MESTRADO
MULTIMÉDIA - ESPECIALIZAÇÃO EM CULTURA E ARTES

CHASING THE FRAGRANT SILENCE — SMELL AS A MEDIUM FOR ARTISTIC CREATION

guilherme ruivo miranda gaspar

M
2019

FACULDADES PARTICIPANTES:

FACULDADE DE ENGENHARIA
FACULDADE DE BELAS ARTES
FACULDADE DE CIÊNCIAS
FACULDADE DE ECONOMIA
FACULDADE DE LETRAS
chasing the fragrant silence — smell as a medium for artistic creation

guilherme ruivo miranda gaspar

Master in Multimedia of the University of Porto

Supervisor: Rui Penha (PhD)

July 2019
chasing the fragrant silence — smell as a medium for artistic creation

guilherme ruivo miranda gaspar

Master in Multimedia of the University of Porto

Approved in public defence by the jury:

Chair: Bruno Sérgio Gonçalves Giesteira (PhD)
External Examiner: Pedro Tudela (PhD)
Supervisor: Rui Penha (PhD)
Abstract

Why do we learn to see, but not to smell?

The five-sense division established a cultural predominance for sight and hearing above the remaining senses. In the occident, smell has had a secondary role, whereas in other contexts the relation with olfaction is indissociable from cultural and social organization. Philosophical tradition has denied olfaction aesthetic capabilities and consequently, artistic ones too. This thesis questions whether this is rather a lack of awareness, education and exploitation of the sense of smell, as opposed to an inherent limitation of the sense itself. Contemporary artistic practice, increasingly diversified in its forms of expression, sees a growing number of artists using smell as a medium.

The development of a performance, the practical component of this project, led to a personal exploration of smell as a medium, in order to clarify my own relationship with smell, and its artistic capabilities - contributing to the development of a poiesis of smell.
Resumo

Porque aprendemos a ver, mas não a cheirar?

A divisão em cinco sentidos, estabeleceu uma predominância cultural da visão e audição sobre os restantes sentidos. Num contexto ocidental o cheiro é colocado em segundo plano, noutras contextos a relação com o olfacto é indissociável da organização social e cultural. A tradição filosófica conferiu ao olfacto a incapacidade de proporcionar uma experiência estética e por consequência, artística. Este trabalho coloca em questão se se trata antes de uma falta de consciencialização, educação e exploração do olfacto, em oposição a uma limitação inerente ao sentido em si. A prática artística contemporânea, cada vez mais diversificada nas suas formas de expressão, vê um crescente número de artistas a utilizar o cheiro como meio.

O desenvolvimento de uma performance, a componente prática deste projecto, conduziu uma exploração pessoal do cheiro como meio, de forma a esclarecer a minha própria relação com o olfacto, e as suas capacidades artísticas — contribuindo para o desenvolvimento de uma poiesis do cheiro.
Acknowledgements

(...) tudo quanto é nome de homem vai aqui, tudo quanto é vida também, sobretudo se atribuída, principalmente se miserável, já que não podemos falar-lhes das vidas, por tantas serem, ao menos deixemos os nomes escritos, é essa a nossa obrigação, só para isso escrevemos, torná-los imortais, pois aí ficam, se de nós depende, Alcino; Brás, Cristóvão, Daniel, Egas, Firmino, Geraldo, Horácio, Isidro, Juvino, Luís, Marcolino, Nicanor, Onofre, Paulo, Quitério, Rufino, Sebastião, Tadeu, Ubaldo, Valério, Xavier, Zacarias, uma letra de cada um para ficarem todos representados, porventura nem todos estes nomes serão os próprios do tempo e do lugar, menos ainda da gente, mas, enquanto não se acabar quem trabalhe, não se acabarão os trabalhos, e alguns destes estarão no futuro de alguns daqueles, à espera de quem vier a ter o nome e a profissão.
(Saramago, 1982, p. 162)

Ao Alexandre, Bruno, Carlos, Diogo, Esmeralda, Fernando, Guilherme, Hugo, Inês, Joana, Leonor, Mimi, Nuno, Orquídea, Pedro, Quim, Rui, Sara, Tiago, Ulisses, Vera, Xisto, Zilia.

Obrigad
# Table of Contents

1. **Introduction** ........................................................................................................... 1  
   1.1 Motivation .................................................................................................................. 1  
   1.2 Project and Objectives ............................................................................................. 2  
   1.3 Dissertation Structure ............................................................................................. 2  

2. **Smell and Culture** .................................................................................................... 3  
   2.1 Rituals of Smell .......................................................................................................... 5  
      2.1.1 Roman Exuberance ............................................................................................... 5  
      2.1.2 Egyptian Transcendence ..................................................................................... 6  
      2.1.3 The Three Magi Gifts and Christianity ............................................................... 6  
      2.1.4 Trobriand Magic .................................................................................................. 7  
      2.1.5 Andamese Nature Cycles .................................................................................... 8  
      2.1.6 Sight in a Dense Forest ....................................................................................... 8  
      2.1.7 Serer Ndut Acidic Spirit World .......................................................................... 8  
      2.1.8 Incense and Koudou 「香道」 ............................................................................. 9  
      2.1.9 Hygiene ............................................................................................................... 10  
      2.1.10 The City of Smell ............................................................................................ 11  
      2.1.11 Artistic Movements and Smell ......................................................................... 14  
      2.1.12 Aesthetics of Smell .......................................................................................... 14  
   2.2 Olfactory Artists and Works ..................................................................................... 18  
      2.2.1 Maki Ueda .......................................................................................................... 18  
      2.2.2 Peter de Cupere .................................................................................................. 20  
      2.2.3 Paul Vanouse ..................................................................................................... 22  
      2.2.4 Oswaldo Maciá .................................................................................................. 23
3. **Chasing the Fragrant Silence** ..................................................................................................................26

  3.1 Learning Through Experiments and Experiences ......................................................................................27
    3.1.1 Changing Seasons .................................................................................................................................27
    3.1.2 Ripping a Tangerine Apart and Yoshimura .........................................................................................28
    3.1.3 A Vague Sense of Presence at Semibreve ............................................................................................29
    3.1.4 The Smell of a Forest Fire ......................................................................................................................29
    3.1.5 The Smell of Time on Matter ................................................................................................................31
    3.1.6 “How to Confuse Your Senses?” ........................................................................................................35
    3.1.7 The Seed from the Sacred Ceiba Tree ....................................................................................................37
    3.1.8 Spring Flowers in Church ......................................................................................................................37
    3.1.9 Sea Breeze ............................................................................................................................................38
  3.2 Smell Performance ......................................................................................................................................40
    3.2.1 Extracting the Smell of the Sea .............................................................................................................42
    3.2.2 Dispersing the Smell of the Sea ............................................................................................................46
    3.2.3 Preparations ........................................................................................................................................46
    3.2.4 Performance .........................................................................................................................................52

