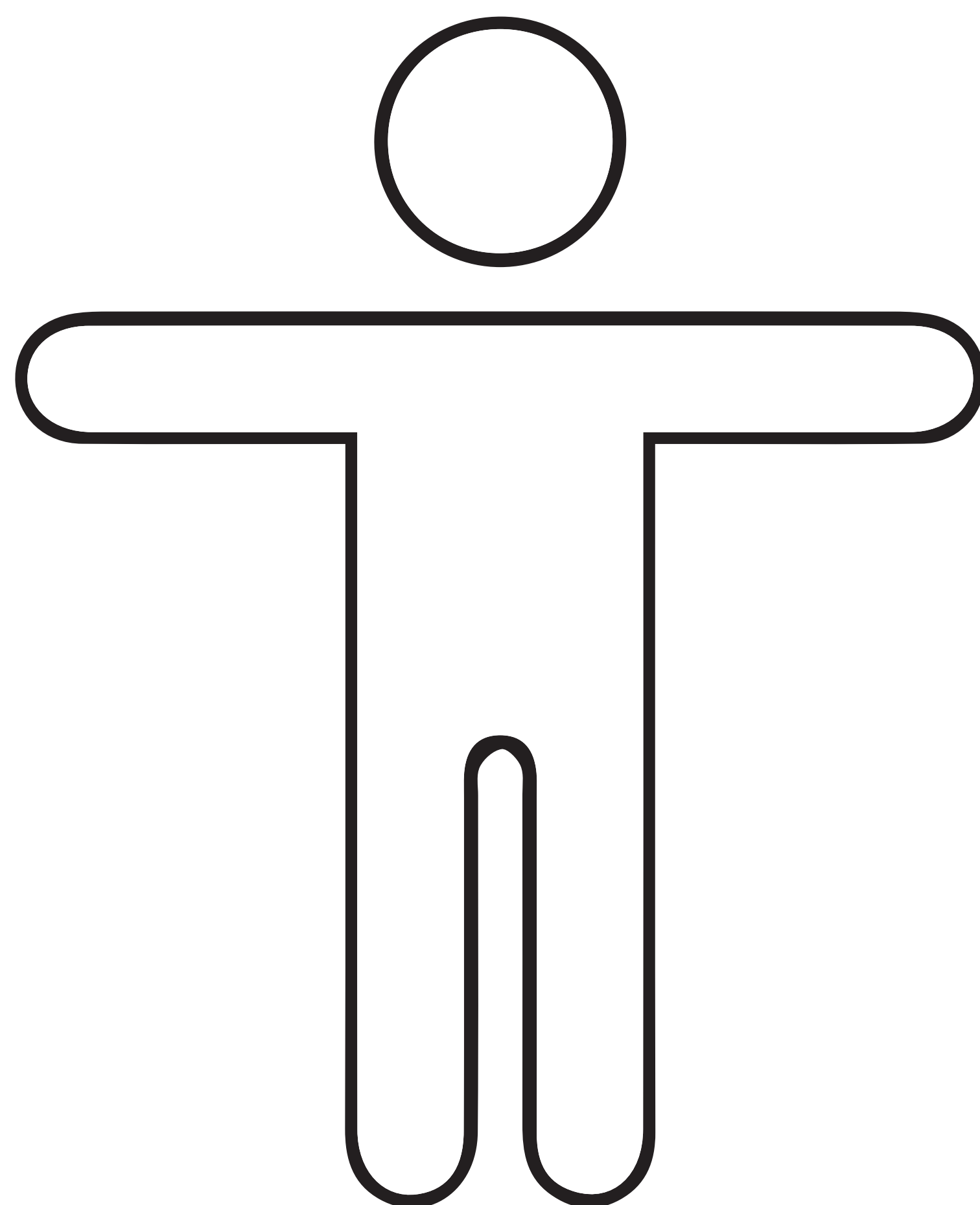
Smellwalk: 60-minute guided smellwalk

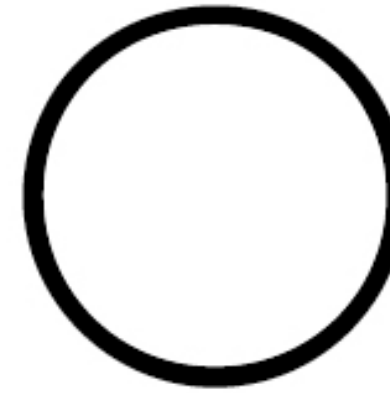
16:30 – 17:30

Visualisation and mapping: interpreting smell experiences through shape and colour in space

17:30 – 17:45

Sharing and discussion





NOSE FIRST

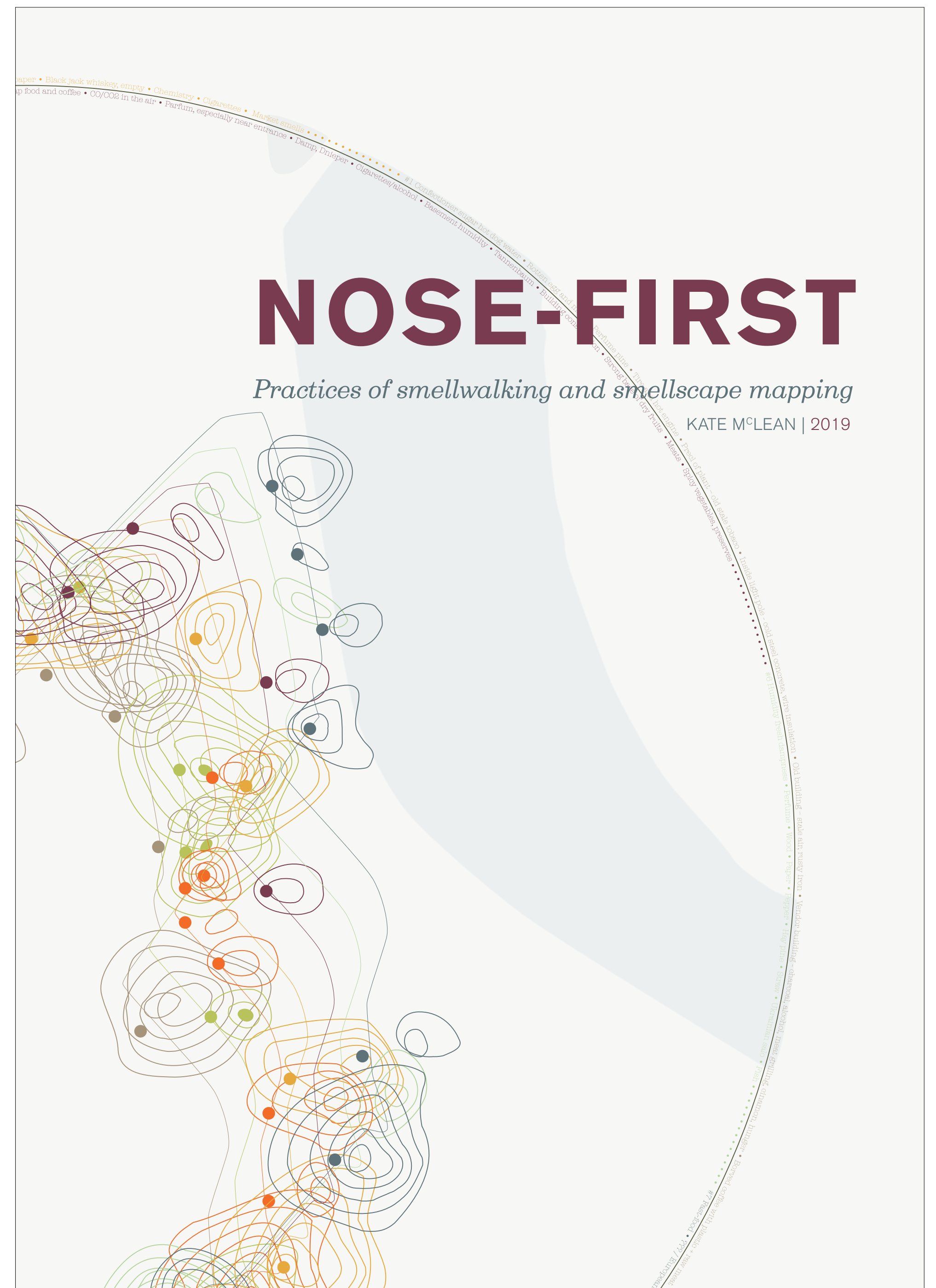
NOSE FIRST

Practices of Smellwalking and
Smellscape Mapping

DR KATE MCLEAN | 2022

<https://twitter.com/katemclean> | sensorymaps.com

**Interdisciplinary, practice-based,
communication design research
into how we might best share
human smell experiences**



**60-minute talk investigating
olfactory environments and
potential approaches to
communicating our experience
of them. Focus on the spatial.**

Discover.

Discriminate.

Describe.

Depict.

Literature and practice review / overview

/sanitary survey (1790) – Paris



PROCES - VERBAL

De la Visite faite le long des deux rives de la rivière de Seine, depuis le Pont-neuf jus qu'à la Rapée et la Garre, le 14 février 1790.

PAR M. HALLÉ.

Le dimanche, 14 février, la hauteur de la rivière étant à 5 pieds, (échelle du Pont de la Tournelle), nous avons commencé notre course, M. Boncerf et moi, par visiter les terrains qui sont au dessus du quai de la Feraille.

Ayant regardé par dessus le quai vers le Pont-Neuf, nous avons été saisis d'une odeur très-forte et nous sommes descendus.

Au dessous de la première partie de ce quai, attenant le Pont-Neuf, nous avons trouvé un grand atterrissement couvert d'immondices. Il commence au bas de la descente de l'Arche-Marion, et finit à la première arche du pont de ce côté. Cet atterrissement s'avance de 3 ou 4 toises environ dans la rivière.

Nous sommes descendus sous le même quai, vers le bout qui atteint le Pont aux Changes; à ce bout commence un grand atterrissement qui se continue, avec quelques interruptions, sous la première arche du Pont aux Changes, sous tout le quai de Gèvres et jusqu'au dessous du quai Pelletier.

La partie de cet atterrissement qui est à la fin du quai de la Feraille, ayant le Pont aux Changes, s'élève par un

HIST. DE LA SOCIÉTÉ DE MÉDECINE. Ixxxvij

grand amas d'ordures et forme un tertre sur lequel s'appuie une gouttière qui répond à l'égoût du grand Châtelet. La terre en est noire et de mauvaise odeur. L'atterrissement continue sous la première arche du Pont aux Changes et l'occupe toute entière; là il n'est pas encore fort infect. Mais sous les voûtes du quai de Gèvres, il est couvert d'immondices de toutes espèces, soit provenant des latrines des maisons du quai, soit des issues des boucheries et tueries, qui s'étendent entre le grand Châtelet, et la rue Planche-Mibray; vers le quai Pelletier l'amoncellement des ordures est moins infect et l'atterrissement est de moins en moins gâté jusqu'à la Grève.

La Grève, le Port-au-blé jusqu'au-Pont-Marie, et tout le port Saint-Paul, n'offrent que peu d'atterrissements de mauvais caractère, et, sauf quelques anciennes matières, n'ont besoin d'aucun nettoyage.

Vers l'Arsenal le bras de l'île Louvier est bordé de terres végétales d'une bonne qualité, et l'égoût même de la rue du petit-Musc est propre et lavé par une eau qui ne paroît point sensiblement chargée d'immondices.

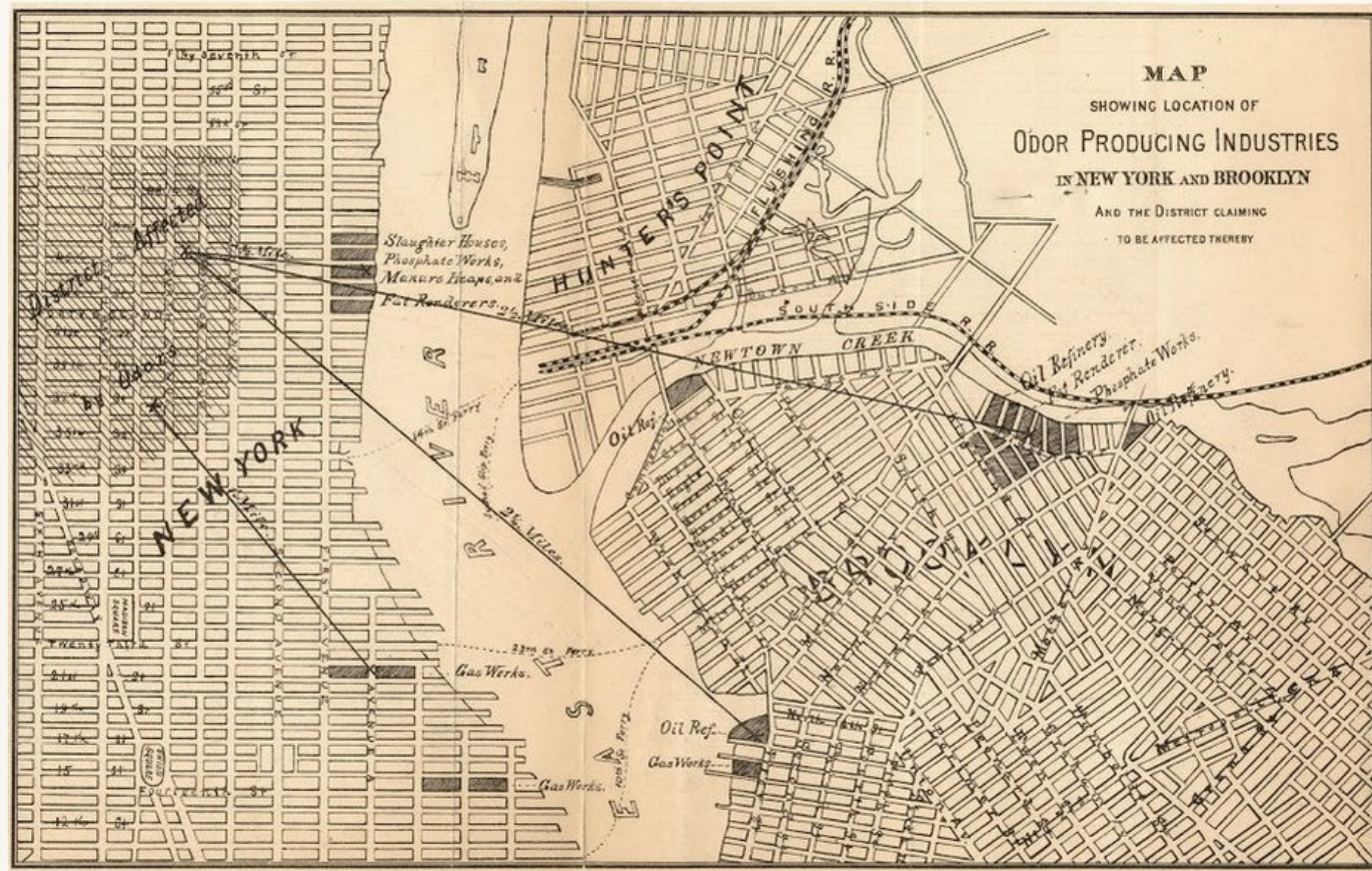
Tout ce côté est en très-bon état tant du côté de l'Arsenal, que du côté de l'île Louvier, jusqu'à l'embouchure de l'égoût des fossés de l'Arsenal. On sçait que la terre qui borde cet égoût, doit être profondément pénétrée par les matières qui y abondent; mais à l'extérieur elle n'offre aucun signe qui la rende suspecte. On ne doit la remuer qu'avec précaution. Au contraire dans les terrains que nous avons désignés jusqu'ici, il est probable que l'infection existe plus à la surface que profondément, et que, le déblai fait des premières matières, le reste s'enlèverait sans inconvénient.

Passé l'égoût de l'Arsenal on trouve le port du débarcadage, cet endroit est formé d'un terrain mol, profond, grisâtre à la surface, noir quand on le creuse, et répandant alors une mauvaise odeur. Il est formé de débris de matières animales et végétales, et cet état du rivage,

J.-N. Hallé, "Procès-verbal de la visite faite le long des deux rives de la rivière Seine, depuis le pont-Neuf jusqu'à la Rappée et la Garre, le 14 février 1790,"

Histoire et Mémoires de la Société Royale de Médecine, 10 (1789). BIU Santé website

/odour monitoring (1870) – New York



Map Showing Odor Producing Industries in New York and Brooklyn and the Districts Claiming to be Affected Thereby (1870). Manhattan Board of Health

THE WHIFF OF UNCERTAINTY

Effects of Weather Conditions on Urban Locative-Dependent Threshold Olfactory Detection of Baking Doughnuts

Table 1: Daily Breakdown of Odor Canopy, Temperature, Dewpoint, Wind Speed, Date, Time, and Weather Quality

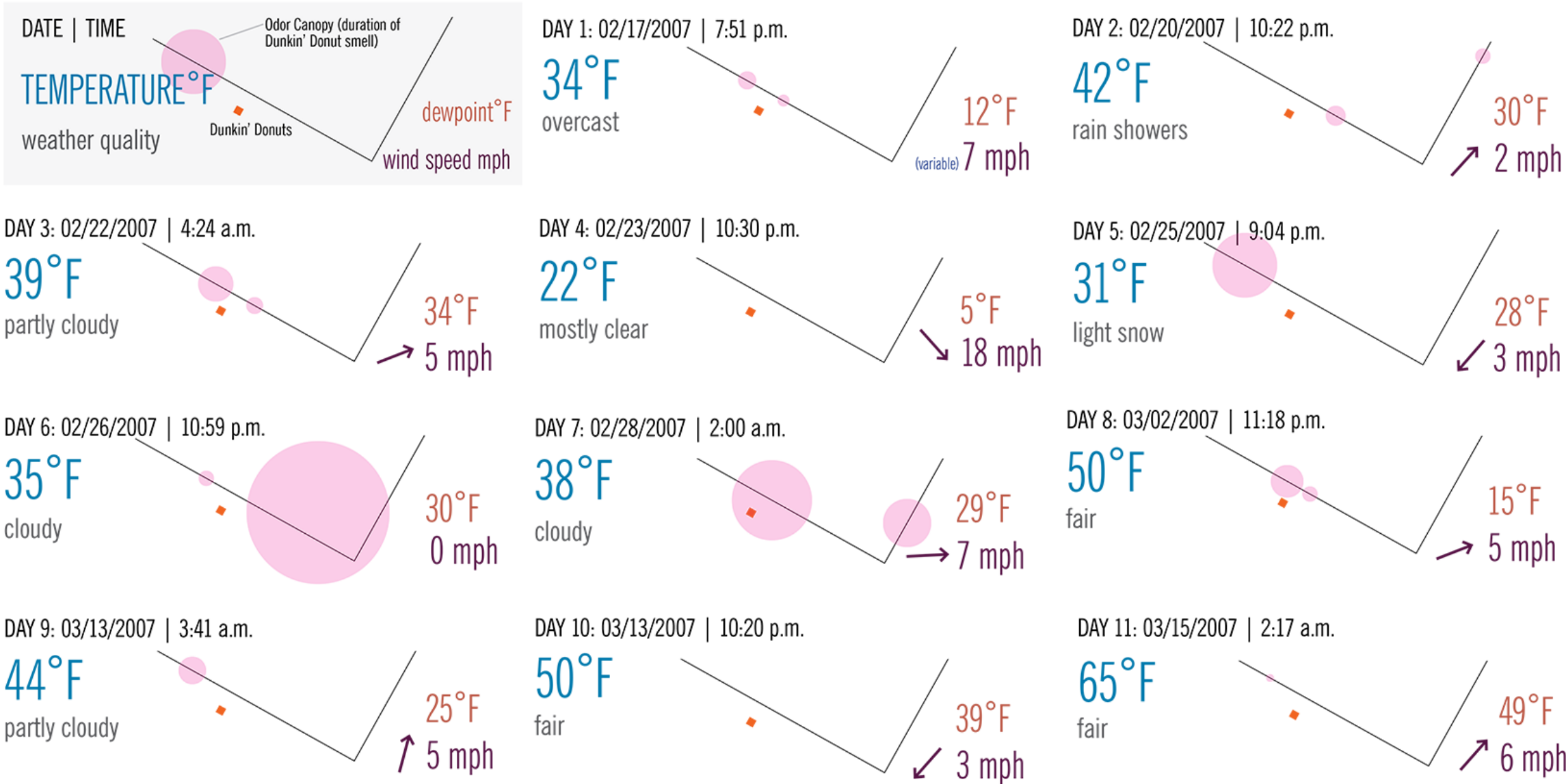


Figure 1: Extrapolated Odor Canopy



Figure 2: Distance from Dunkin' Donuts vs. Temperature

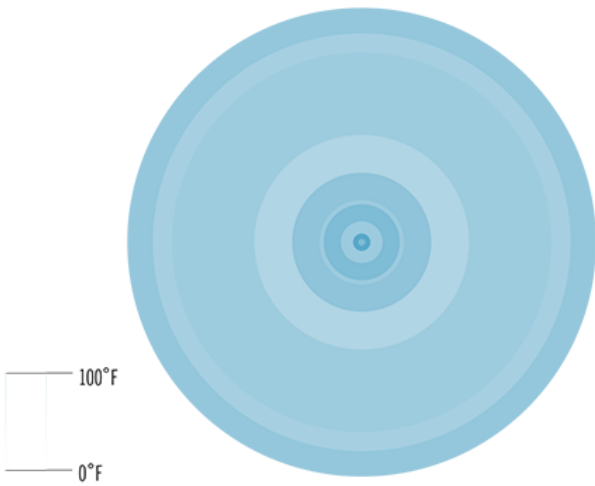


Figure 3: Distance from Dunkin' Donuts vs. Dew Point

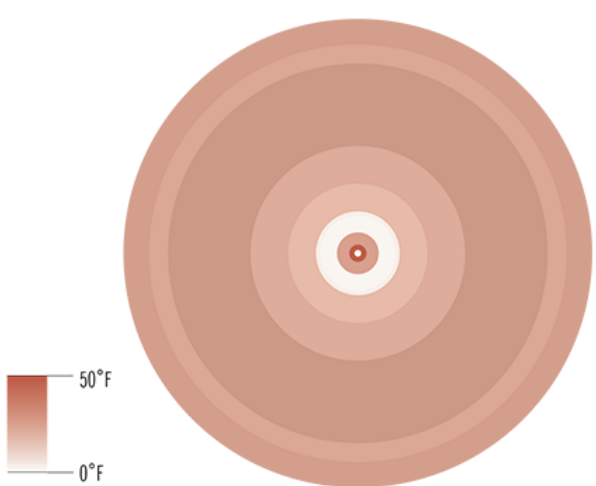


Figure 4: Distance from Dunkin' Donuts vs. Wind Speed

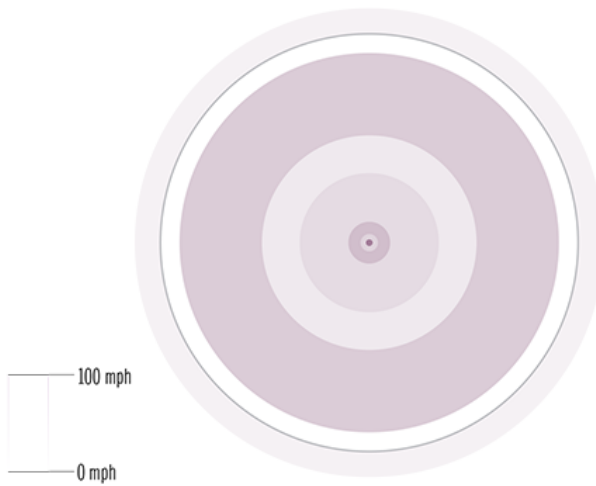
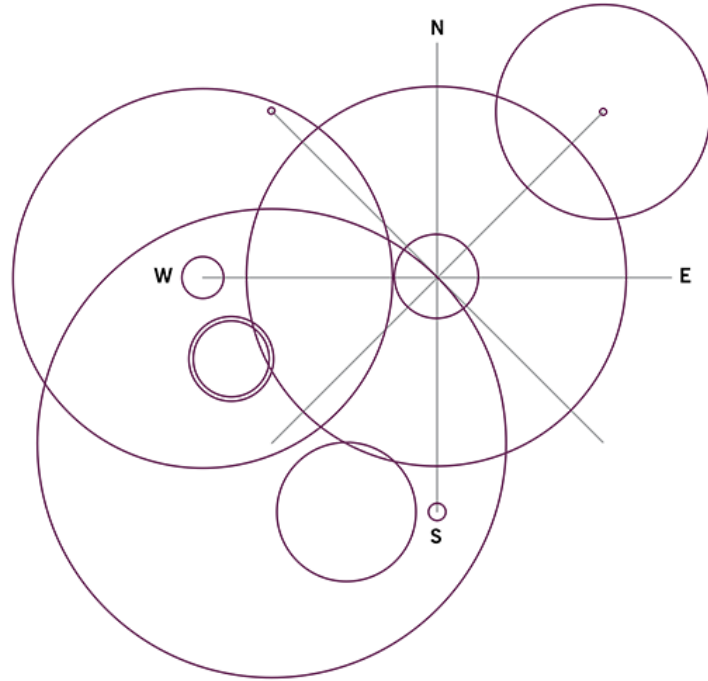


Figure 5: Distance of Odor Onset from Dunkin' Donuts vs. Wind Direction



Introduction: The path from the SVA MFA Design studio building (located at 380 2nd Avenue) to the Union Square subway station bypasses a Dunkin' Donuts franchise (located at 218 E. 14th Street). For 11 days, at different times and varying weather conditions, that same path was taken. At the moment when the smell of baking doughnuts was first detected, the time, location, and duration of the smell was recorded. Olfactory smell detection is affected by factors such as temperature, air moisture, wind, wind speed, and proximity to source of smell (Powers, 2004). The weather conditions were compared with the onset of doughnut smell to determine if a correlation exists. Factors such as number and state of nasal smell

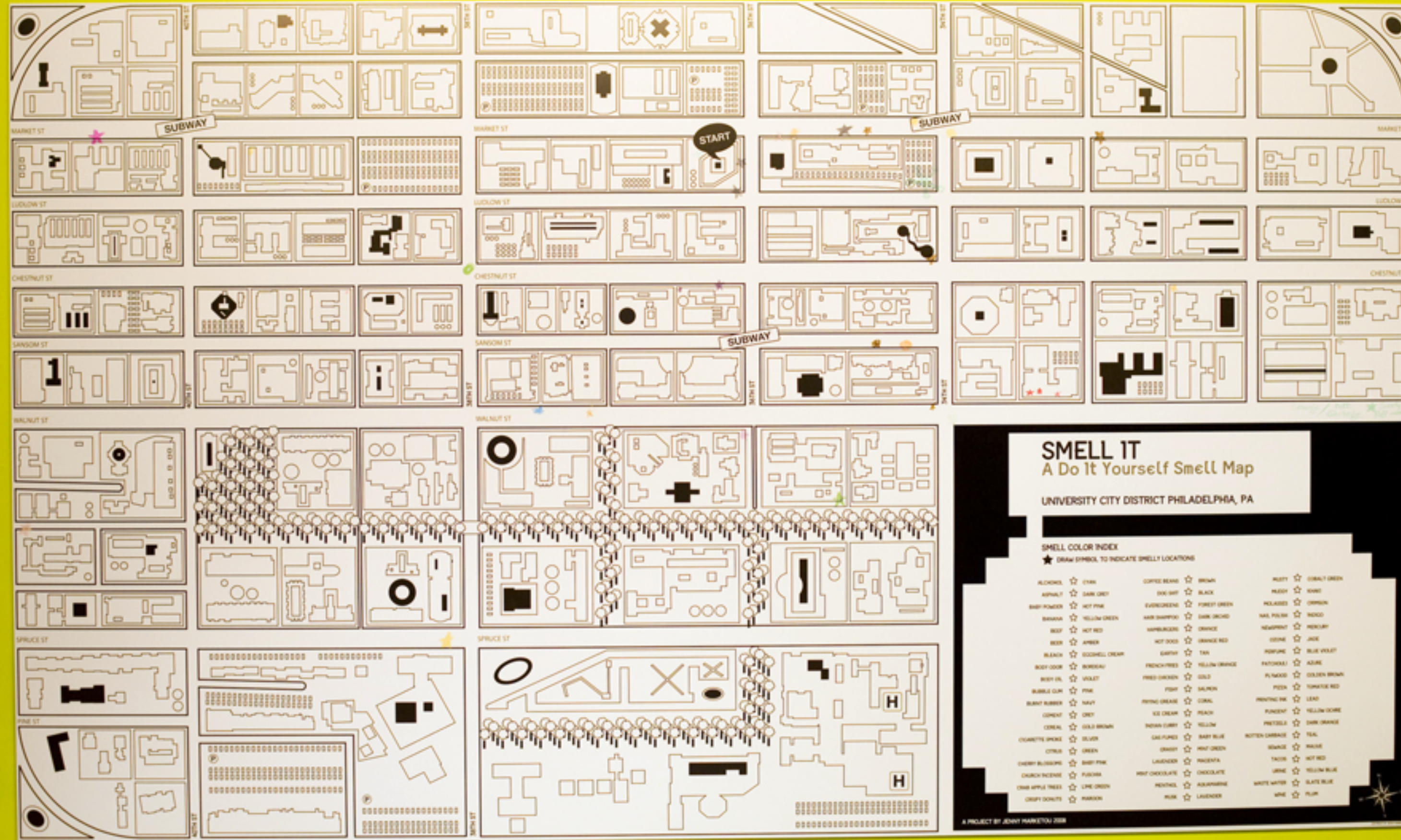
receptors, general physiology of detector (nose), and parts per million of smell were not quantitated in this experiment. **Results:** Table 1 displays the weather conditions and odor canopy for each day of data collection. As seen in Figure 1, the odor canopy (also known as scent plume) was extrapolated using the locations of onset then cessation of Dunkin' Donut smell. Notice that the canopies cluster and intensify around the location of Dunkin' Donuts. This clearly indicates that proximity to the source is a key factor in olfactory detection of the baking doughnut. It was also observed that the smell was not detected only 2 out of the 11 days. One of these days (02/22/2007) was the coldest day

recorded (22°F), had the lowest dew point (5°F), had the highest wind speed (18 mph), and the wind was directed away from the path (South Westerly). Figure 2 shows the temperature compared with the distance of the smell from Dunkin' Donuts whereby the 'distance' is defined as the length from Dunkin' Donuts to the point at which the perimeter of the odor canopy intersects with the path. The distance from Dunkin' Donuts compared to wind speed is shown in Figure 3. No correlation between distance and wind speed was observed. The distance from Dunkin' Donuts compared to dew point (whereby 'dew point' is defined as the temperature to which

the air must be cooled in order for dew to form; it is an indicator for absolute humidity) is shown in Figure 4. No correlation between distance of scent travel and dew point was observed. The distance from Dunkin' Donuts compared with air temperature is shown in Figure 5. No correlation between distance and air temperature was observed. Perhaps worth noting is the anecdotal (unquantified) correlation between temperature and intensity of smell.

Conclusions: A survey of the literature found no articles in any major journals regarding odor canopies of baked goods. These results indicate further study is warranted: expansion of weather variety, survey participants, locales of Dunkin' Donuts etc. A multi-year study involving electronic noses and scent detectors would aid in data collection. The above evidence being utterly inconclusive indicates the need for further research and careful study of Dunkin' Donuts scent plume and urban threshold odor detection in general.

/crowdsourced DIY (2009) – Philadelphia



Marketou, J for 'Odor Limits' (2008)

/digital mashup (2006) – New York



/hashtag sourced smell sources (2015) – London



the smellscape

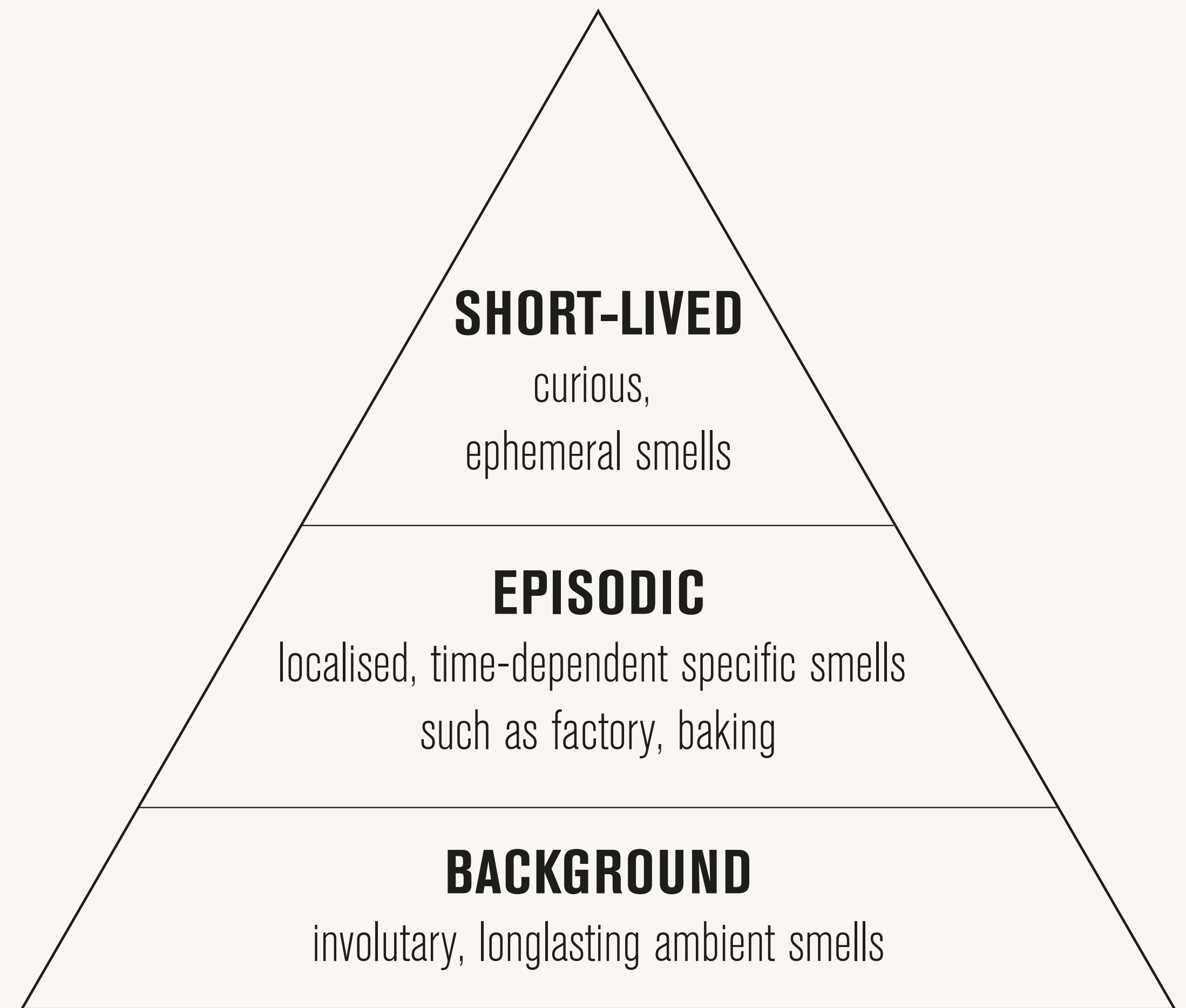
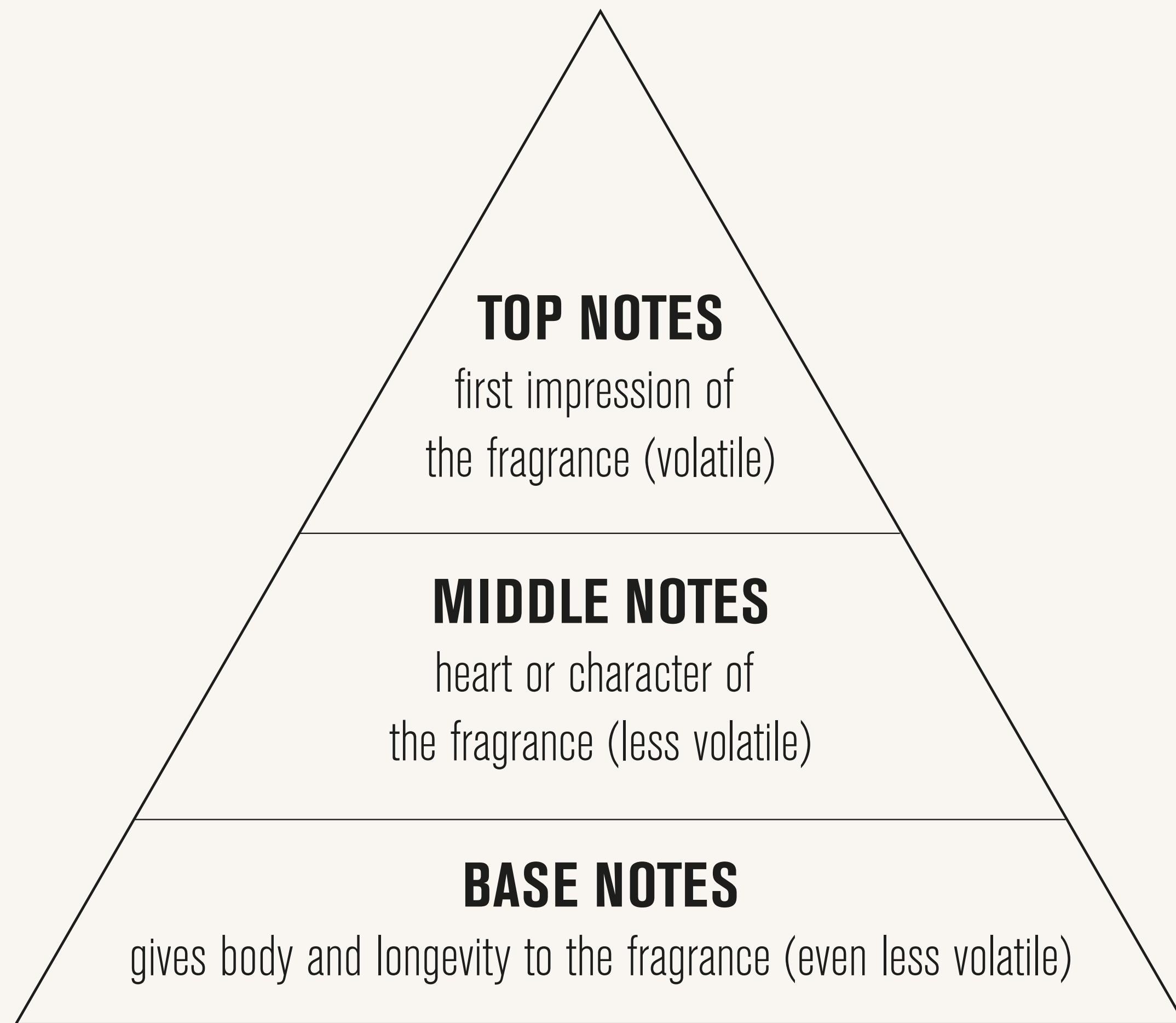
“The smellscape is the olfactory equivalent of a visual landscape...”