4. **Conclusions** .................................................................................................................................................59
  4.1 Future Work ..................................................................................................................................................60

5. **Bibliography** ..................................................................................................................................................61

6. **Annex A — Developed Tools** .....................................................................................................................68

7. **Annex B — Work Process** ................................................................................................................................69
List of Figures

Figure 1 — “The hierarchy of the senses across languages according to the mean codability of each domain, with the presumed universal Aristotelian hierarchy on Top. There is no universal hierarchy of the senses across diverse languages worldwide.” Adapted from Differential coding of perception in the world’s languages, by Majid et al., 2018, https://www.pnas.org/content/115/45/11369

Figure 2 — A koudou set used for the ceremony and a person listening to incense. Adapted from 日本の香り「香道」, 2017, http://yuruwashi.gr.jp/?p=113 and 香道御家流宗家 三條西堯水「香を聞く」和楽文化塾, 2011, http://www.wajuku.jp/index.php/archives/2415

Figure 3 — Paul Fürst, copper engraving, of a plague doctor of Marseilles, 1721, https://upload.wikimedia.org/wikipedia/commons/5/57/Paul_F%C3%BCrst%2C_Der_Doctor_Schnabel_von_Rom_%28Holl%C3%A4nder_version%29.png. Public Domain.

Figure 4 — “The scent of decaying human flesh and mist vapour dispersed into an empty room every half hour, similar to the daily ringing of church bells”. Retrieved from Monument, by Clara Ursitti, 2015, https://www.claraursitti.com/monument.htm.

Figure 5 — Still image from Moon. Retrieved from white night flower [preview], by Sukebeningen, 2011, https://vimeo.com/32662398

Figure 6 — Photo of Olfactory Labyrinth Ver.1 installation at ATSUKOBAROUGH. Retrieved from Flickr, by Maki Ueda, 2013, https://www.flickr.com/photos/31300603@N06/10798965144/

Figure 8 — The Madonna statue made of frozen holy water. Retrieved from *The Deflowering*, by Peter De Cupere, 2014, https://vimeo.com/109588701


Figure 10 — The Opera of Cross-pollination, Retrieved from *The Opera of Cross-pollination*, by Oswaldo Maciá, 2018, https://www.oswaldomacia.com/the-opera-of-cross-pollination

Figure 11 — The visual aspect of the installation showcasing the objects present, Retrieved from *Trilogy for Three Timbres*, by Oswaldo Maciá, 2016, https://www.oswaldomacia.com/copy-of-fables-of-the-wind

Figure 12 — Representation of the participants’ position for the forest fire presentation. I am represented in orange, on the lower right. Schematic not in scale and drawn from memory. To improve the propagation of the smells I should have taken a more central position in the table.

Figure 13 — Flower pieces macerating in oil.

Figure 14 — Asparagus "lemon" gelatines.

Figure 15 — Flowers inside Biserica Rusă.

Figure 16 — Some of the algae at the beach and the collected pieces of plastic below.


Figure 18 — A simplification of the different modes the project took. The lavender colour represents smell-objects. Top left: five distanced smells presented to the audience seating at the squares, one by one, by the performer at the larger diamond shape; Top middle: the installation designed for the church with six sources of sea smell in solid colour and the candles in outline; Top right: the circular configuration with the sea smells in the vertices of the hexagon and different smell objects in the interior, people would circulate around the objects; Bottom left: a decomposition of the circular configuration into smaller circles of specific groups of smells; Bottom right: circular configuration in two themed circles, one of the sea that evolved towards gasoline, the other of forests that evolved towards burnt smells.

Figure 19 — Repurposed plastic bottle used as a container for two piezo units. The gold dots are spaced 1cm apart. The larger line on the
bottom represents the top part of the piezo. Different amounts of water on top of this line resulted on different smoke heights.

Figure 20 — Schematic for one potentiometer regulated ultrasonic piezo with light emitting diode (LED) indicating intensity. The code used for this example is available in chapter 6.1.

Figure 21 — Water with algae infusion. On the right, the cloth used to filter the solid components out and used to mechanically express the liquid out. On the left, the bottle used to infuse the algae.

Figure 22 — A drawing of how the setup with two tables would probably look like. In the top left picture, the lines in purple indicate an imagined path to be taken by the performer.

Figure 23 — Representation of the performance space. Not in scale. On the left, four seats are represented with squares, on the right, the table with a simplification of the smell objects. The orange triangles represent the lights and their direction. The blue line represents the direction of the air flow, from top to bottom. The bottom left opening shows the entrance into the space.

Figure 24 — Ceramic resistor, visually similar to the ones used. Adapted from https://www.parts-express.com/Data/Default/Images/Catalog/Original/016-100_HR_0.jpg

Figure 25 — A moment in one of the performances.
List of Full-Page Figures

Decaying roses. 34

The table with the objects awaiting the performance. Algae, eucalyptus, cinnamon, flower petals, gasoline, matches. In this picture, the glass bottle with gasoline is behind the petri dish instead of its middle. 51
1. Introduction

Every day, every moment, through our life we are stimulated through our senses. We perceive and create knowledge about the world and about ourselves. Understanding how culture, psychology and physiology changes our idea of self can lead to a greater enjoyment of life.

This research is an exploration of smell as a medium for artistic expression, inspired by life, art, intuition and ignorant bliss. It aims, through the development of a performance, and a reflection on olfactory art and culture, to create a personal understanding of the medium. Sharing this experience is a form of thanking the world and an attempt to contribute to the development of a poiesis of smell.

1.1 Motivation

There is no particularity as to why this thesis became what it intended to be. It originates from a mixture of never knowing what to do and an overwhelming desire to learn and feel as much as possible. My parents took me to a lot of museums and concerts as I grew and I was lucky enough to travel quite a bit, so I’ve been fascinated by culture and nature since then, especially those that are culturally distant to me.

My academic path has mostly been around the multimedia realm, dealing with sound and image in their intersections with art, technology and science. Working with music shows, I have been a volunteer, coordinator, backline tech, etc. at festivals, but also as a light and projection artist. I flow through this path of overlapping sensorial experiences of light and sound out of my love for music and light but also owing to how inspired I feel when witnessing performances. I am deeply overwhelmed by the sensorial stimulus of both sound and light and that is why I have been close to those areas.