“... a spatial and temporal construct... [which] may be embodied, experiential, ingested and immersive, or objectified”

(McLean, 2019)



/theoretical smellscape: perfumery pyramid & urban smellscape



/theoretical smellscape: potential dataset

(Total smells humans can detect is 1 trillion / number of human breaths per day) $1,000,000,000,000^*$ / $24,000^{**}$
= 41,666,667 days to detect every smell

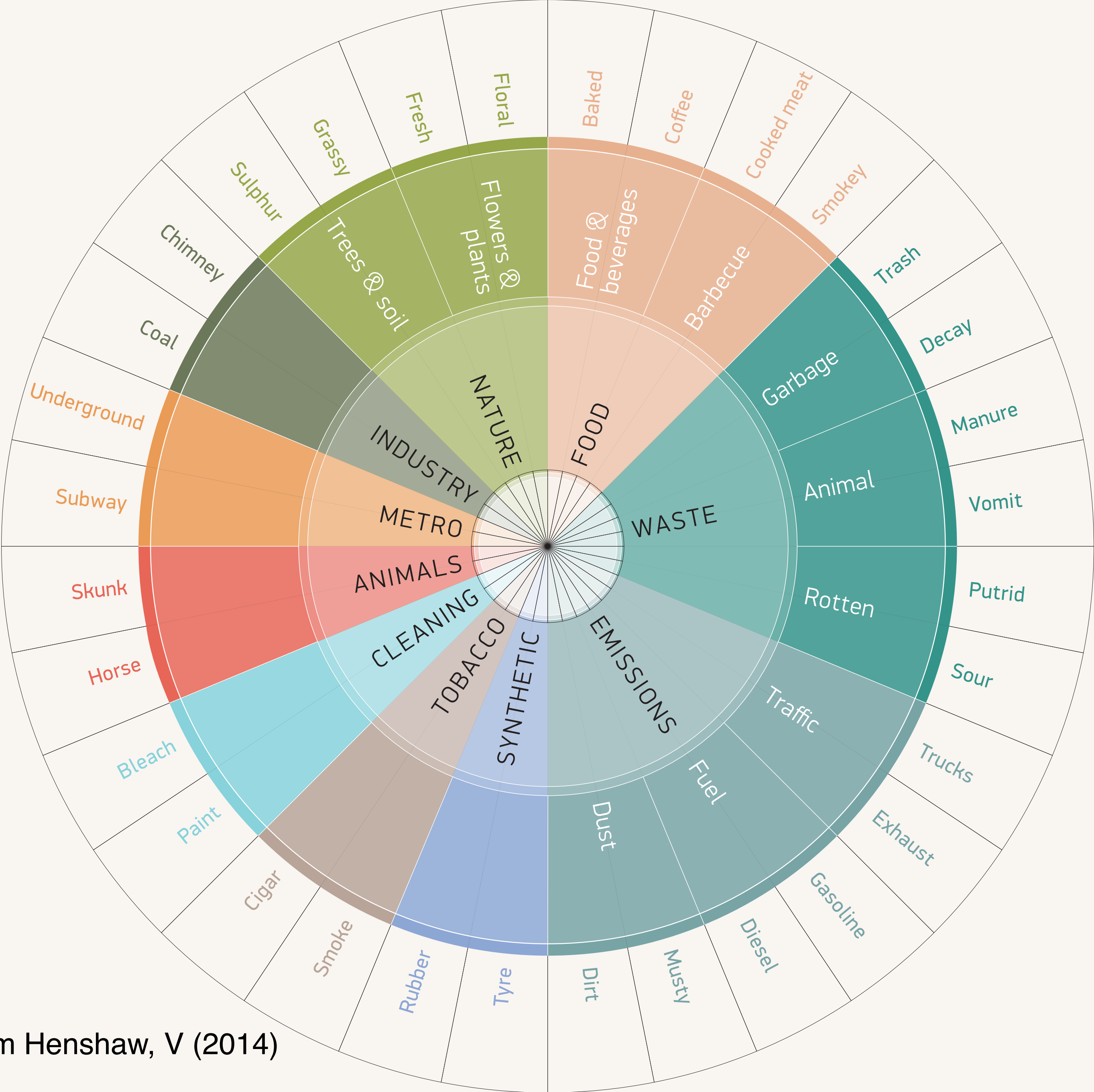
Total number of years to detect every smell

$41,666,667 / 365$

= 114,155 years

if...

/classification: urban smell wheel



McLean, K, Quercia D, Schifanella, R, Aiello (2015) from Henshaw, V (2014)

/classification comparison

Inner Ring – Classification Systems

LINNEAUS (1752) *Odores Medicamentorum*

EDWARDS (1992) *Fragrance Wheel*

NOBLE (revised 2002) *Wine Aroma Wheel*

CASTRO ET AL (2013) *Perceptual Dimensions*

HENSHAW (2014) *Urban*

Outer Ring – Smell Descriptors

Odour source (cause / object / noun)

Descriptive (effect / adjective)

Metaphor (subjective association)

Place (geographic location)

Temporal (season / time of day)

Olfactory Classifications

An Incomplete Portolan of Combined Smelly Knowledges

Project Parameters

- Case study: *Pamplona, October 2014*
- Participants: *58 local people over 5 hours of 'smellwalks'*
- Total number of city smells identified: *441*
- City smells featured: *117 selected by local residents as representative of Pamplona*
- Other smell vocabularies from: *specialist smell classification systems*

Inner Ring – Classification Systems & Odour Wheels

LINNEAUS (1752) *Odores Medicamentorum*

EDWARDS (1992) *Fragrance Wheel*

NOBLE (revised 2002) *Wine Aroma Wheel*

CASTRO ET AL (2013) *Perceptual Dimensions*

HENSHAW (2014) *Urban*

Smell is characterised by a paucity of nomenclature necessitating olfactory industries to develop their own odour classification systems that are 'convenient for learning and remembering' (Dowthwaite, 2016). Visual odour wheels are structurally useful in that they 'help the user move from the broad, e.g., sweet or putrid, to the specific' (McGinley, 2014). My 'Smellscape Mapping' research is interested in vernacular smell descriptors, and in identifying which olfactory classification system, if any, may be the most useful to the practice. This visualisation of cross-referenced smell descriptors with five classification systems is designed to reveal connections and identify loose ends.

Five seminal classification systems were chosen from research in established fields; Botany (Linnaeus), Perfumery (Edwards), Wine (Noble), Neuroscience (Castro) and Urban Design (Henshaw) from which a total of • *355 individual smell descriptors* were aggregated into an alphabetic listing including • *127 smells identified by smellwalkers during primary research in Pamplona in 2014* conducted as part of the annual Mapamundistas Visual Arts programme. Each smell descriptor links with a direct line to the classification(s) in which it has a mention. The Pamplona smells were mapped to possible categories.

References

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- Edwards, M. (2016). *The Fragrance Wheel: Fragrances of the World*. Retrieved August 30, 2016, from <http://www.fragrancesoftheworld.com/fragrance-wheel/>
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- Noble, A. C. (n.d.). *About the wheel*. Retrieved August 30, 2016, from <http://www.winearoma.com/>
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Outer Ring – Smell Descriptors

Odour source (cause / object / noun)

Descriptive (effect / adjective)

Metaphor (subjective association)

Place (geographic location)

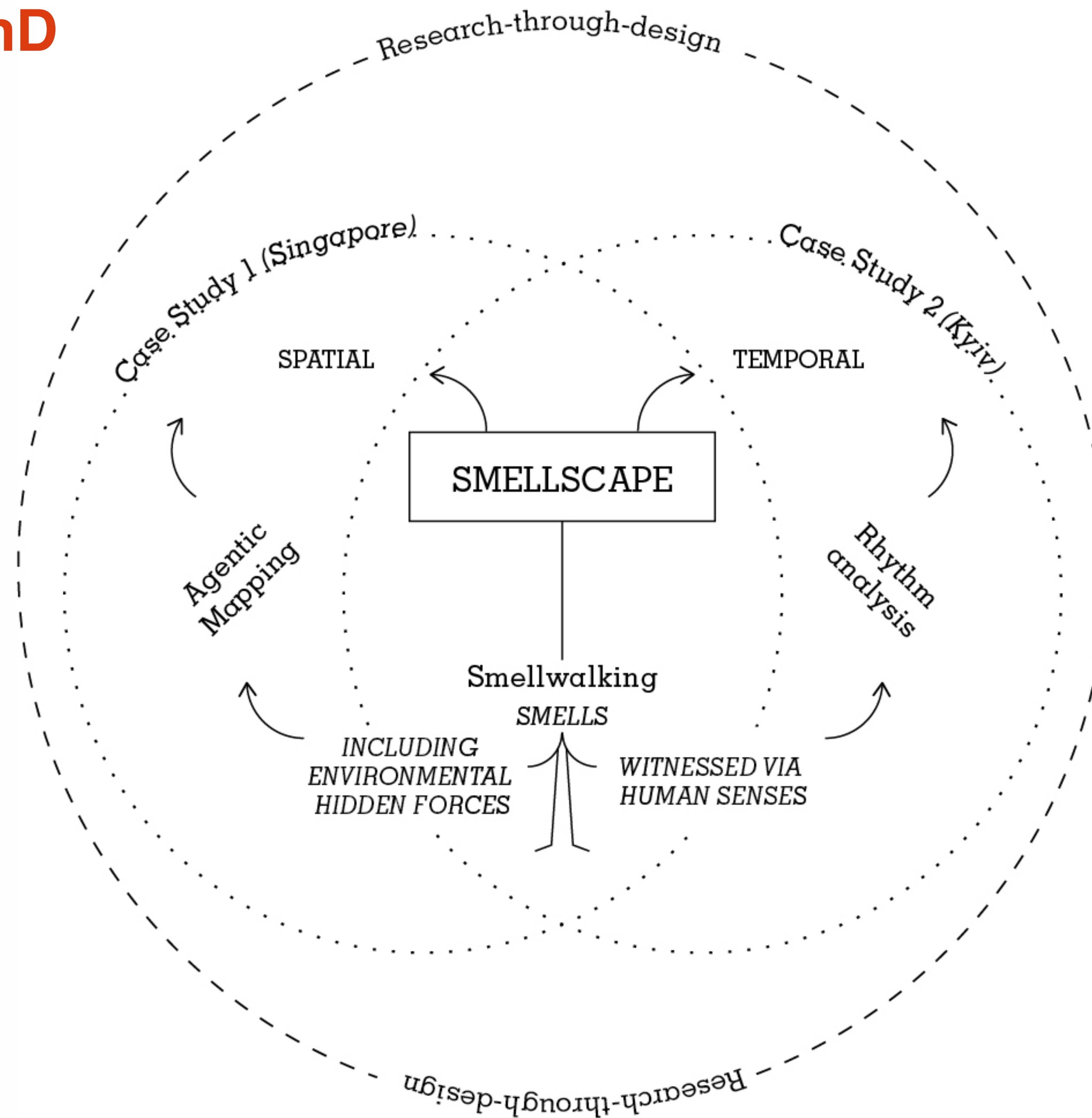
Temporal (season / time of day)

Sperber (1975) indicates two ways to talk about smell; one derives from the cause and the other from the effect. For example 'blackberry' and 'mint' are the source of the smell, they cause it. Whereas 'disgusting' (human reaction) and 'burnt' (after-effect) are the experiences of a smell. In addition to cause and effect, my research reveals that some smell descriptors are complex in terms of their composition, and some are place-related (McLean, 2011) here exemplified by 'church' and 'hairdresser'. Some smells take the form of subjective associations metaphors that have very specific meaning to individuals e.g. 'pre-university exam'. There are also time-based odours which can be seasonal e.g. 'autumn' and 'summer'. However, the use of language in such cases is not clear cut and I can argue that 'pre-university exam' is both temporal and a metaphor just as 'marker' is both a place and a temporal activity. Indeed all smells have a temporal dimension.

In the quest to reduce complexity odour classification, professional systems reveal disagreement as to how to best classify smells, thus indicating a complexity and confusion in using language as a representational method. Vernacular smell descriptors are often non-reductive, compound and enthusiastic, resisting obvious placement in any category. What to do with such smells?

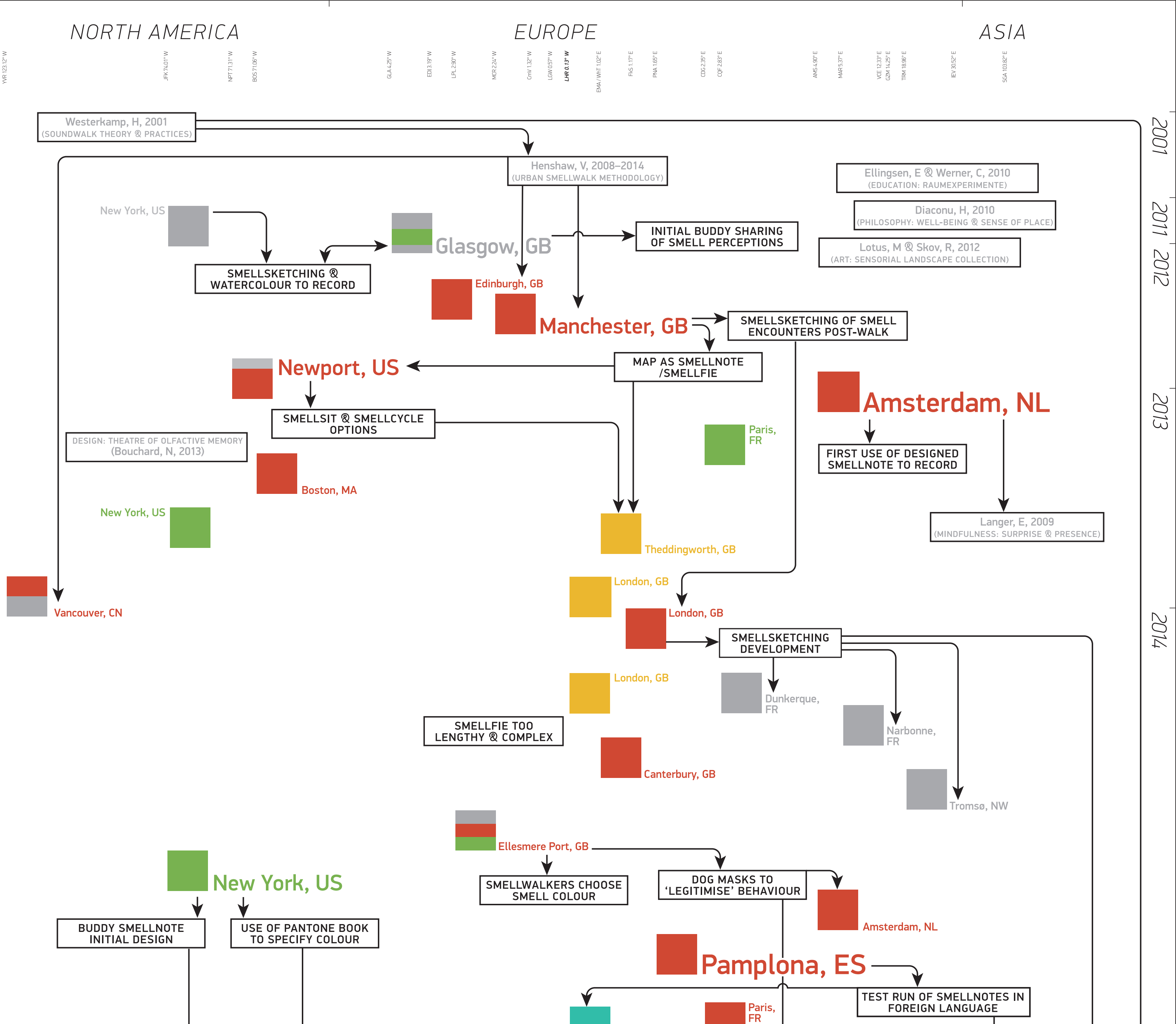
Methodology

/methodology for PhD



(McLean, 2019)

/smellwalks



Reflection-in-Practice
DEVELOPMENT OF THE
SMELLWALK
(METHODS AND TOOLS FOR WALKING AND
RECORDING EVERYDAY SMELLSCAPES)
2011 – 2016

GROUP WALK

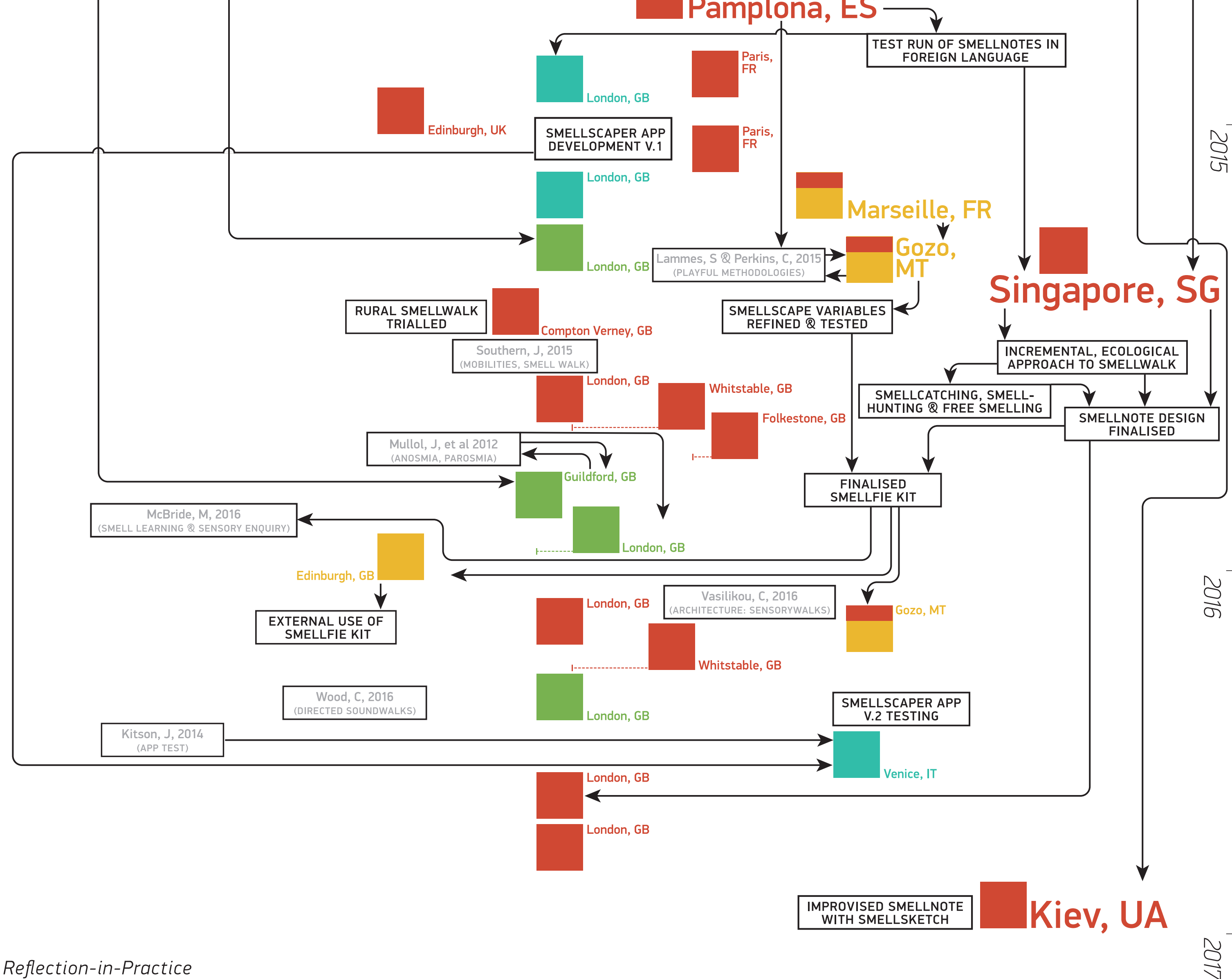
BUDDY WALK

SMELLFIE

APP WALK

SOLO WALK

SMELLWALKING IS A FORM
OF SMELLMAPPING



smellwalk: a tool for data collection

- *A sensewalk, Adams et al (2008), in which information received through the nose is foregrounded and recorded*
- *A methodology for determining phenomenological experience of place/space*
- *First interrogated through lens of human geography by Porteous (1985)*
- *Used extensively within urban planning and design by Henshaw (2014)*
- *Sequential recording of smells generates an experiential narrative.*

/stage 1. smell catching



Photo: Harkin, B of Smellwalk NYC © Kate McLean (2014)

/stage 2. smell hunting



Photo: Harkin, B of Smellwalk NYC © Kate McLean (2014)

/stage 3. free smelling



Photo: Lydford, V of Smellwalk Pamplona © Kate McLean (2014)

/transgressive behaviour?



Photo: Harkin, B of Smellwalk NYC © Kate McLean (2014)

SMELLWALKPLACEMONTHYEAR

“Humans can discriminate at least 1 trillion olfactory stimuli” (Bushdid et al, 2014)

“Unlike the eyes, we can’t close our noses. We breath 24,000 times a day immersed in smells, but only paying scant attention. Despite digital sensor development the nose remains the most sensitive data collection device that exists for smell information. This anti-technological method is designed to encourage discussion about the human and ephemeral-environment reciprocity as mediated by the human body.

Smellwalking (walking ‘nose-first’) proposes a knowledge of the world through individual sensory information. Smellwalking is a recognition of the fleeting, embracing a sense of the elusive, generating the sensations of being a detective with a giant magnifying glass that enlarges the olfactory world.. Through three staged short walks we will come to know ‘nose-first’.

[Handwritten signature]

Name: _____

I rate my sense of smell as:
Very sensitive Sensitive Average Poor Very poor

Comments. What did you take from the experience of walking nose-first?

a record of a smell experience including at a minimum naming a smell...

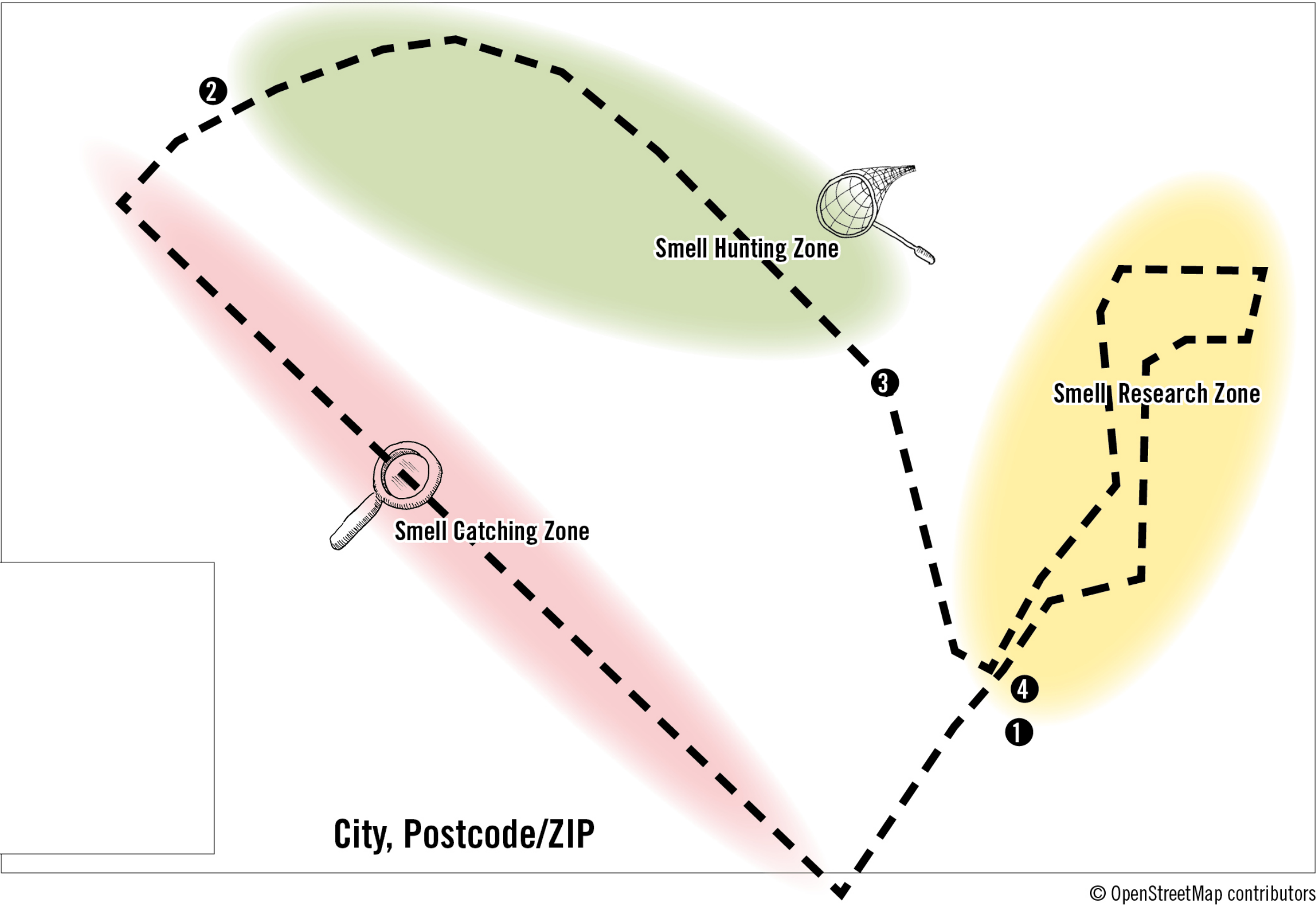
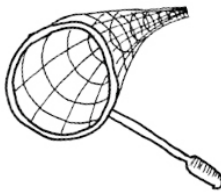
#smellwalk @twitterhandle(s)

SMELLWALKPLACEMONTHYEAR

Smellwalk with: Name of smellwalk leader
Date: Day and date
Time: Time of walk

Meet: Place / time

- 1 Start: Place / time
- 2 Stop #1: Place / time
- 3 Stop #2: Place / time
- 4 End: Place / time



SMELLWALKPLACEMONTHYEAR

Smell no. (pinpoint the smell number on the map)	Name of smell	Smell intensity (weak strong)	Smell duration (short long)	Smell like/ dislike (dislike like)	Expected smell? (yes no)	Comments & thoughts
1.	Smell Catching (airborne smells, distant,)	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div></div>	
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5.	Smell Hunting (interesting smell sources, close-up	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div></div>	
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9.	Smell research (your choice of 4 linked smell experiences)	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div></div>	
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12.		<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div></div>	
13.	Summary smell (pick one smell from today's experience)	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div></div>	

...may also include qualitative datafields to record the intensity, duration, hedonic tone, expectation and association of a smell

/smellwalk side effects

- new encounter with a familiar environment
- reinforces individuality of experience, facilitates shared understanding



/completed smellnote

Scent on the map)		
1.	Passive smelling (scent that crosses your path)	smoke, cinnamon, cardamom, sandal
2.	smell catchers	fabric, gasoline, exhaust, rubber
3.		vegetable, fruity, sewage
4.		fried food, jasmine, wood
5.	Active smelling (scents you seek out)	
		fruit, glasses - fruity
6.	bin	gunny sack, woody
7.	smell hunters	post box - oily, coffee
8.		metal - floral, sport bottle - dried, aldehydes
9.	Free smelling (your choice of active or passive smelling)	
		sesame oil
10.	scent catch	herbal, dried, rose, medical
11.		cherry, metal, campfire, grill food
12.		sewage, bakery, eggs, alcohol, perfume, cigarette
13.	Summary scent (indicative scent of this walk)	
		Herbaceous

/choosing smell colours

- selecting colours for scent encounters from Pantone Matching system



Case Study 1:

**Spatial dimensions of
smell: Singapore**

Case Study 2:

**200 years of olfactory
heritage: Widnes**

Smell changes across space.

**Cartographic representations of smell to
imagine what would happen if we could
'see smells'.**

/a) scentscape: analysis and symbolisation

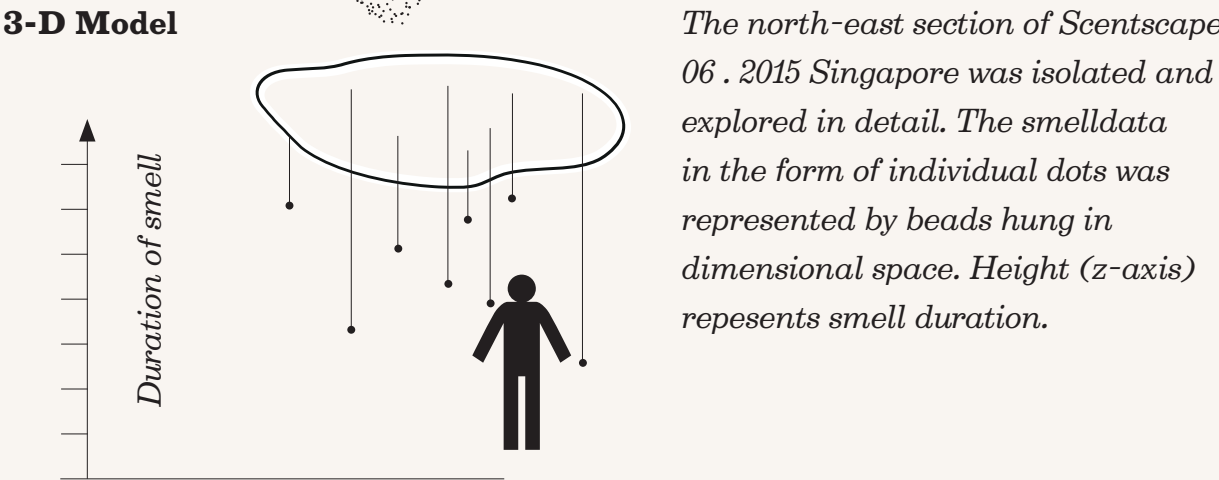
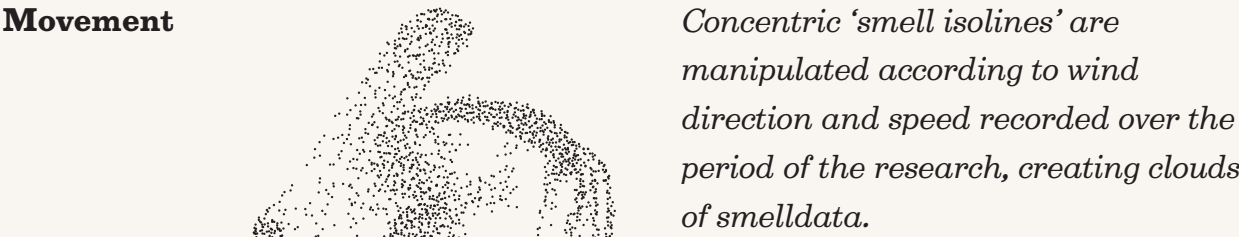
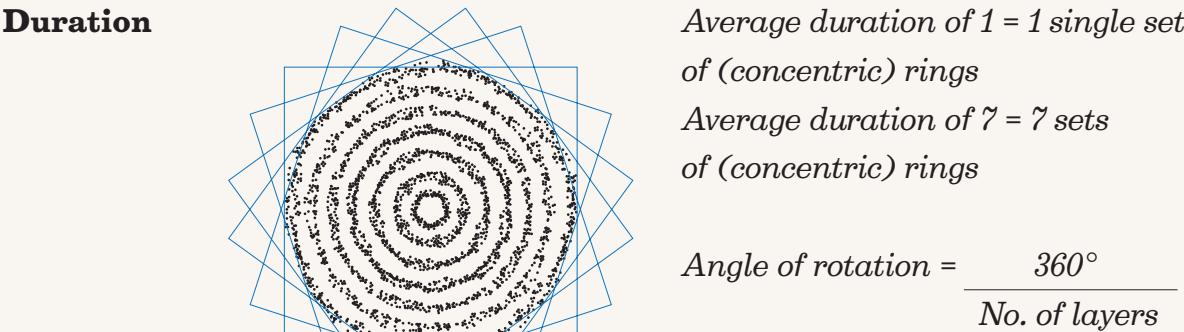
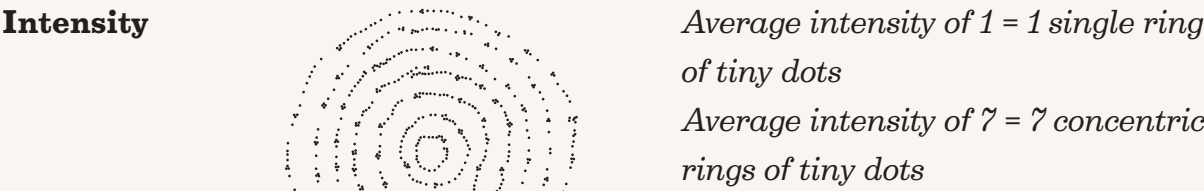
Scentscape 06 . 2015 City of Singapore
Scent selections from database for inclusion

Scent category	Description	Colour	Neighbourhood	Intensity	Duration
Background (Base notes)	Humidity	●	Off-shore Brani Island	7	7 (+ 1)
			Marina Bay	7	7 (+ 1)
			Off-shore ECPz	7	7 (+ 1)
	Spicy, smokey, hot	●	Chinatown	7	5
			Katong	7	5
Toa Payoh			7	5	
Episodic (Middle notes)	Roti prata + curry	●	* Katong	6	6
			Kampong Glam	4	3
			ECP	4	3
	Shisha	●	Chinatown	7	5
			Little India	6	5
			* Kampong Glam	7	5
	Herby, minty, bitter, dried	●	* Chinatown	6	5
			Sentosa	2	2
			ECP	5	4
	Salt, seawater & salty air	●	Katong	3	3
			Kampong Glam	4	3
			Gardens by the Bay	5	4
			* Sentosa	5	6
			ECP	5	4
			Katong	3	3
Kampong Glam			4	3	
Gardens by the Bay			5	4	
* ECP			4	4	
Kampong Glam			5	6	
Manila Rope	●	* Gardens by the Bay	2	3	
		Chinatown	4	2	
		Sentosa	2	6	
		ECP	2	3	
		Katong	7	6	
		Kampong Glam	6	6	
		* Little India	3	4	
		Chinatown	6	3	
		Gardens by the Bay	5	4	
		Katong	3	6	
Unpolished wood	●	Kampong Glam	1	4	
		Sentosa	7	7	
		* Orchard Road	5	2	
		Gardens by the Bay	6	4	
		Sentosa	4	1	
		Chinatown	3	3	
		Katong	5	2	
		Kampong Glam	6	6	
		* Toa Payoh	7	7	
		Chinatown	4	3	
Jasmine	●	Little India	5	5	
		Marina East	7	7	
		Orchard Road	6	5	
Curiosity (Top notes)	Broccoli / deep dark secrets	●	Gardens by the Bay	1	1

* Representative smell of the neighbourhood

Smell icons for creative mappings

Desimini and Waldheim¹⁴ argue that as design re-engages with cartography we should consider revisiting representational techniques to reconnect with the ground portrayed in the map. One technique employed by cartographers, to visualise a constant value, is the isoline (contour line). I suggest that this familiar visual language can also be used to indicate the perceived intensity of a smell. And in representing an invisible, volatile cloud extant visualisation might be repurposed to reveal the immersive potential in mapping invisible and ephemeral sensory percepts.