But there is more to the senses than sight and hearing. I cook almost every day, developing my sense of taste and olfaction. With cooking you have a very hands-on approach to learning, if you exaggerate on the spices, you’ll feel it first-mouth, and adapt the next time.

Some winters ago, while hanging with two friends at a local music venue I decided to open two tangerines without anyone noticing. My two friends were suddenly confused and surprised given the sudden out-of-context stimulus, something I found very amusing and
interesting. Fast-forward a few years and I find myself opening a tangerine during a presentation-performance of a piece developed by myself for a university class on digital sound synthesis. Along that same path, for a class on generative music, I developed a piece based on the ambient music works of Hiroshi Yoshimura that incorporated incense as a fundamental element of the multi-modal and immersive characteristic of that work.

This thesis and work are a perpetuation of that same path, now with a systematic approach. Working with smell comes as a process of developing my sensory-cognitive capabilities as well as the capabilities of those accompanying and surrounding me. To share with others is the goal of this thesis (and maybe of life). The performative nature of this work aims to create a conscious state upon the spectator, aware of the self, the environment and the relationship between both.

1.2 Project and Objectives

How does smell as a medium influence the creation and presentation of a performance?

Through a highly auto-ethnographic journey, the work process will reflect my values and preoccupations as an individual. The experiences made aim to create any type of awareness to the spectator’s state as a sensorial being, ecological concerns, or induce any form of catharsis, enjoyment, or happiness.

The methodological approach to this thesis questions’ will be an arts-based research. Conventional description of this method may suggest a cyclical approach to the work that fluctuates between action and reflection. I perceive the creative process necessary to artistic work as a process of discovery, as much about the topic and methods, as it is about the individual. By studying related topics and previous achievements in the field, artistic or not, the employment of this methodology pursues a better informed and more impactful work (Savin-Baden & Wimpenny, 2014).

Nonetheless, the questions may only become clear when the answers are shown.

1.3 Dissertation Structure

This dissertation is comprised of 4 chapters, the present one which serves as an introduction regarding the motivation and project.

Chapter 2, Literature Review, that overviews topics regarding smell and its relation to several aspects of culture and aesthetics.

Chapter 3, Chasing the Fragrant Silence, that makes a brief reference to the Ethos and references that precede the work. It then describes the work development in the form of experiments and reflections.

Chapter 4, Conclusions, summarizes and presents some final regards related to the development of this thesis.
2. Smell and Culture

We breathe in — air flows through our nasal passage, into the olfactory epithelium. Olfactory information from odorous molecules is transduced into electric signals by means of olfactory receptor neurons, among other cells (Purves, et al., 2001).

As elegantly put by Christina M. Agapakis and Sissel Tolaas in their paper Smelling in Multiple Dimensions (2012):

How molecules interact with the olfactory system is a complex process transforming chemical signals into neural impulses and conscious perceptions, governed by the physics and chemistry of the molecules, the genetics and structure of the olfactory receptors, the neural architecture of the pathways that interpret smells, as well as the psychological, social, and cultural context of molecules and odors.

Through our life we are constantly being stimulated. Smell, commonly regarded as the less relevant of the five classically divided senses in western culture, is nonetheless part of our means of perceiving. What Immanuel Kant dismisses as “the most ungrateful” and “the most dispensable” of senses, too “fleeting and transient” as cited by Barwich (2014), has been gaining attention and relevance in the contemporary cultural paradigm.

If the hierarchy of sensorial perception as established by Aristotelian tradition was universal, it should be reflected on the languages of the world in a similar form, as some aspects of perception would be closer to consciousness and therefore to language. Majid et al. (2018) “tested with stimuli from the five basic senses (...) to elicit descriptions in 20 diverse languages, including 3 unrelated sign languages” to see if this hierarchy was indeed universal. By comparing the feedback given within each language's individuals, they created the sensorial hierarchy based on mean codability (highest interspeaker agreement) for each language.
Figure 1 — “The hierarchy of the senses across languages according to the mean codability of each domain, with the presumed universal Aristotelian hierarchy on Top. There is no universal hierarchy of the senses across diverse languages worldwide.” Adapted from Differential coding of perception in the world’s languages, by Majid et al., 2018, https://www.pnas.org/content/115/45/11369

<table>
<thead>
<tr>
<th>Language</th>
<th>Low</th>
<th>Presumed codability of the senses</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farsi</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turkish</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dogul Dom</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sruru</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cantonese</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lao</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malay</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semai</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kikulaie</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mian</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yelli Drye</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Umpila</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tzeltal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yucatec</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zapotec</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yurakaré</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kata Kolok</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This idea of a prevalence of some senses over others, influences our ways of experiencing reality. This in turn impacts the visibility of the different forms of expression. Rancière (2004) notes that “Statements or forms of expression undoubtedly depend on historically constituted systems of possibilities that determine forms of visibility or criteria of evaluation” (p.50). It is therefore only natural that we as a western society are not equipped with the same critique capabilities to discuss matters regarding smell as we are to discuss sight or hearing. Such discrepancy rises from the cultural prevalence of certain expressions throughout the centuries paired with what art as a market and status symbol has valued throughout time. For an artistic object to be bore as a status symbol, it must be of tangible existence, for if not, there are no means of representing the social status of its possession. Smell is transient in presence, and invisible in form.

Although culturally nuanced, there is much to be inferred through smell. We may not see that the yoghurt is due, but we immediately rely on smell to make that judgement. The food leftovers may still look good but if they smell rotten, they will probably taste bad, and
Smell and Culture

it warns us, from experience and passed down knowledge that its best not to be eaten. Our sense of smell can even lead to progress in the medical sciences. Joy Milne, a hyperosmic individual\(^1\), discovered she could detect Parkinson disease by odour alone by noticing a change in smell in her husband, 10 years earlier from him being diagnosed (Quigley, 2019). Upon further investigation, distinct volatiles for Parkinson disease were found in human skin sebum (Trivedi, et al., 2019). This discovery, although not a cure, could be crucial in alleviating the life of those connected to Parkinson.