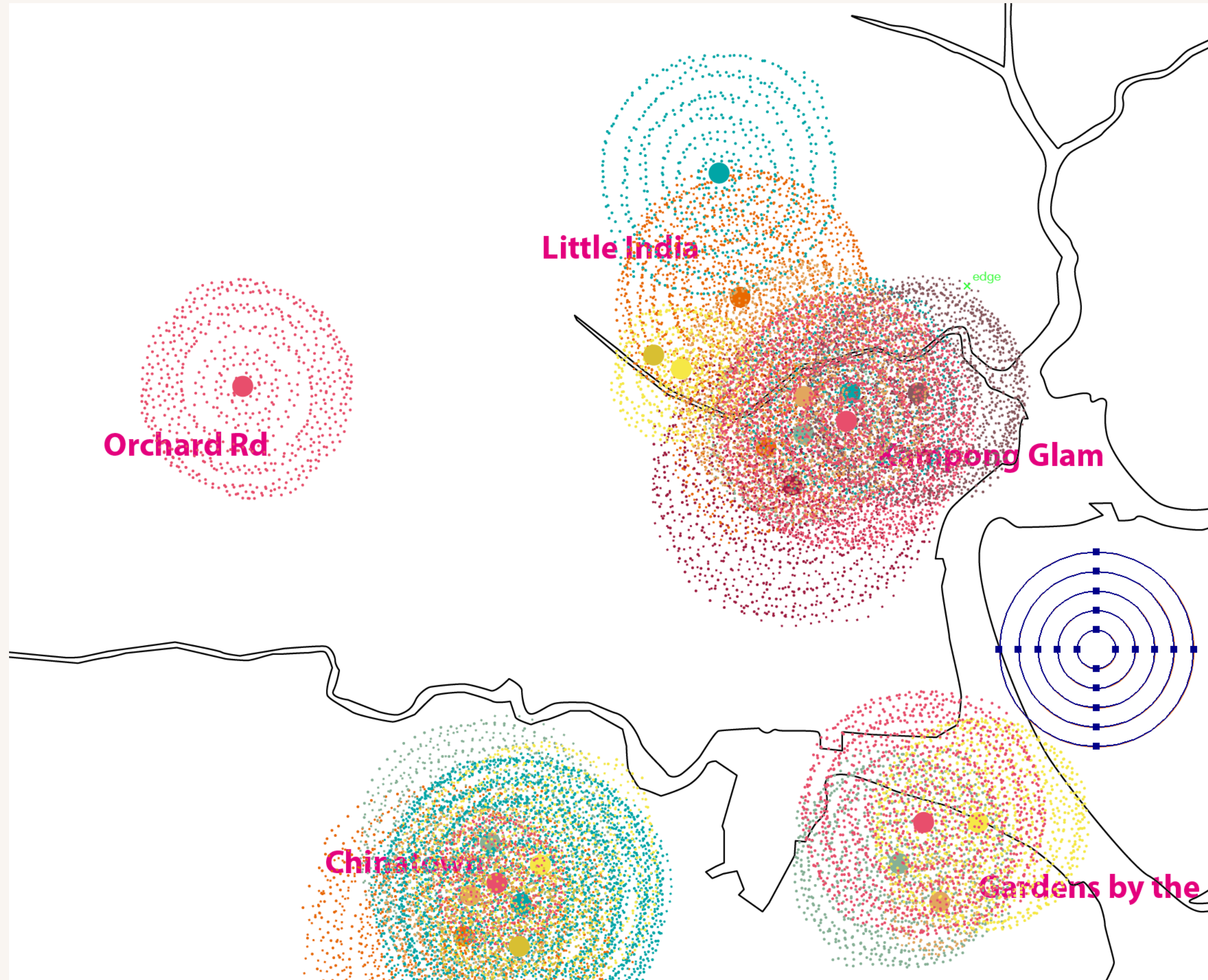


figs. 29 – 32 | Smellscape map symbol creation ©2016 Kate McLean

/mapping process: 'fields', 'extracts', 'plottings' (Corner, 1997)

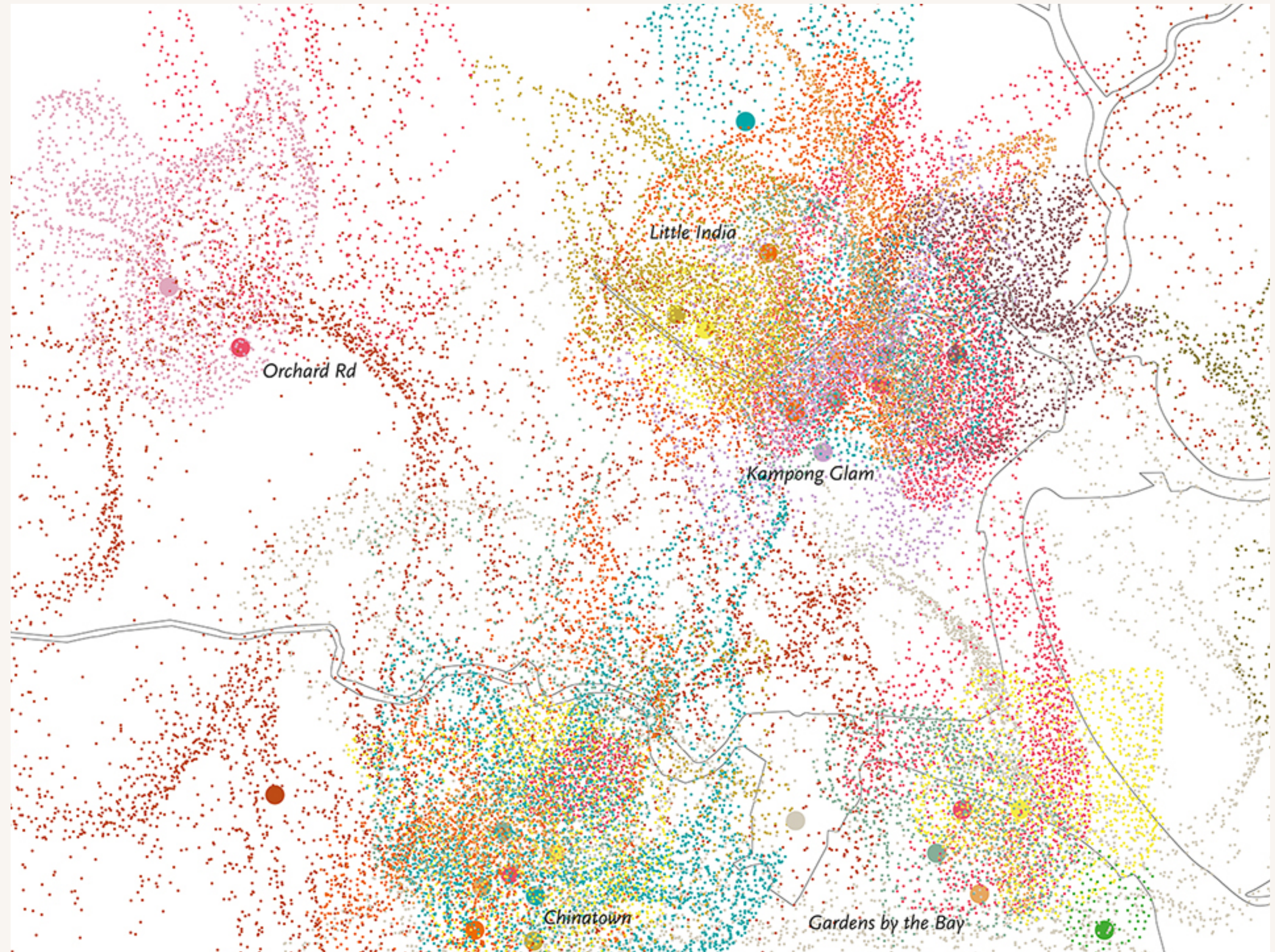
'Mapping operations' (Corner, 1999) of:

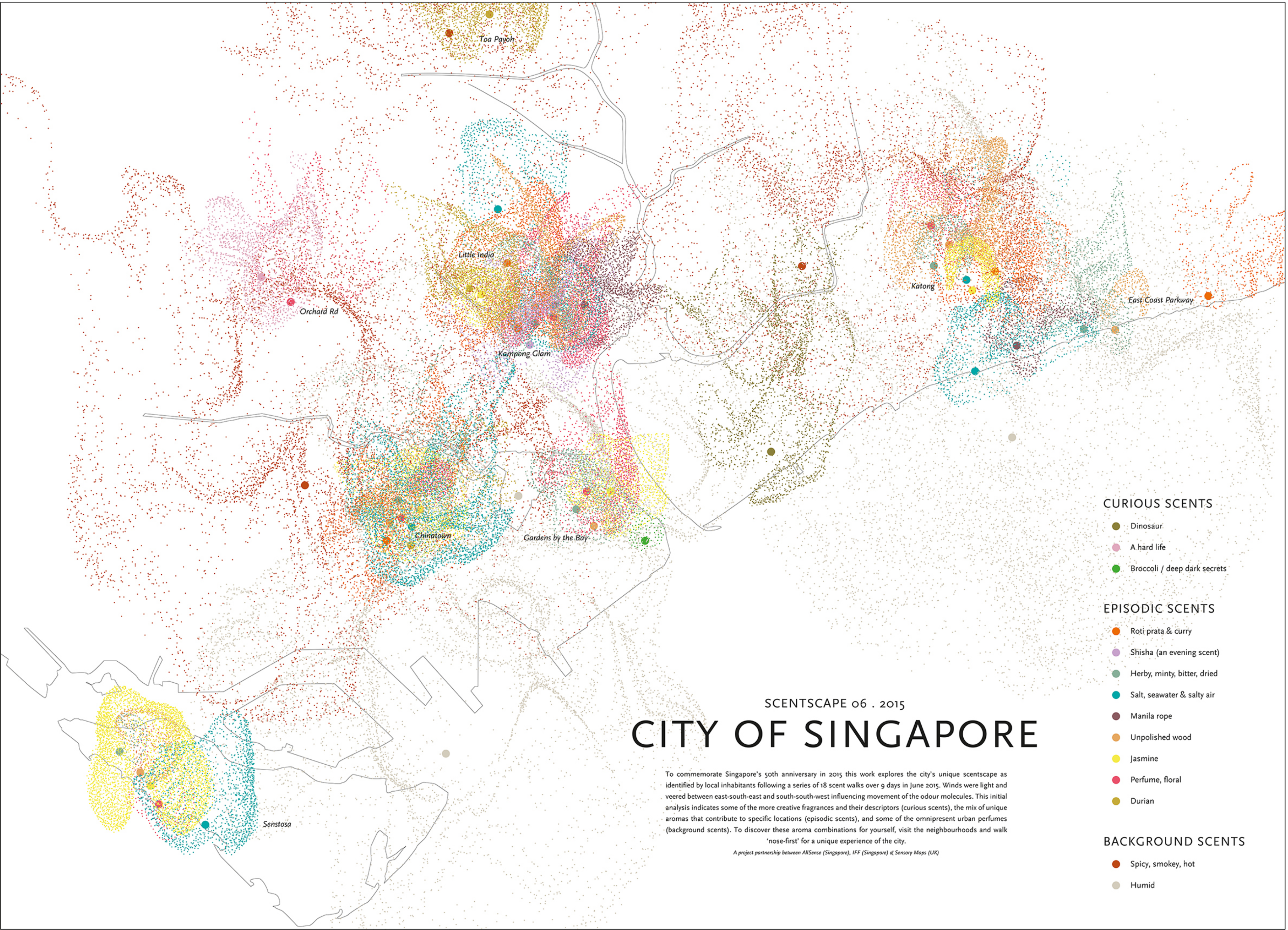
- 'fields' - boundaries
- 'extracts' - observed
- 'plottings' - new latent relationships



/scentscape mapping

- Application of mapping conventions, layers and symbols, to depict complexity of the smellscape





SCENTSCAPE 06 . 2015

CITY OF SINGAPORE

To commemorate Singapore's 50th anniversary in 2015 this work explores the city's unique scentscape as identified by local inhabitants following a series of 18 scent walks over 9 days in June 2015. Winds were light and veered between east-south-east and south-south-west influencing movement of the odour molecules. This initial analysis indicates some of the more creative fragrances and their descriptors (curious scents), the mix of unique aromas that contribute to specific locations (episodic scents), and some of the omnipresent urban perfumes (background scents). To discover these aroma combinations for yourself, visit the neighbourhoods and walk 'nose-first' for a unique experience of the city.

A project partnership between AllSense (Singapore), IFF (Singapore) & Sensory Maps (UK)

CURIOUS SCENTS

- Dinosaur
- A hard life
- Broccoli / deep dark secrets

EPISODIC SCENTS

- Roti prata & curry
- Shisha (an evening scent)
- Herby, minty, bitter, dried
- Salt, seawater & salty air
- Manila rope
- Unpolished wood
- Jasmine
- Perfume, floral
- Durian

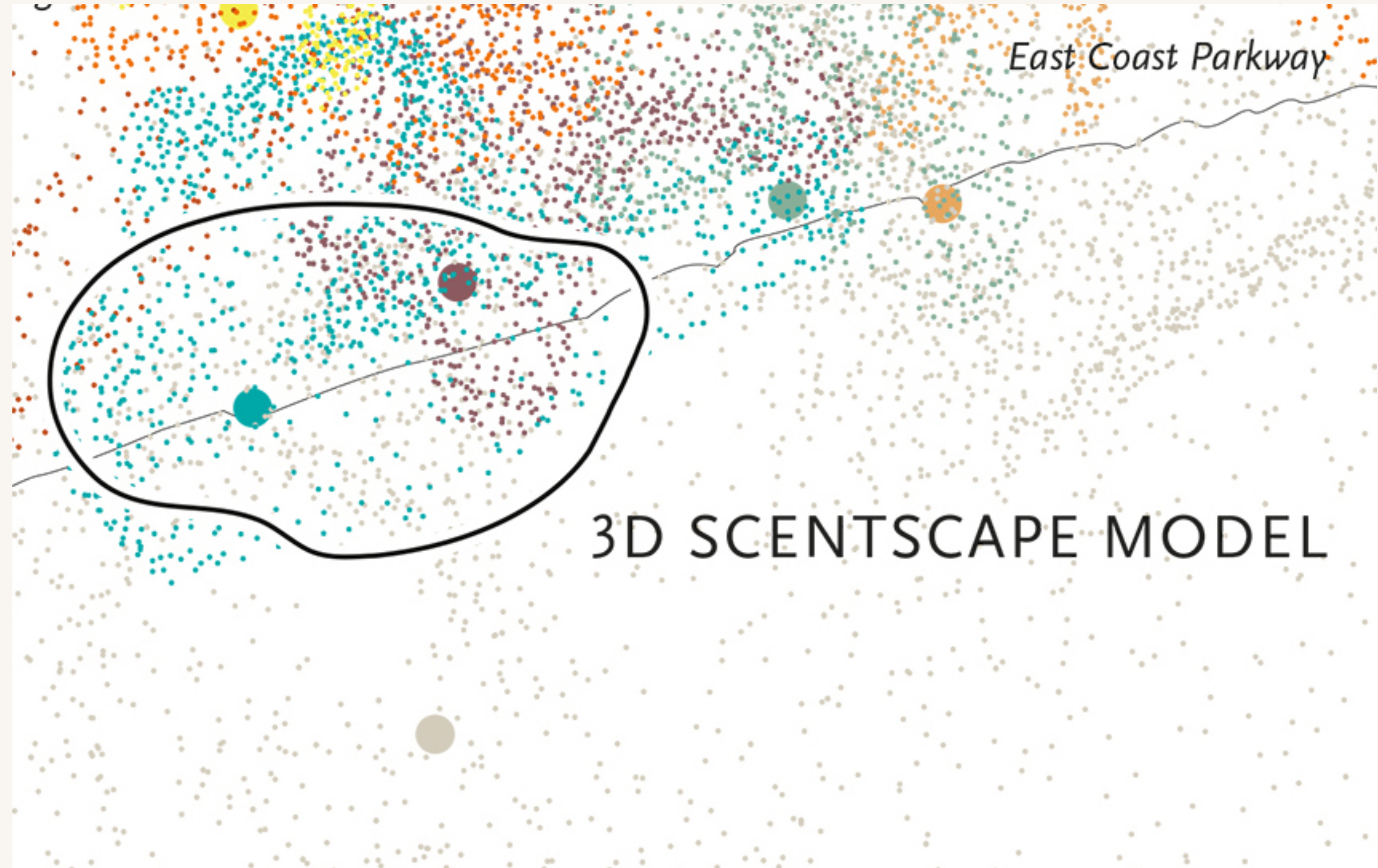
BACKGROUND SCENTS

- Spicy, smokey, hot
- Humid

Copyright © 2015 Kate McLean | kate@sensorymaps.com

/volumetric scentscape

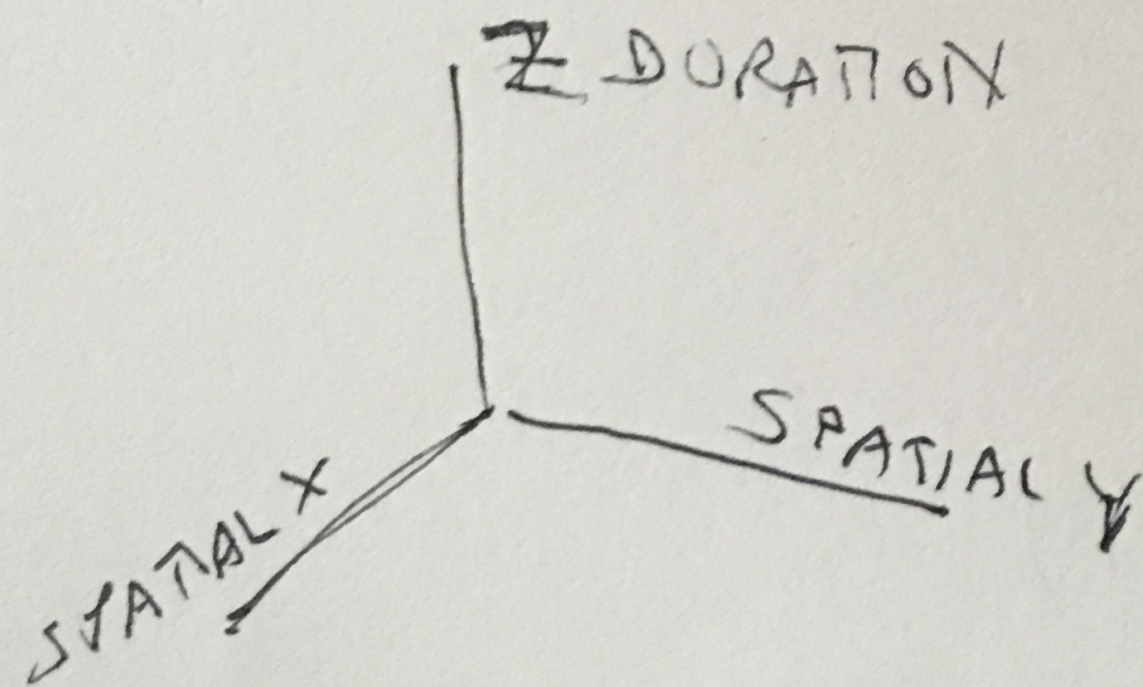
- Data physicalisation, ‘encoding data in physical artefacts’ (Huron, 2017) explored the relationship between people and airborne scents



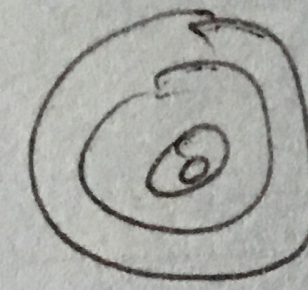
/3D model

SEPT 23, 2015

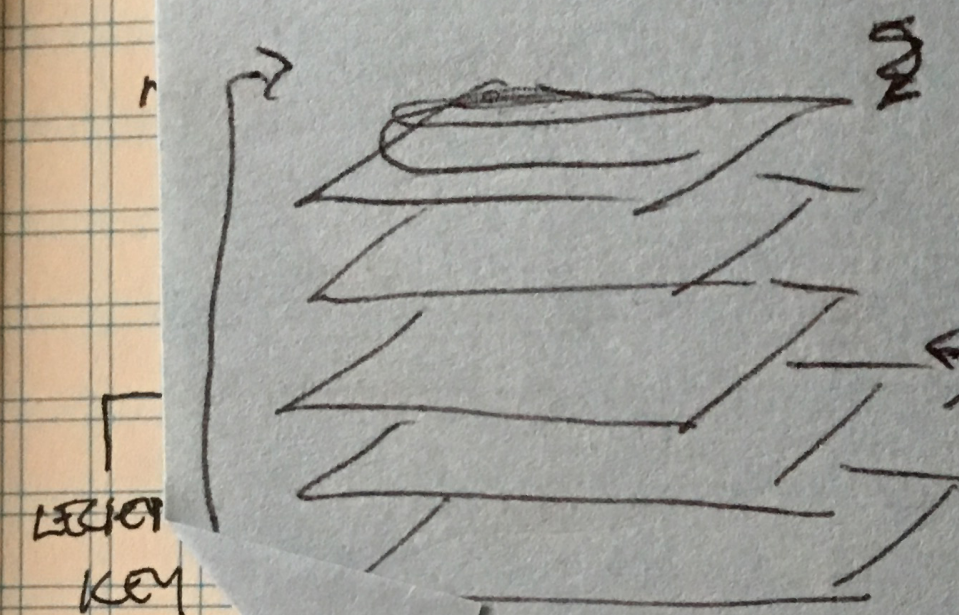
AXES & DIMENSIONS



$X + Y = \text{CO-ORDINATES ON LAND}$

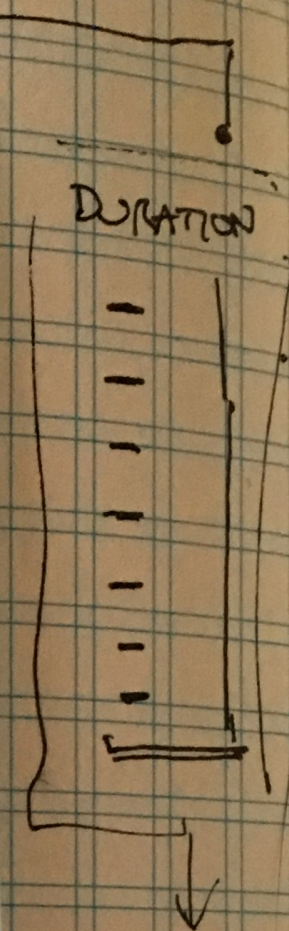


INTENSITY



DURATION

ROTATION = $\frac{360}{\text{DURATION}}$



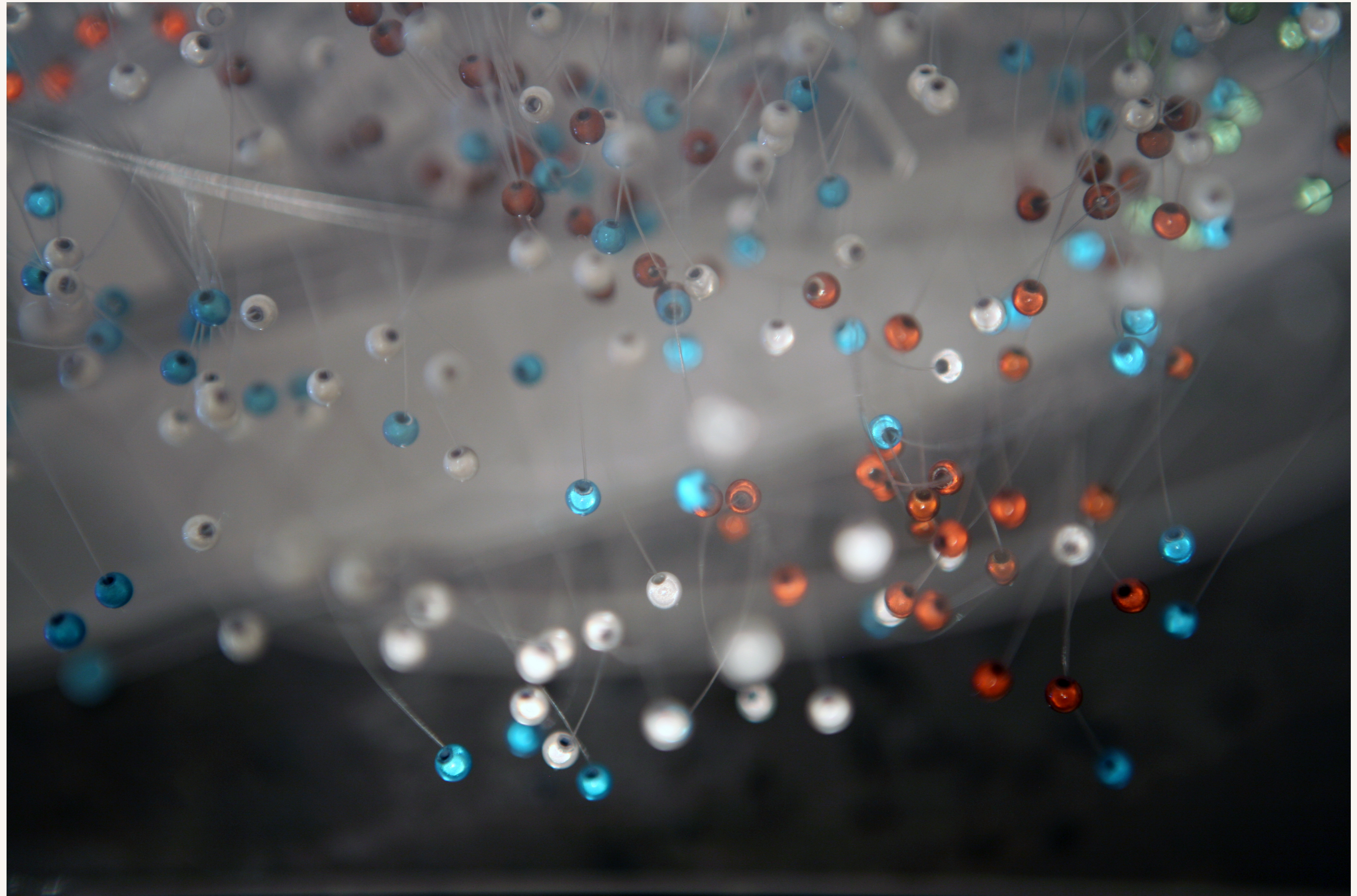
3D.



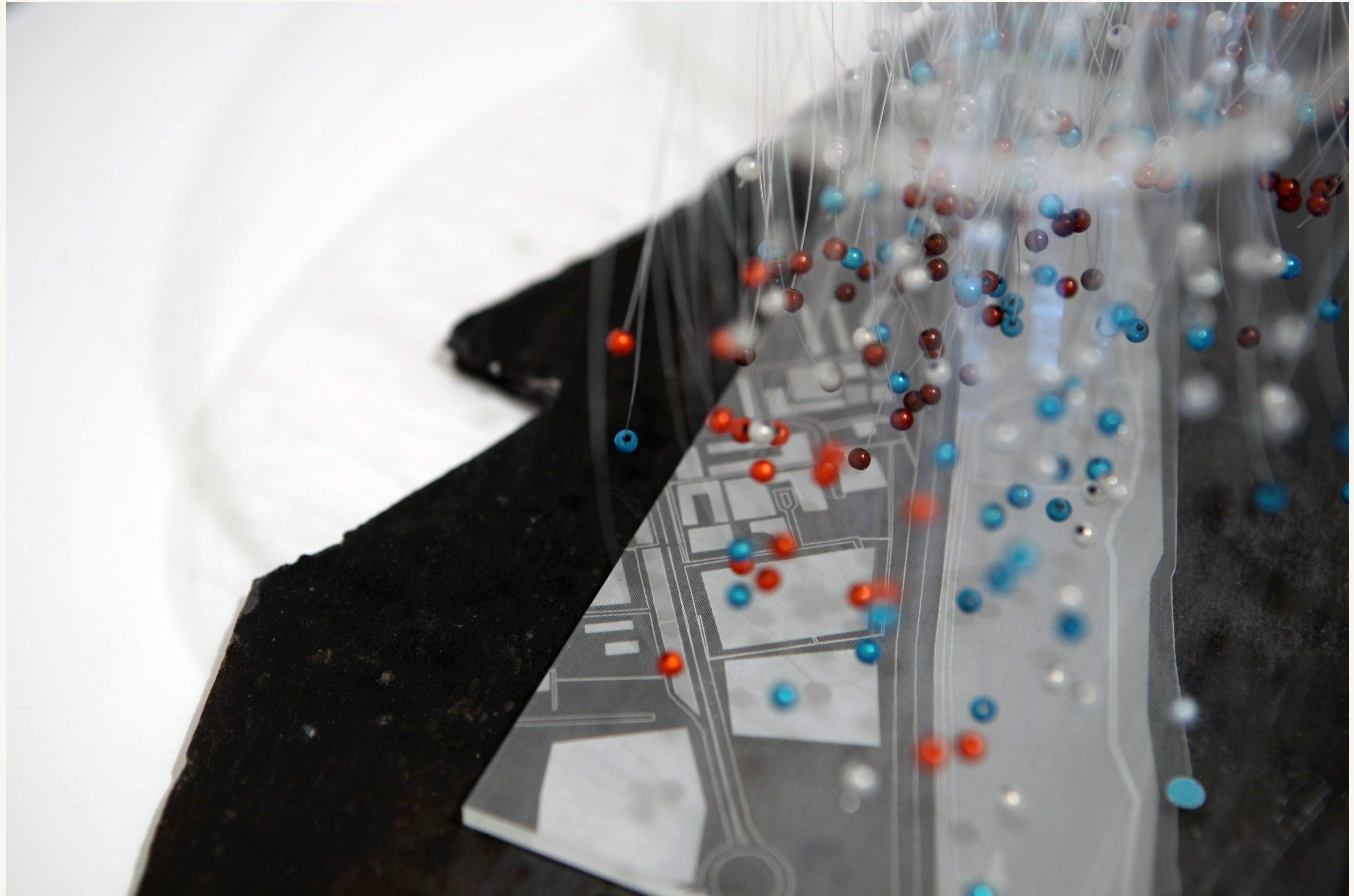
BEAD HEIGHT =

/dimensionality of smell

- beads on nylon thread knotted into clear acrylic represent the physicality of smell molecules



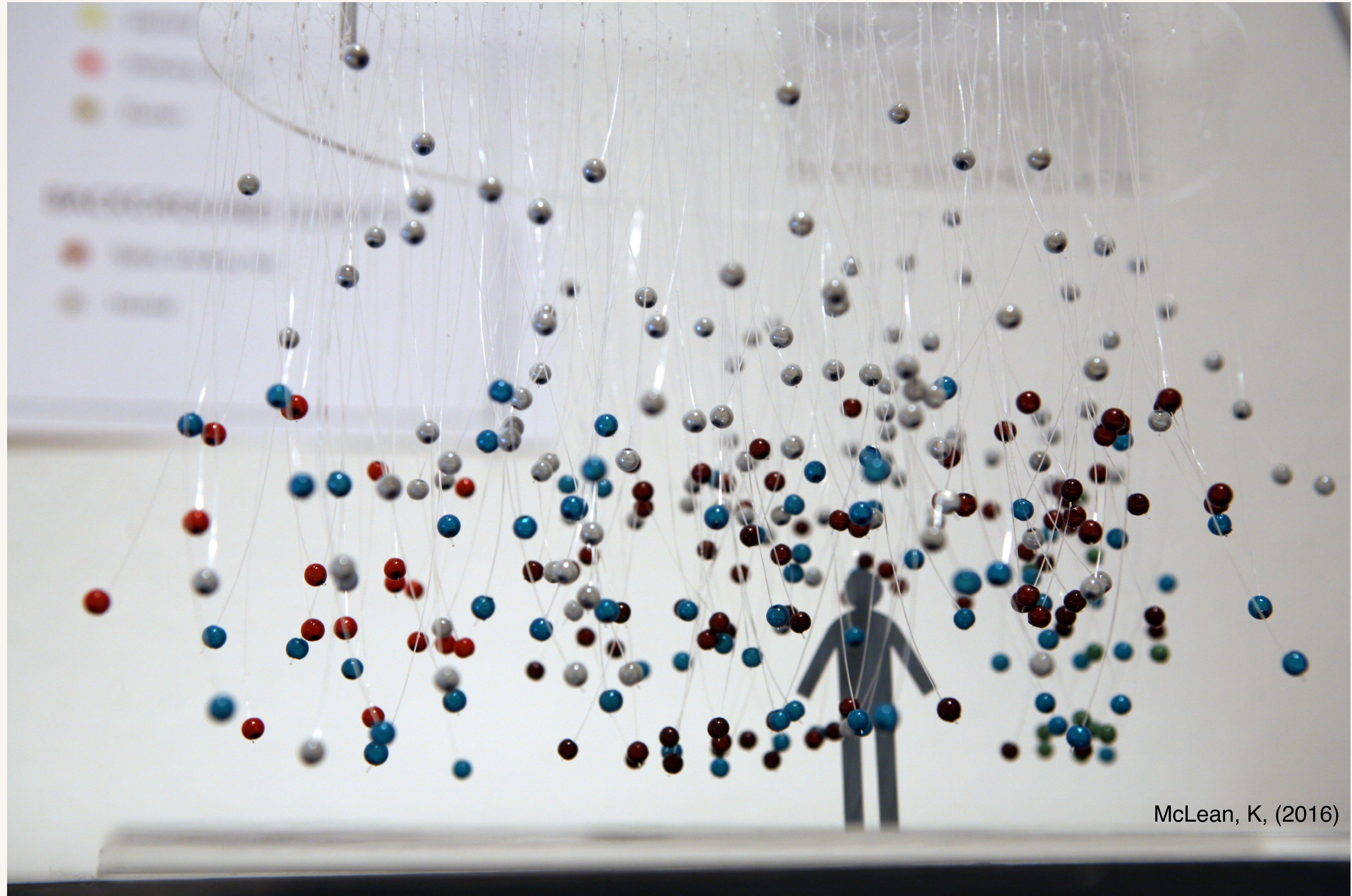
/dimensionality of smell



• etched acrylic base map

/if we could see smells...

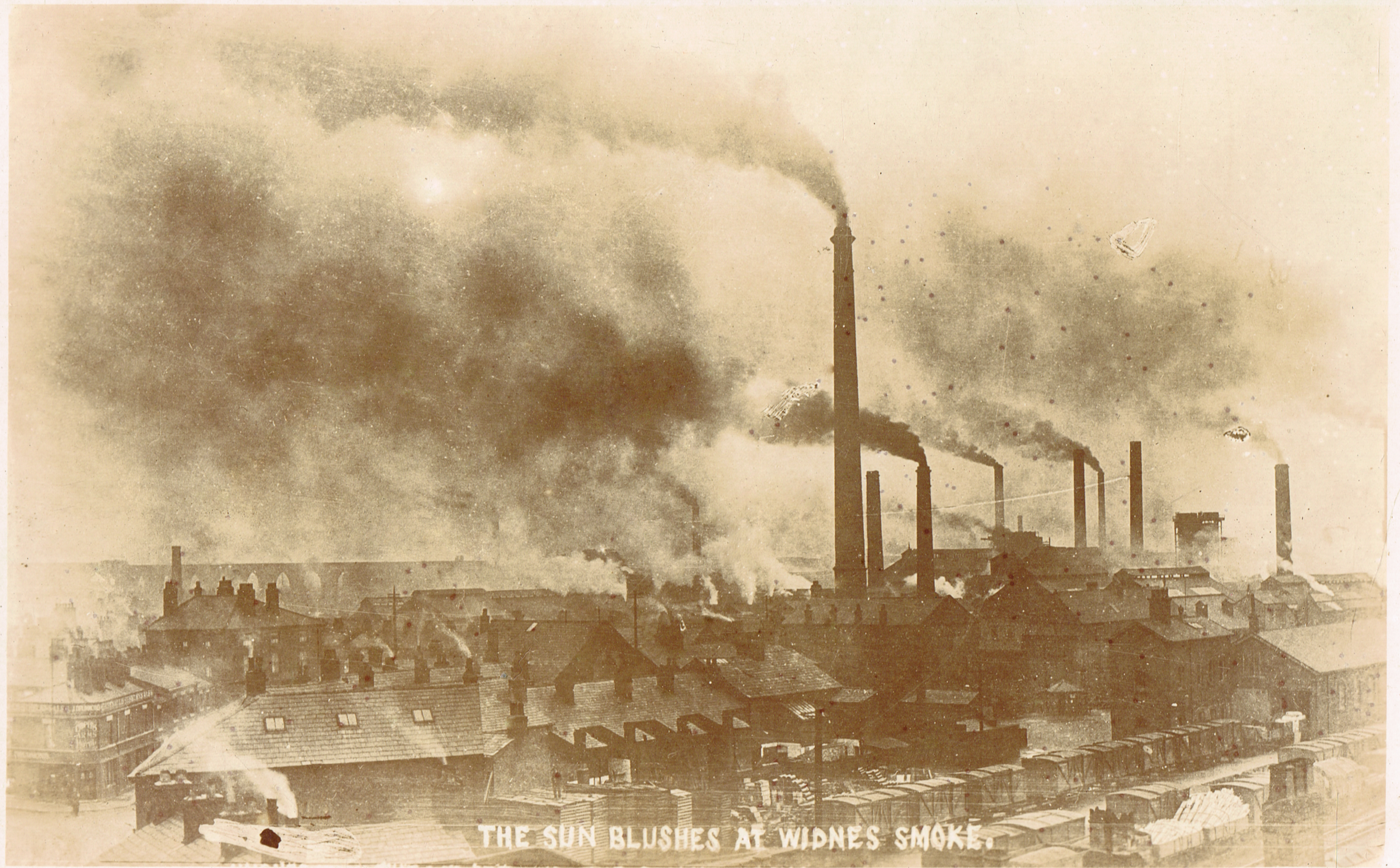
- Figure highlights latent ecological relationships between smells and people



McLean, K, (2016)

Smell changes over time.

Cartographic representations of change as a form of 'social cartography' (Habegger and Mancila, 2006: 6).



THE SUN BLUSHES AT WIDNES SMOKE.