Smell has this power of transporting us through time and space, a familiar experience to many people. The hippocampus, an essential part of the brain for the representation of spatiotemporal contexts in relation to sensorial stimulus, is crucial in the formation of episodic memory (Aqrabawi & Kim, 2018). The common evolutionary history of the olfactory cortex and the hippocampus lead to a “what-when-where” memory formation associated with olfaction. “These odor engrams integrate the exact place and time a particular smell was woven into a unique neural tapestry that holds distinctive what-when-and-where smell memories.” (Bergland, 2018). Aqrabawi and Kim (2018) research also advances our knowledge towards a better understanding of Alzheimer, as one of the first symptoms is the loss of smell-based memory in humans and the early brain degenerations coincide with the areas necessary for the formation of these memories (Bergland, 2018). I recall moments when a sudden smell transported me to very specific situations, sometimes not at all related to the current situation I was in. Smell has vividly transported me to the apartment I once stayed in with my family in Rome several years before and, as I walk into my grandma’s kitchen at night, I feel the smell of the yoghurt cake she used to make when we went to visit her.

2.1 Rituals of Smell

There are and have been many cultural perspectives regarding smell (in the broadest sense of the word), encompassing the political, economic, social, religious, etc. spheres. Even within western society the perspectives and methods changed with the passage of time.

2.1.1 Roman Exuberance

Romans enjoyed fragrant dinner parties and parades, endowed themselves with floral and perfumed crowns, garlands and garments to bestow upon themselves the essence of divinity (Griner, 2010). Not only did this flowery aromatization of the air protect the homes from negative spirits, it was also expected that social events would present as such, displaying exotic atmospheres and gifting the guests with flowers (Pepe, 2000).

---

\(^1\) hyperosmia – a heightened sense of smell.
2.1.2 Egyptian Transcendence

Egyptians employed the ritualistic usage of smells too. For the Sun God "Every day they make a triple offering of incense to the Sun, an offering of resin at sunrise, of myrrh at midday, and of the so-called cyphi at sunset;" (Plutarch, 1936, p. 127). Cyphi, or as more commonly known (as inferred from the results from search engines), Kyphi (the Latinised version of the Greek translation for Kp.t). Kyphi was a concatenation of ingredients used in the form of incense, whose preparation was highly ritualized and transcendental in nature as they were "compounded, not at random, but while the sacred writings are being read to the perfumers as they mix the ingredients." (Plutarch, 1936, p. 187). Plutarch further relates the burning of each specific type of incense to the nature of the used materials in each of the three moments and the perceived composition of air at the time.

(...) resin and myrrh result from the action of the sun when the trees exude them in response to the heat. Of the ingredients which compose cyphi, there are some which delight more in the night, that is, those which are wont to thrive in cold winds and shadows and dews and dampness. For the light of day is single and simple, and Pindar says that the sun is seen "through the deserted aether." But the air at night is a composite mixture made up of many lights and forces, even as though seeds from every star were showered down into one place. Very appropriately, therefore, they burn resin and myrrh in the daytime, for these are simple substances and have their origin from the sun; but the cyphi, since it is compounded of ingredients of all sorts of qualities, they offer at nightfall. (p. 189-191)

Even in death smell played an important role. In their after-life belief, the God Anubis would sniff the mummy and only let the pure move on to paradise. As such, sweet-smelling herbs and plants would help the deceased, removing the smell of death and purifying the corpse (Hill, 2016). In some cases, remnants of the smells are still detectable to this day (Pepe, 2000).

2.1.3 The Three Magi Gifts and Christianity

As the story goes, Jesus was gifted by the Magi two fragrant items out of three gifts – myrrh and frankincense. Theologists from the middle-ages came to attribute to these gifts a prophetical symbolism derived from the characteristics of the smells, Myrrh means bitter, as was the life of Jesus (Verbeek, 2018c), but the gifts themselves were perceived as valuable items.

Early Christian values differentiated themselves from the luxurious practices of the roman empire, denying their "sensual lust". Nonetheless, smell still held a heavy symbolic
Smell and Culture

and financial value, fit to gods and mighty rulers. As Caro Verbeek states in her blog post You See More with and Olfactory Gaze: the Fragrant Dimensions of the Adoration of the Mystic Lamb by Van Eyck (1430 – 1432) (2018d):

Any offering to God in the Bible, is always a burnt offering, no matter if they are animals, or fragrant resins. Only when smoke rises ‘per fumum’, it can reach the nostrils of the divine being (beings in ancient cultures). Smoke transcends the material into immaterial matter and ‘pleases God’.

2.1.4 Trobriand Magic

The natives of Trobriand Island in British New Guinea, as of 1929, had a complex social dynamic that took smell and its relation to cleanliness, love and moral into high regard. The ultimate insults and moral deviations would all deal with excrement as it should play no part in the proper conduct of an individual. In the usage of magic smell plays the most important of roles. As Malinowski (1929) observed:

Indeed, the sense of smell is the most important factor in the laying of spells on people; magic, in order to achieve its greatest potency, must enter through the nose. Love charms are borne into the victim on the scent of some spellbound aromatic substance. In the second and very dangerous stage of sorcery, the object or compound over which black magic has been done is burned, and the smoke enters through the nostrils into the body against which it is directed and causes disease (silamt). For this reason, houses are never built on piles in the Trobriands, as it would greatly facilitate this stage in the sorcerer’s work. Thus the idea of magical infection through the nose exercises a considerable influence on the culture of the natives.

The malignant witches (mulukwausi) are believed to emit a smell reminiscent of excrement. This smell is much feared, especially by people who are sailing, for witches are very dangerous on water. In general the smell of ordure and decomposing matter is thought to be noxious to human health. (p.449-450)
2.1.5 Andamese Nature Cycles

The Andamese Islanders associated smells with the cyclicity and spirituality of nature. As of 1906, they had a calendar system based on the succession of blossoming plants, where the smells would announce the arrival of the different parts of the year. The first menstruation came with a name change to one of the blossoming flowers at that very same moment — a name bore till the first child was birthed (Radcliffe-Brown, 1922, p. 119), as fruit bearing plants.

They also attributed to smell an important role in their belief system. The natives believed in the necessity of the use of “odu clay after eating because their bodies give off an odour which would attract the spirits if they did not paint themselves.” for they “see in this odour given off after eating, a manifestation of the energy that has been absorbed with the food” (Radcliffe-Brown, 1922, p. 312). Smell was also responsible for disease and healing, warding off animals, spoiling food and changing the weather, among other effects.

2.1.6 Sight in a Dense Forest

Habitational context is relevant enough to shape sensorial prevalence. The density of the forest invalidates sight as the primary orientating sense. As odours abound in the dense forest atmosphere, so should the usage of olfaction, as exemplified by the Umeda of New Guinea, and the Desana of Colombia (Classen, Howes, & Synnott, 1994, p. 98).

2.1.7 Serer Ndut Acidic Spirit World

As described by Classen, et al. (1994) many societies developed complex osmological systems (olfaction-based cosmologies), explaining the cycles of life and social dynamics, from ritualistic to organizational, in relation to their perception of smells and the characteristics of their sources. The Serer Ndut of Senegal, consider, in their olfactory classification system, spiritual beings to be Acidic.