Stuart Turton on Widnes: 'It was famous for its smell. On bad days, the air punched you in the nose'

Paul Simon was apparently so demoralised by the place he wrote 'Homeward Bound' on the station platform - but unlike Turton, he was only visiting



▲ Widnes, with the Fiddlers Ferry power station in the distance. Photograph: Joanne Moyes/Alamy

On a map, it looks as if it's sidling up to Liverpool to scrounge a cigarette. Manchester has taken a step back, probably to get away from the smell. Widnes was famous for its smell. The town was basically a load of chemical factories and manufacturing plants with some houses squished between them. On bad days, the air punched you



Two Centuries of Stink

Smell description:
Weak beer

Smell intensity (circle one option)
Weak 1 2 3 4 5 6 Strong 7

Smell location e.g. (B,4): (J, 4)
Street name (if known): Mersey Rd

Interesting info about the smell:
Smell of beer, warmth and company in the Angel Public House

Do you know when it was?
(Please circle approximate date)
1860 – 1880 1940 – 1960
1880 – 1900 1960 – 1980
1900 – 1920 1980 – 2000
1920 – 1940 2000 – 2020

Two Centuries of Stink

Smell description:
Stinking Widnes

Smell intensity (circle one option)
Weak 1 2 3 4 5 6 Strong 7

Smell location e.g. (B,4): (A, 1 - N, 10)
Street name (if known): across the town

Interesting info about the smell:
“there are few people who have not heard of stinking Widnes and its melancholy surroundings”

Do you know when it was?
(Please circle approximate date)
1860 – 1880 1940 – 1960
1880 – 1900 1960 – 1980
1900 – 1920 1980 – 2000
1920 – 1940 2000 – 2020

Two Centuries of Stink

Smell description:
Opening the front door / poverty

Smell intensity (circle one option)
Weak 1 2 3 4 5 6 Strong 7

Smell location e.g. (B,4): (1, 5)
Street name (if known):

Interesting info about the smell:
Across narrow streets “distinct noises and smells of the neighbourhood confronted the residents”

Do you know when it was?
(Please circle approximate date)
1860 – 1880 1940 – 1960
1880 – 1900 1960 – 1980
1900 – 1920 1980 – 2000
1920 – 1940 2000 – 2020

Two Centuries of Stink

Smell description:
Gushes of hydrochloric

Smell intensity (circle one option)
Weak 1 2 3 4 5 Strong 6 7

Smell location e.g. (B,4): (E, 1)
Street name (if known):

Interesting info about the smell:
Inside the saltcake furnaces in the powerhouse
overpowering

Do you know when it was?
(Please circle approximate date)
1860 – 1880 1940 – 1960
1880 – 1900 1960 – 1980
1900 – 1920 1980 – 2000
1920 – 1940 2000 – 2020

Two Centuries of Stink

Smell description:
Opening the front door / poverty

Two Centuries of Stink

Smell description:
Gushes of hydrochloric gas

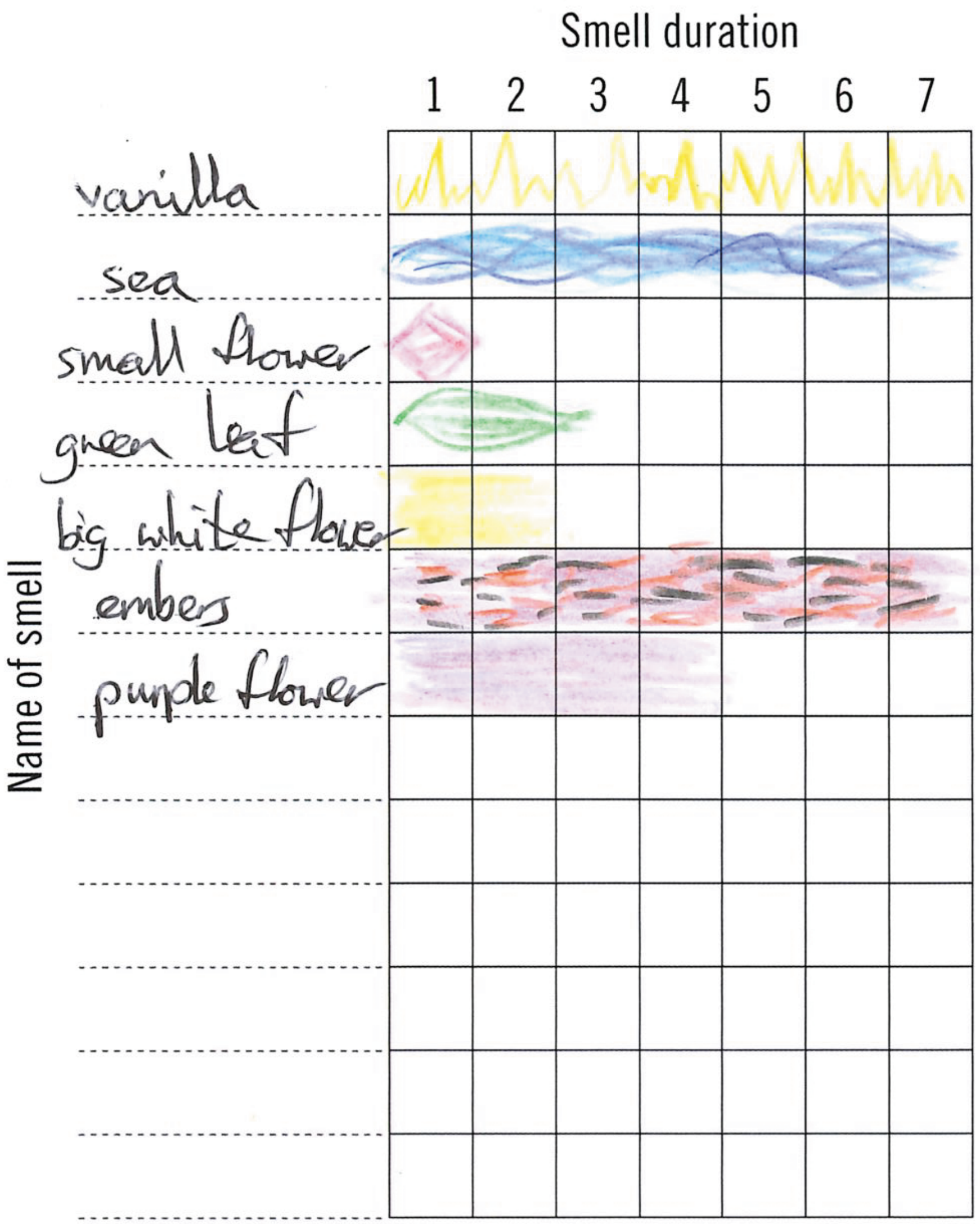


AW

SMELL VISUALISER

#smellwalk | place | 30/5

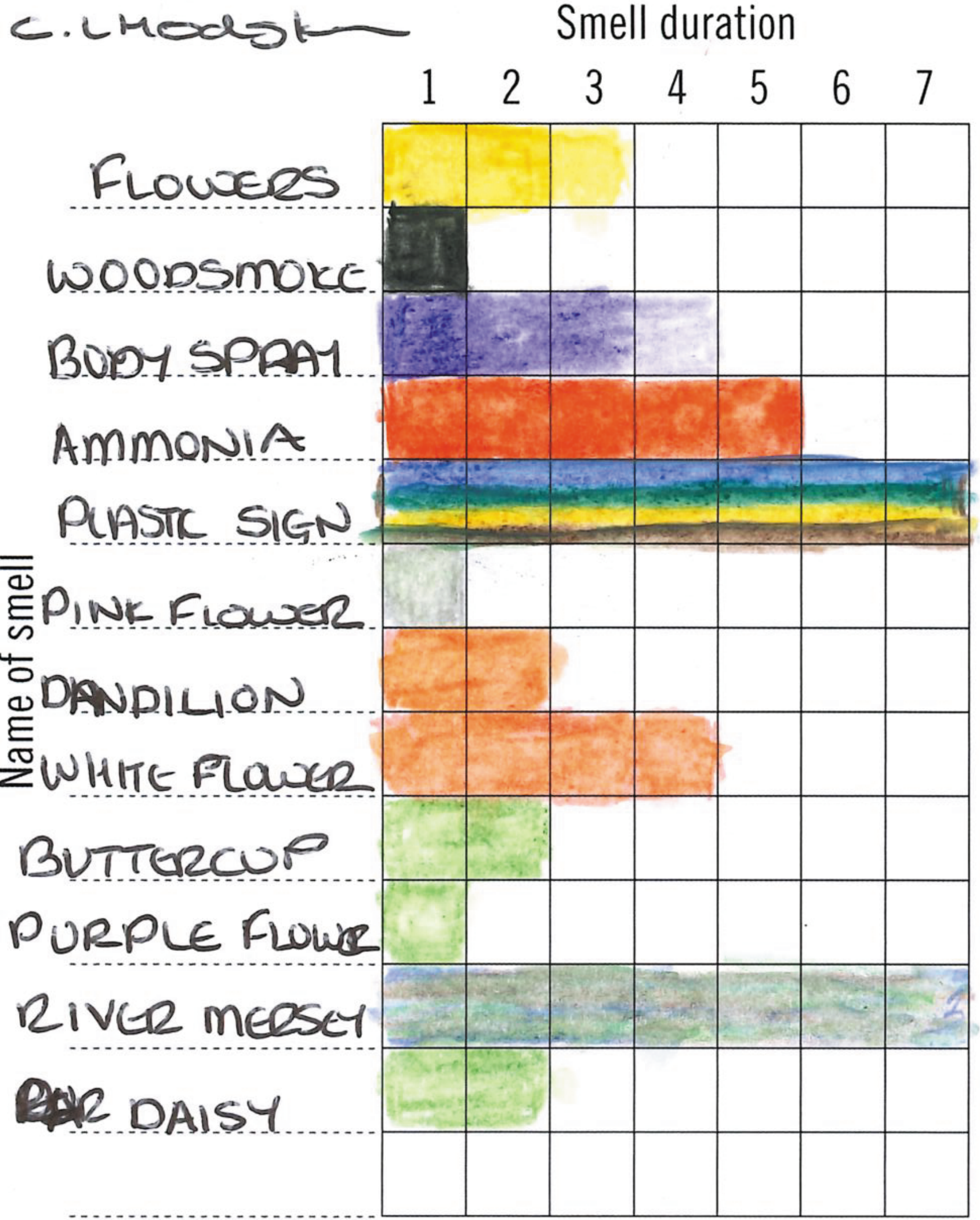
© Kate McLean 2021



SMELL VISUALISER

#smellwalk | WIDNES | 29/05/21

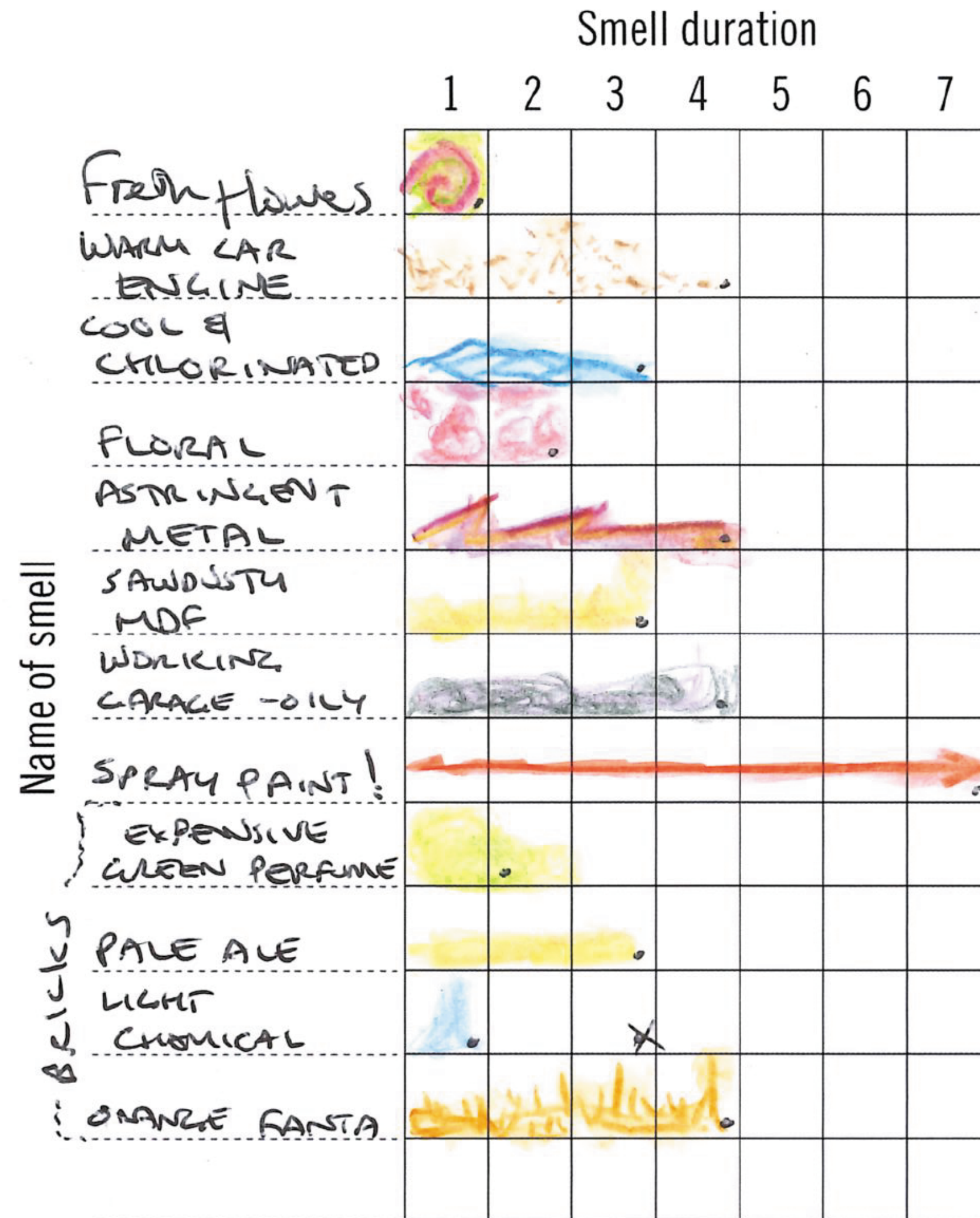
© Kate McLean 2021



SMELL VISUALISER

#smellwalk | WINDING NORTH | 30.05.2020

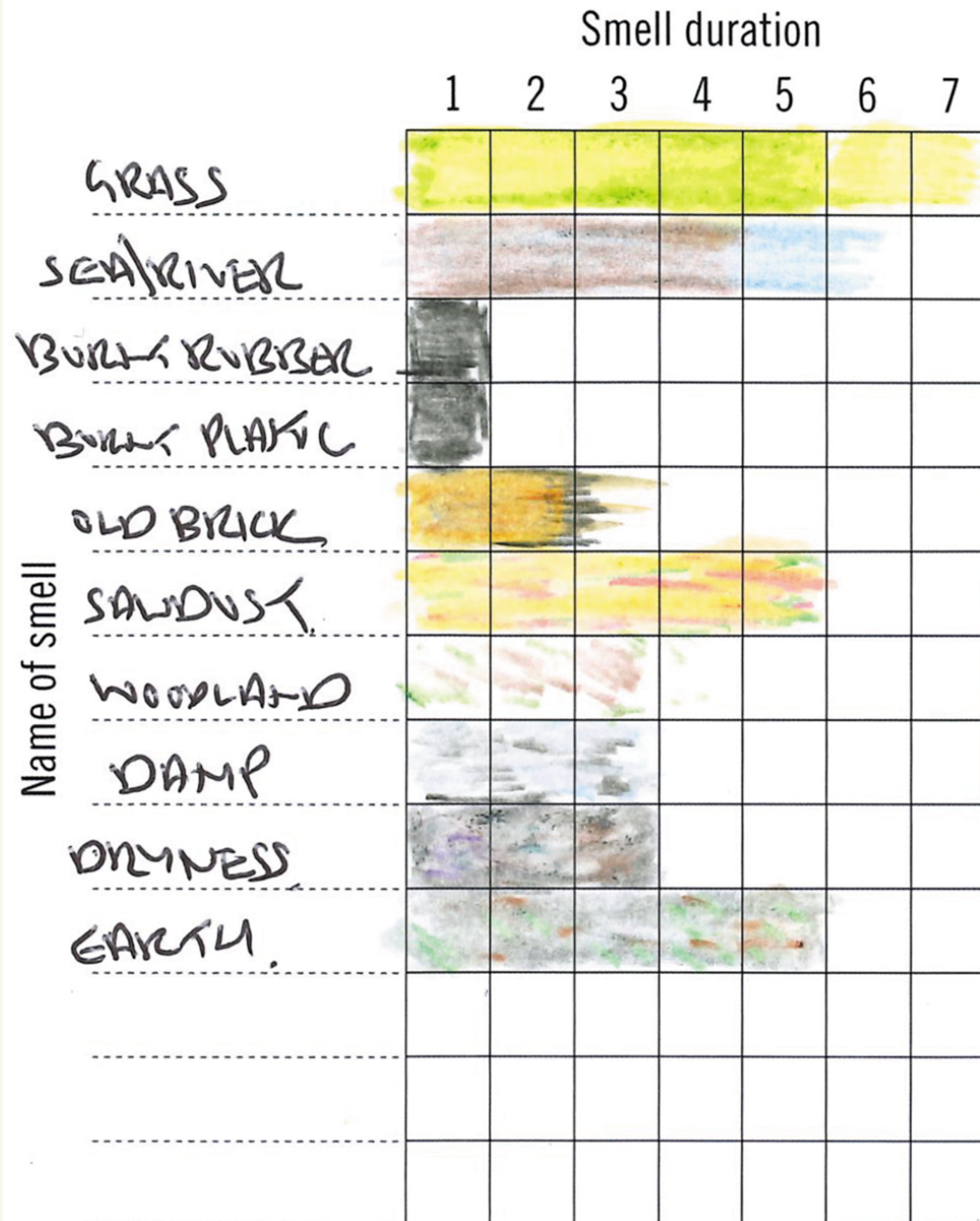
© Kate McLean 2021



SMELL VISUALISER

#smellwalk | place | date

© Kate McLean 2021



Two Centuries of STINK

Two Centuries of STINK

Two Centuries of STINK

Two Centuries of STINK

Aroma Prime (purchase option)	Smell (scientific)	Smell (from research)	Visual 1	Visual 2	Visual 3	Handling Collection / Physical Sample	1
https://aromaprime.com/cut-grass-aroma-oil/	Green leaf volatile	Grass / greenery / leaves / floral	Smellwalk photo	Smellwalk photo	Photo of the Bongs?	Plant from Spike Island?	
https://aromaprime.com/sea-mineral-aroma-oil/	Weak dimethyl sulphide (bacteria eating dead phytoplankton) plus weak hydrogen sulphide (seaweed)	Salty, muddy water	Smellwalk photo	Archive photo - swimming?	Photo barges		
https://aromaprime.com/vinegar-aroma-oil/	Acetic acid	Vinegar	Golden Wonder factory photo	Fish and Chip shop 1930s	Window Cleaning product		
https://aromaprime.com/boiled-cabbage-aroma-oil/	Stronger dimethyl sulphide (emitted as cabbage cooks)	Cooking cabbage	Street housing with front doors open	?			
https://aromaprime.com/chlorine-gas-aroma-oil/	Chlorine	Chlorine	Bleach packer	Alkali works			
https://aromaprime.com/coal-soot-aroma-oil/	??	Smog/coal smoke	Chimneys Image				
https://aromaprime.com/carbolic-soap-aroma-oil/	Carbolic	Soap	Gossages image			Gossages Soap sample	
https://aromaprime.com/urine-splatters-aroma-oil/	Ammonia	Ammonia	Outhouses - West Bank street 1880 onwards	ICI Paraquat factory			