The explanation for this association comes from the fact that the Serer Ndut employ the acrid smoke of certain acidic-smelling plants to chase away snakes, which are associated with the spirit world. The acidic odour of some of these plants is, indeed, so strong that it can cause a person to faint. Such odours may be used by the Serer Ndut to assist a person who is in a coma to die by chasing the spirit out of the body. These associations are apparently so potent that they have had the effect of permanently scenting the Serer Ndut spirit world with an acidic and acrid odour. (Classen, Howes, & Synnott, 1994, p. 104)
2.1.8 Incense and Koudou 「香道」

Incense, in the western used of the word, is usually associated with materials in the form of a stick that, through direct burning, release fragrant smoke. There are many usages for incense e.g. aesthetics, meditation, therapy, ceremony, odour masking, repelling insects, time keeping, etc. (Incense, 2019). Using different materials, recipes and shapes, they accompany the development of different cultures throughout the world and time. The materials used in some recipes became highly coveted, promoting economic development but also disputes over land and control of the incense trade routes, as was the case with frankincense (Middle East Institute, 2018).

One of the three major classical arts of Japanese culture, along with tea ceremony and flower arrangement, is the incense ceremony — Koudou. Literally translated as the way of the fragrance, koudou is a path to spiritual and sensorial awareness through focused acts of smelling.

It may seem to be all about the sense of smell, but the secret of kodo is in "listening." The participants don’t “smell” (the Japanese verb 'kagu') the incense or fragrant wood, but rather "listen" (kiku) to it, opening up not so much their nasal passages as their heart and spirit. (Japan Zone, s.d.)

As with similar Japanese rituals and aesthetics, Koudou developed into a formalized refined art, performed according to certain rules and manners.

No longer an innocent pastime, Koh-Do prevailed beyond the samurai and court class. As intellectual people such as writers, artists, affluent merchants and landowners started to adopt its formalities, incense exerted a great influence on calligraphy, literature and tea ceremony, occupying a precious position as an intangible and spiritual asset of the time. (Nippon Kodo, s.d.)

Koudou is both an opportunity to improve your well-being, through mindful awareness, but it is also a game. The incense guessing games, the Kumikou, are the games played during the incense ceremony. There are several variations of games in existence, often based on seasonal themes, history, classic literature, poetry, or travel (Incense Making, s.d.).

---

2 I write 香道 as koudou （こうどう） as it is the direct transliteration of the word. It may appear elsewhere as koh-do, kodo, kōdō.
One such game is the Genji-kou, in reference to the literary classic, Genji Monogatari. Five packages, of five kinds of agarwood are prepared, shuffled and chosen at random to a total of five. Turn by turn, the participants try to distinguish between the fragrance’s characteristics, kinds, and order, smelling each only once. Reflecting on their experience, paying attention to each smell’s nuances, the participants draw one of 52 patterns possible. These patterns, composed of five vertical lines, represent the relationships between the smells. If any of the smells were the same, they would be drawn connected through a horizontal line. The drawing then would be matched to a Genji Monogatari chapter’s name and written accordingly (Shoyeido Incense Co., s.d.). Although of a larger complexity than other kumikou, it becomes obvious from this example that, to become proficient in this type of experience, there needs to be an acute awareness and understanding of smell if mastery is desired.

2.1.9 Hygiene

Hygiene is deeply connected with the sense of smell. Modern society and its search for cleanliness has put the smell of the body in a state of permanent undesirability. Even if we do not wear perfume (a ritual in itself), the products we use for self-care are commonly of an odorous nature, be it from the intrinsic characteristics of the constituents or added by its creators. We may not smell like the deodorant, but if we smell like sweat, we are at fault towards society. Curiously enough, while some self-tending rituals are socially accepted, applying deodorant on a public space is not usually one of them, probably because it makes the other aware of the bodily manifestations.

Japanese smell artist Maki Ueda perfume art piece called *eau de parfum PERFECT JAPANESE WOMAN* (Ueda, 2008), explores the smell imaginary of the idealized Japanese women. Juxtaposing traditional smells relating to cultural aspects and Japanese expressions with the idea that there is a template for womanhood, Ueda extracts several smells to create her composition. One of such smells is soap, about which the artist says:
Smell and Culture

- the scent of pureness and cleanness -

One of the most important morning rituals for Japanese high school girls is to wash their hair just to scent the hair with the smell of shampoo. If you don’t have time to take a shower in the morning, you can scent your hair and your body with this perfume: the smell of the soap. Japanese men prefer women that represent pureness and cleanness. Don’t worry if you aren’t. This perfume will also emphasize the attractive contrast in yourself.

* Japanese people like the smell of soap very much. Women often purchase perfumes that smell like a soap.

2.1.10 The City of Smell

A city's smell experience reflects the events and activities there practiced. If an industry or tradition develops, and it has a specific smell profile, it will become part of the spatial and temporal experience of the region. In Aveiro, Portugal, a region called Cacia is known for its intense smell. Due to the presence of paper paste production factories, which emit sulphur containing gases, the area is enveloped in a characteristic and easy to detect heavy smell (Gromicho, 2015).

This urban experience can come from not-so-macro sources of smell. Walking down the street we are confronted by the exhaust coming from vehicles, the smell of coffee and freshly baked bread, the urine and vomit from last night partying, the perfume of someone crossing our path, the gardens we cross, the restaurants we pass, the changing seasons, tobacco, the sea breeze if we live close by, trash piles, etc.

Food also plays a major role in the urban smellscape. We tend to associate specific food smells with cultures, Masalas with India, cumin with the northern region of Portugal, Minho, etc. This is as much a consequence of tradition and history as it is of geography, climate and what animals and plants are sustainable in a given place. The Portuguese establishment of the sea route to India had a huge influence in the prices and availability of the spices (terminus-trantor, 2018), which in turn would influence their usage in foods.

Ancient cities would have a smell profile of their own. Street foods being cooked, fish market with rotting smells, public latrines full of excretions, tanneries with their strong smells, incense from processions, fragrances oozing from gardens and temples, sweat and

3 smellscape is the landscape of smells (akin to how soundscape relates to sound)
oils from the gymnasiums, all made up the olfactory profile of a city (Classen, Howes, & Synnott, 1994). Urban organization of the cities impacted and was impacted by the smells of the trades (mikedash, 2016).