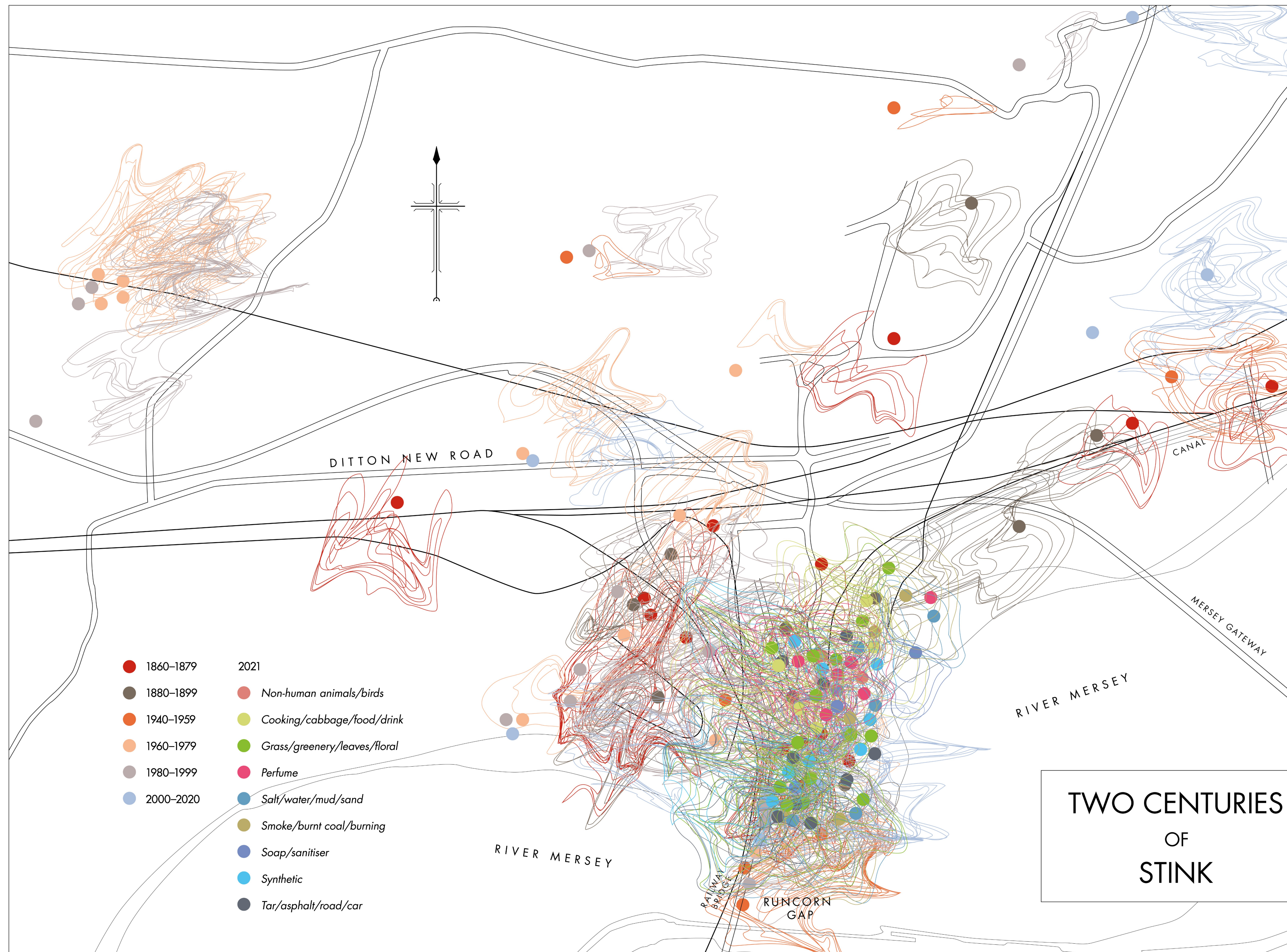
Intriguing aromas have long been a feature of life in Widnes. With the arrival of the chemical industry in the 19th century, the town changed beyond all recognition, gaining a reputation as having the deeply unpleasant “Widnes Odour”.

According to one writer, “When it comes to Widnes, it would be an advantage to lack a nose.” Though we disagree! Smell plays an important part of our unique local heritage. The social and cultural values that we ascribe to smell are an essential part of the histories of our towns and cities and reveal much about the changing lives and landscape of our community.

Led by olfactory artist and designer Kate McLean, we embarked on a quest to ‘smell map’ Widnes, to turn two centuries of stink into visual and sensory form for the first time. Beginning in Catalyst’s archives, we searched historic records for descriptions of smell. We then asked people in the community what smells they, or their families remembered, and invited them to plot these onto a map. Finally, in May 2021 we facilitated a series of smell walks where local people collected ‘nose first’ data to describe the smell of Widnes in the present. See panels 2 – 4 to follow the project and to see and smell our findings.

Two Centuries of STINK





TWO CENTURIES
OF
STINK

Interior spaces.

Hospital corridors smellscape

With “Sensing Modern Health/care Environments” network

Interdisciplinary project

Pandemic-restricted

FROM THE WAITING ROOM

- A lingering smell of food in corridors (quite a meaty smell, like cottage pie)
- Burnt chicken, or toast
- Sweaty/sticky/stale odour of a waiting room
- Non-specific disinfectant smell found particularly in hospital corridors

- Clean, like citrus
- Bleach/disinfectant used in loos
- Disinfectant wipes (sickly sweet layered over artificial flowers)
- Disinfectant
- Purell, alcohol wipes

COMBINATION

- Mix of a floor cleaner & rubber
- Rubber, disinfectant, mince and an acrid smell that cut through from the dressings cupboards

- Soap in a bowl of hot water used to find a vein for chemo
- Latex gloves
- Something sterile

FROM THE WARD

- Hot wipes
- Rubber mattress
- Welcome slices of buttered toast
- First cup of tea after general anaesthetic (cosy and warm)

FROM THE CANTEEN

- Weak insipid coffee
- Heart-sinking yet also nostalgic canteen food
- Coffee and nachos



Welcome to a virtual Hospital Corridor Smellscape

Olfactory data recalled by 27 former hospital patients, workers and visitors. February 2020.

Hospital smells are both intense and pervasive; they mingle in the corridors forming memorable but bizarre smell combinations.



FROM THE WAITING ROOM

- A lingering smell of food in corridors (quite a meaty smell, like cottage pie)
- Burnt chicken, or toast
- Sweaty/sticky/stale odour of a waiting room
- Non-specific disinfectanty smell found particularly in hospital corridors

DISINFECTANT

- Clean, like citrus
- Bleach/disinfectant used in loos
- Disinfectant wipes (sickly sweet layered over artificial flowers)
- Disinfectant
- Purell, alcohol wipes

COMBINATION

- Mix of a floor cleaner & rubber
- Rubber, disinfectant, mince and an acrid smell that cut through from the dressings cupboards

KEY TO SMELL COLOURS

PEOPLE

- Nail varnish remover
- Slightly sweet and difficult to identify; floral, leftover smell of passer-by's perfume
- Old people
- Many bodies in a space, odours from all orifices and on clothing, sheets, seats...

FROM THE OPERATING THEATRE

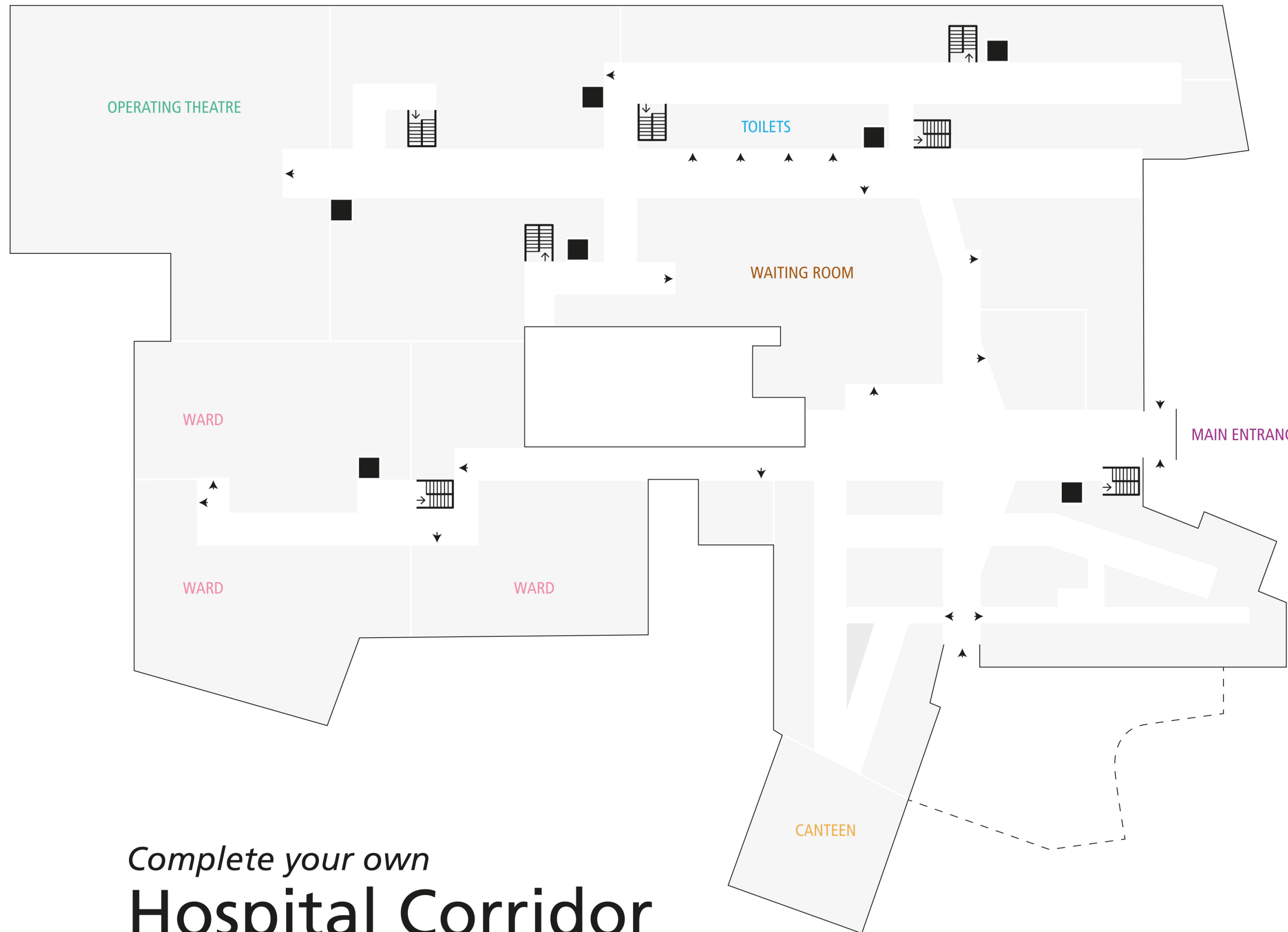
- Chemically metallic, silver and rouge – tubing
- Metallic stale blood
- Soap in a bowl of hot water used to find a vein for chemo
- Latex gloves
- Something sterile

FROM THE WARD

- Hot wipes
- Rubber mattress
- Welcome slices of buttered toast
- First cup of tea after general anaesthetic (cosy and warm)

FROM THE CANTEEN

- Weak insipid coffee
- Heart-sinking yet also nostalgic canteen food
- Coffee and nachos



KEY TO SMELL COLOURS

Complete your own **Hospital Corridor Smellscape**

Smell loss (anosmia) is one symptom of Covid-19. May 2020.

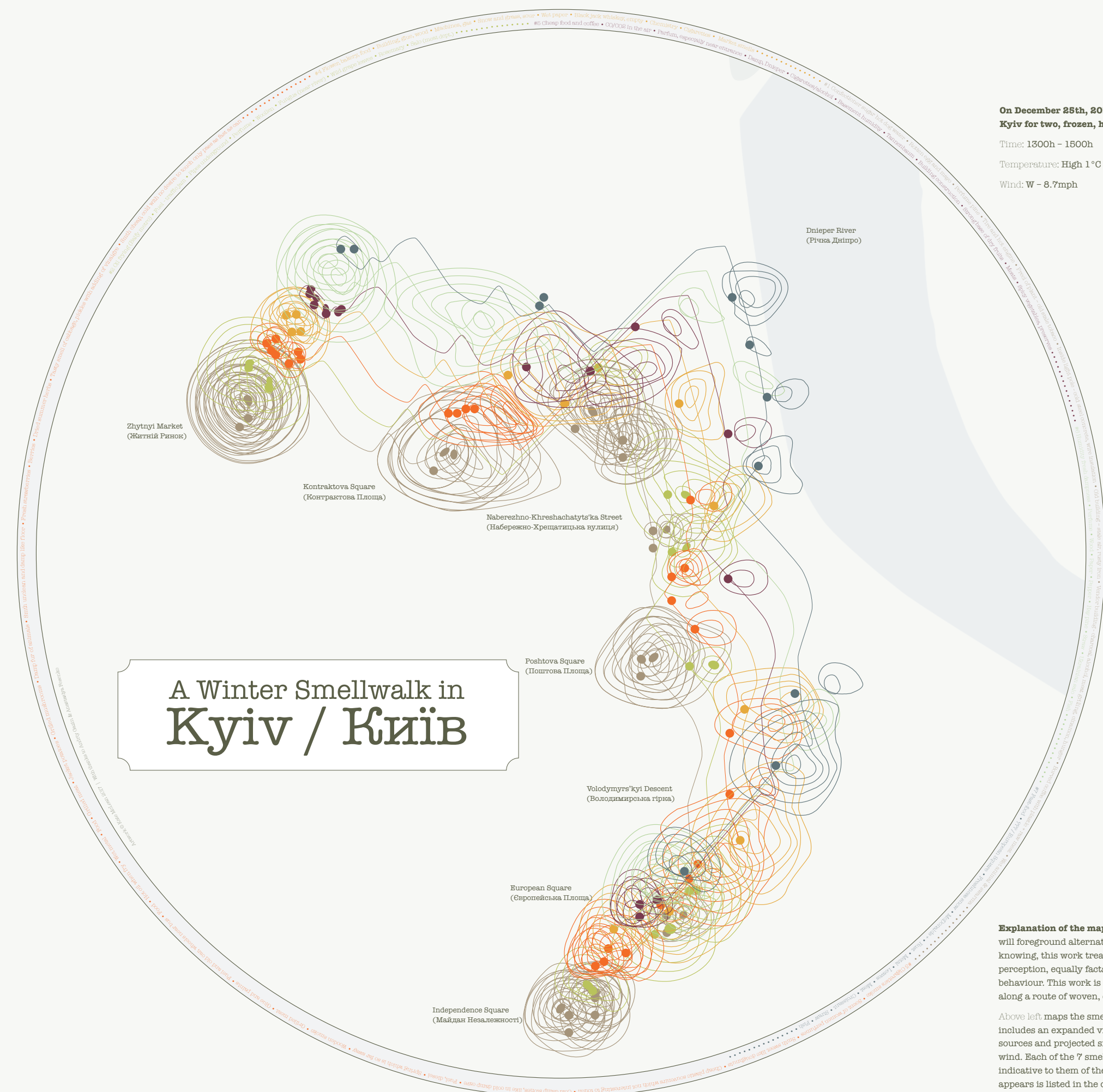
Create a map of your hospital corridor smell experiences; this may be full of unexpected odours, or symbolically left blank to represent anosmic experience.

**The smellmap is one form of
visualisation for spatiality of smell.
Designed to communicate:**

- *Smell instances (size dependent on perceived intensity)*
- *Multi-person perceptions*
- *Commonalities and differences*
- *Geolocated trajectories*

research findings

We may never experience or fully understand the smellscape from the point-of-smell of another; but mapping it in a collective manner ‘has a creative potential to reveal the unseen, ephemeral and imagined’.



On December 25th, 2016 a group of 18 people smellwalked Kyiv for two, frozen, hours.

Time: 1300h – 1500h

Temperature: High 1°C

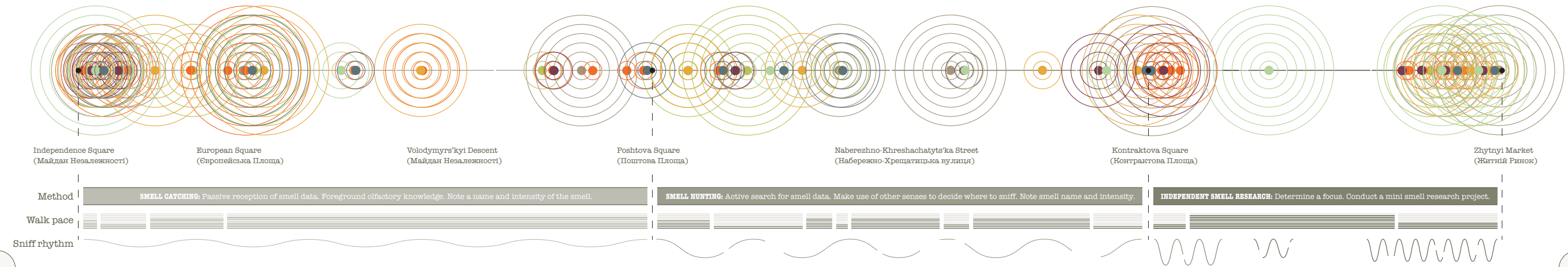
Wind: W – 8.7mph

Explanation of the mapping: Speculating that future generations will foreground alternative sensory modalities as ways of knowing, this work treats smells as affordances of visual perception, equally facts of the environment and of human behaviour. This work is a mapping of ephemeral information along a route of woven, olfactory trails.

Above left maps the smellwalk, which started at Maidan, and includes an expanded view of 7 individual trails showing smell sources and projected smell shapes in the light, westerly winter wind. Each of the 7 smellwalkers is represented by a colour indicative to them of the Kyiv smellscape. Every smell that appears is listed in the outer ring of the map.

Below marks the cumulative pulse points of smell detection along the route as it unfolds in space, time, and mode of smelling. Concentrations occur in confined spaces and at stopping points.

Pulses of smell relative to position along time-length of entire smellwalk



**Visual smellmaps are a starting point for
research, analysis and dissemination.**

**THANK YOU &
QUESTIONS**