Medieval city life was accompanied by intense smells, where the mud roads would mingle with the waste, putrefaction and excretions of the city, a problem that would only grow as society moved towards the industrial revolution. The black plague doctor wore a characteristic attire that came in response to the belief that bad air was responsible for disease — the miasma theory. In its bird like beak, they could accommodate aromatic materials like rose, carnation, mint, spices, and camphor to avoid getting ill by covering the malignant smells (Kydd, 2018).

Sometimes, smell becomes so overwhelming that it can engulf a city and propel response and change. The Great Stink of London, in July and August 1858, saw the hot weather intensify the smell originating from untreated human and industrial waste accumulated on the banks of the River Thames. It affected many aspects of life, including the political endeavours (UK Parliament, 2014):

Due to the proximity of the building to the waterway, work in the Houses of Parliament was severely affected by the ensuing smell, to such an extent that curtains were soaked in chloride of lime to suppress the ‘noxious stench’ and the possibility of moving business to either Oxford or St Albans was considered.

Fearing the bad airs would cause disease spreading, the solution came through structural change to the sewage system, designing a system that is still active in the 21st century (Great Stink, 2019).

Only through a better understanding of disease spreading mechanism and proper healthy living conditions did the cities change and with them the perspectives on personal hygiene. Smell allows us to experience the nuances of a culture as it reflects its life by day and night. It is also a reflection of the social-economic differences of its people.

Smell continued to perpetuate the misunderstanding and separation of the classes since the poor continued to live in worse conditions than their richer counterparts, deprived of the proper sanitary rituals. As living conditions and education improved for the middle and working class, perfume became less relevant as it was no longer needed to cover bad smell and its usage was deemed counterproductive to bathing. The clash of the classes paired with the despise of the aristocracy in historical events like the French Revolution accentuated the rejection of perfume. With the advent of the modern world, normalized, fast-paced and technological, there was no place for smell. The cinema overpowered flower shows, and smell became progressively reduced to private life (Classen, Howes, & Synnott, 1994).
Figure 3 — Paul Fürst, copper engraving, of a plague doctor of Marseilles, 1721, https://upload.wikimedia.org/wikipedia/commons/5/57/Paul_F%C3%BCrst%2C_Der_Doctor_Schnabel_von_Rom_%28Holl%C3%A4nder_version%29.png. Public Domain.
2.1.11 Artistic Movements and Smell

Even though the European history of smell was ever changing, where the ritualistic aspects tended to disappear, and the artistic world further developed without it, a smell consciousness and imaginary perdured.

Flowers (and plants), with their symbolic interpretations have, in painting, been used as visual metaphors both for their meaning and as references to their smell. Caro Verbeek has a very interesting analysis of Botticelli’s Primavera, explained by the sense of smell. She deconstructs the relation between symbol and smell, revealing how aware Botticelli was of this dynamic (Verbeek, 2018b).

Very similar things are evident in writing, full of metaphors, symbols and detailed descriptions. Realism saw by the words of Balzac’s (1834) Le Père Goriot, for example, meticulous characterization of olfactory ambiance of a Parisian boarding-house. This tendency to use smell as a symbolic or representational vehicle continued, adapting to the different artistic movements and carrying a synesthetic role of paired senses and perceptions.

The futurists had, since their very inception, an artistic focus on scent. The Futurist Manifesto (Marinetti, 1909), states “The scent, the scent alone is enough for us beasts” as translated by Caro Verbeek (2018a). Scent, allowed for a different type of knowledge, more intuitive and aware. This also conflicted with the ocular centric perspective of the bourgeoisie (Verbeek, 2018a), despised by the Futurists as a manifestation of their rejection of the past.

Smell has accompanied the cultural life throughout the centuries – moving in and out of fashions, from sensual to sacred, from rich to poor, from highly regarded to despised, and from perfumed to sanitized. In the creative world it is witnessing a resurgence in the many contemporary forms of expression available. Aesthetic discussion concerning smell becomes therefore a progressively relevant one, as its presence in the cultural paradigm expands.

2.1.12 Aesthetics of Smell

Due to cultural tradition and prevalence of certain aesthetical perspectives in art, the lower senses of smell, taste and touch have prevailed under the weight of sight and hearing. Common arguments regarding the invalidity of smell refer to its supposed incapacity to portray beauty and its relation to knowledge procurement through reason, the sensuous nature of the experience which highlights the bodily sensations instead of the perceived object and the derived reflective statement, its evanescence and therefore unavailability to be perceived continuously, and the lack of structure which in turn impacts the perception of meaning (Shiner & Kriskovets, 2007). There is also the traditional way to understand the senses as a five-fold division, which is an overly simplistic vision on perception.
Smell and Culture

This philosophical tradition has been perpetuated by Aristoteles, Aquinas, Descartes, Hegel, Kant, Scruton\(^4\) and others. It appears as though the common disregard stems from a lack of knowledge on the properties of smells, a moral high-ground regarding sight, paired with a rejection of the bodily experience as a legitimate form of knowledge acquisition and expression, and a cultural landscape that invested on the proliferation of sight and hearing as the *de facto* senses.

To experience reality, is to experience with all the senses available, as a continuum. Ursitti, in her interview for *The Phenomenology of Olfactory Perception* (Art & Research, 2008), talks about a lecture she attended where:

> the social anthropologist David Howes suggested that Western aesthetics separates the senses as it is unable to cope with the body, and that the whole history of the museum is about the sanitation of aesthetic experience, through this separation of the senses. We can't touch works of art, for example, and they are in this pristine space where we are supposed to not be distracted by the 'other' senses in order to contemplate them at a distance. He went on to suggest that Eastern aesthetics, by contrast, is synesthetic or cross modal, and he feels that this is a better model for understanding the senses.

The metaphorical usage of language to describe an experience brings out this sensorial overlapping of reality. Vocabulary available to discuss smell may appear at first as less developed than that of other senses but there are still descriptors developed by perfumers, psychologists and chemists to characterize smell (Agapakis & Tolaas, 2012). This should not delegitimize the aesthetical discussion regarding smell although it may make the articulation of the discussion more difficult (Shiner & Kriskovets, 2007). Nonetheless we use as much visual and sonic vocabulary to express one another, along

---

\(^4\) *Aristotle’s De Anima* (350 B.C.E) and the five senses’ division; *St. Thomas Aquinas* with his relation of art, beauty and aesthetic exclusivity of some senses “Those senses chiefly regard the beautiful, which are the most cognitive, viz., sight and hearing, as ministering to reason; for we speak of beautiful sights and beautiful sounds. But in reference to the other objects of the other senses, we do not use the expression beautiful, for we do not speak of beautiful tastes, and beautiful odours” (Aquino, 1945); *Renes Descartes* (1998) and sight as “the noblest and most comprehensive of the senses”; *Georg Hegel’s Aesthetics Lectures On Fine Art* (1975) where “the sensuous aspect of art is related only to the two theoretical senses of sight and hearing, while smell, taste, and touch remain excluded from the enjoyment of art.” (p. 38); *Kant* (Critique of Judgement, 1914) and smell’s overly subjective experience; *Roger Scruton’s Beauty: A Very Short Introduction* (2011) claiming smell is “insufficiently intellectual to prompt the interest in beauty” (p. 21);
with the other senses. A sound can be chilling (cold), a colour can be hot, something may taste green, a smell can be round, and so forth.

Shiner (Art Scents: Perfume, Design and Olfactory Art, 2015) discusses Scruton’s critique of smell as only capable of conveying meaning through association by elaborating on the creation of a perfume by Jean-Claude Ellena. Shiner states that many perfumers attempt to go beyond this association or exemplification by expressing feelings evoked by experiences. *Un jardin en méditerrané*, released by Hermès in 2003 and designed by Ellena, attempts to recreate the poetic memory of an aromatic garden in Tunisia.

On a visit to an aromatic garden in Tunisia one day, he watched a young woman tear a fig leaf and sniff it with pleasure and on his return to France, he attempted to create an olfactory equivalent of his experience.

Such expressive attempt is much like that of painting, writing or composing. It is derived from an intention of evocation by means of a creative approach, created consciously with emotional and creative intent. Not a copy created by means of chemical analysis but a creative act of evocation. The experience of the garden is reflected in the internal structure of the perfume, transforming the associations into the experience of the garden.

Perfume making is, in its essence, an act of consciously organizing elements according to a structure that relates to the volatility of the compounds present, paired with the intention to achieve a determined wearing experience. This is enough of a refutation of the claim that smell cannot present structure. Perfumes are commonly presented as having a pyramidal structure, composed of base, heart (middle) and head (top) notes that, through time, due to their inherent volatilities present the complete composition. Despite being the most commonly presented structure there are other forms such as the chypre that "like a musical sonata, has a clear progression of themes, from elegantly sour to resinous/sweet, down to mossy/earthy, but all work together in simultaneous harmony, becoming more than the sum of their parts." (Vosnaki, 2012).

Foul smells can create equally valid experiences although of a more provocative nature. By confronting the audience with the use of malodorous substances the Dadaists and Futurists sought a rupture with the status quo – the avant-garde versus the disinterested public, the transgressing of the aesthetic conventions and creating a state of conscious presence. This conscious presence can be exploited to convey meaning through a very visceral and intense experience as the ones smell allows (Drobnick, 2018). Clara Ursitti’s 2015 work, *Monument*, commissioned for the exhibition *The Smell of War*, in remembrance of the 100th anniversary of the gas attacks of the first world war (De Cupere, 2015), explores this visceral aspect of smell to transmit the atrocities committed. As the artist’s website states, “The scent of decaying human flesh and mist vapour dispersed into an empty room every half hour, similar to the daily ringing of church bells.” (Ursitti, 2015). This formless presence seemed to exude from the very building it was lodged in, evoking the repurposing of buildings for war related uses, such as hospitals, refuge and morgues (Drobnick, 2018). The ringing of the bells, also relating to the church’s announcement of
the deceased and the continuous life taking of war on a steady rhythm. Derived from its ephemeral and embodied experience the ambiance of war is brought upon the smeller creating an intense experience, whereas a common statuary monument, distanced by time and the stillness of the representation, creates an ‘immunity of detachment’ as says literary scholar Scott J. Juengel, cited by Drobnick (2018).

Figure 4 — “The scent of decaying human flesh and mist vapour dispersed into an empty room every half hour, similar to the daily ringing of church bells”. Retrieved from Monument, by Clara Ursitti, 2015, https://www.claraursitti.com/monument.htm.

The ephemeral nature of smell, despite all the challenges it presents for the perceiver and the artist, is merely a consequence of the medium. This intrinsic characteristic, as seen in the above example, can be exploited in favour of the message to be transmitted. Life is ephemeral and so is everything else.

All stimuli are ephemeral as their manifestation ceases once the source is no longer present. Although I haven’t pondered much on the differences between smell and sound, regarding their sources, it seems to me that technology has facilitated the access to sound as a repeatable medium in a massive scale. It could be argued that a mass-produced perfume shares some similarities to a recorded sound, as it allows for repeated usage. When thinking about performative or artistic usages the technology isn’t so apparent or established in smell as it is in sound. This hasn’t stopped artist and developers from being
inventive and creating tools suited for their needs. Maybe all you need sometimes is a well-placed fan.

These challenges also extend over to the display and curation of olfactory works. The modernist white-cube ideal of an exhibition space is a consequence of the visual predominance of the art world. The trans-corporeal essence of smell as a medium, forces the user to be in contact with the work whereas sight allows for a distanced and detached contemplation. The body has no choice but to trespass the spectator barrier as the air itself is necessary to its survival. Hsu (2016) observes that, if the air of the museum is used as the aesthetic medium “and highlights the manifold ways in which our bodies literally incorporate that air, olfactory art is especially effective in dramatizing airborne environmental risks.”. It is also an effective means to put the body back into the visual, attempting to reduce the distancing, colonizing and voyeuristic gaze (Art & Research, 2008). To contaminate the pristine white cube with the body is to make evident the odorous exudations that our natural bodies emit refuting, the hygienic, sanitized and elitist museum space (Drobnik in Art&Research (2008)).

2.2 Olfactory Artists and Works

This sub-chapter presents some contemporary artists that reflect upon and/or use olfaction as an expressive element to their works. As I've never seen, or smelled, any of the works here present, it should be noted that my relationship with these pieces is one of distant appreciation, be it emotional or intellectual.

2.2.1 Maki Ueda

2.2.1.1 Sukebeningen

Sukebeningen is a triptic of performances that revolve around themes of eroticism and cultural aesthetics and nuances. The performances are named The Tattooer, Moon, and Shijuhatte. The second, Moon, is a multi-sensorial experience explored in the form of an erotic dance performance.

The concept of this work is an installation of kehai, a Japanese word which means 'a vague sense of the presence of something'. When one perceives or becomes aware of an indication that somebody/something exists around him/her, many faculties of senses contribute to pick up that. (...) The auditorium is in complete darkness, suppressing the sense of sight, and making other modalities more sensitive. The seats in the auditorium are arranged with intervals, through which the dancer will dance, keeping an intimate proximity to the audience. (Ueda, 2013b)
The dancer wears a perfume on her body enhancing her *kehai* as she moves through the auditorium. The scent, designed by Maki Ueda, an olfactory artist, is that "of a flower that blooms at night to attract moths" (Ueda, 2013b). The movement, the proximity with and without touch, the idea of a sense of presence, and the flower that attracts moths, all are intimately connected with the erotic nature of the work.

This idea of extending the presence of the body, establishing a connection before there is a physical one, highlights the air-borne nature of the sense of smell. Through the expanded bodily volume, the physical boundaries of the dancer dilute into the environment. If smell is part of the self where exactly does the limit lie.

A dialogue of intimacy in the darkness of the auditorium, reflecting the erotic sensibility of those involved and thus, their different cultural aesthetics (sukebeningen, n.d.).

Figure 5 — Still image from Moon. Retrieved from *white night flower [preview]*, by Sukebeningen, 2011, https://vimeo.com/32662398

### 2.2.1.2 Olfactory Labyrinth Ver.1

Olfactory Labyrinth Ver.1 is the first iteration of a smell installation that explores the spatial, all-around experience of olfaction. Bottles containing fragrant oil are suspended in a grid configuration, hanging from the ceiling with candle rope, progressively occupying the space as the oil is absorbed. The smell, felt from a 20cm distance, can be experienced by walking through the grid spacing, 40-50cm wide. Three different smells were used and placed in a way that form bottle to bottle, you can follow the smell in a line or cluster, a playful experience (Ueda, 2013a).
I tried to exclude visual and audible aspects in this work as much as possible. I let the work explain itself rather than doing so in words. Instead smells and space communicate with your physical sensations, allowing you to project images and play sounds in the mind. I believe that smell possesses such power. (Ueda, 2013a)

2.2.2 Peter de Cupere

2.2.2.1 Smoke Flowers

Smoke Flowers is an installation piece by olfactory artist Peter de Cupere. In this work, a flower arrangement is equipped with the means to take revenge on the human population by regurgitating industrial air pollution. Where one would expect the flower to exude a fragrant and sweet smell, we are presented with quite the opposite experience. What at first looks like a picturesque setting, soon becomes quite dramatic.

The smeller, “realizing that the hint of smoke contains the scent of intense air pollution and not the pleasant scent of a flower, (...) is forced to question, reflect and go back to nature.” — a critique on societies’ detachment from nature, and critique on the
Smell and Culture

urban and industrial pollution (Cupere, 2018). Not only is nature suffering from our action, but we, as nature, suffer as well.


2.2.2.2 The Deflowering

This olfactory sculpture piece plays on the notion of virgin Mary as a symbol of purity and sacredness for women and the purely intimate smell of a vagina. The name, The Deflowering, is a reference to the act of losing your virginity — the pureness of the self, melts, and the vaginal fluids are freed onto the world. The taboo aspects of female sexuality are addressed through the intimacy of the smell and the invitation to interact with it. The real smell is used, created from real women from different origins, distilled in special ways by a German lab (Frank, 2017).

During one hour a statue made of frozen holy water melts. In the statue is a spot with real vaginal scent! When the Madonna melts the vaginal scent starts to mix with the holy water. In the room you start smelling the beauty of woman. When touching
the melted liquid, the original vaginal scent stays on your finger for a long time. (Cupere, 2014)

![Figure 8 — The Madonna statue made of frozen holy water. Retrieved from The Deflowering, by Peter De Cupere, 2014, https://vimeo.com/109588701](image)

2.2.3 Paul Vanouse

2.2.3.1 Labor

What does labor smell like? Labor is a dynamic, self-regulating art installation that re-creates the scent of people exerting themselves under stressful conditions. (...) created by bacteria propagating in the three glass bioreactors. Each bioreactor incubates a unique species of human skin bacteria responsible for the primary scent of sweating bodies (...). As these bacteria metabolize simple sugars and fats, they create the distinct smells associated with human exertion, stress and anxiety. Their scents combine in the central chamber with which a sweatshop icon, the white t-shirt, is infused as the scents are disseminated. The scent intensifies throughout the exhibition. (Vanouse, 2019a)
In this work, artist Paul Vanouse explores themes of human exploitation by using the smell of sweat, something intimately related to the body. It juxtaposes themes of industrial changes from human and machine labour to microbial manufacturing. As the microbes work in order to survive, a parallel is established between the tiresome working conditions of a sweatshop scenario and the microbial world. "In Labor, the microorganisms ironically produce the scent of sweat, not as a vulgar bi-product of production, like in factories of the 19th and 20th centuries, but as a nostalgic end-product.” (Vanouse, 2019a). It also reflects on the definition of self. Although we recognize the smell of sweat as coming from our body it is the result of bacterial manifestation that responds to our emotional, physical, and health state. These several types of microbes the human body relies on to survive, far surpasses the number of human body cells.

This work won the Ars Electronica Golden Nica award for the Artificial Intelligence & Life Art (2019b), evidencing that smell is steadily occupying more space in the art world.

2.2.4 Oswaldo Maciá

2.2.4.1 The Opera of Cross-pollination

Oswaldo Maciá is a Colombian born, London based artist that explores a non ocularcentric understanding of the arts, so that his “work opens itself to subjectivity over objectivity, experience over knowledge” (Maciá, 2017).
The Opera of Cross-pollination, a 2018 Olfactory-acoustic sculpture and ambisonics composition 22.2, is an immersive environment that searches for the senses in “the vague frontier where knowledge ends and ignorance begins.”, avoiding the visual representation to promote sensorial dialogue (Maciá, 2018). The piece also echoes the decaying state of nature, referencing the symbiotic relationship between insects and plants for the environment.

Two-thirds of all species on Earth are insects. Whereas orchids and insects flourish in their symbiosis, human adoration of the orchid has led us to cut the flowers of orchids, forgetting they are the sexual organs of the plant, and to pull the scent from their petals—the olfactory vehicle that encourages pollination. Just one kilo of jasmine perfume requires eight to ten million individual flowers. Meanwhile, we express our hatred of insects by fumigating them with chemicals. It is well documented that butterflies and bees have been disappearing in Europe and North America, but researchers are equally concerned about other insects, important both as pollinators and as elements in the food chain. (Maciá, 2018)

Figure 10 — The Opera of Cross-pollination, Retrieved from The Opera of Cross-pollination, by Oswaldo Maciá, 2018, https://www.oswaldomacia.com/the-opera-of-cross-pollination
2.2.4.2 Trilogy for Three Timbres

*Trilogy for Three Timbres* is a work that addresses the migrant influx in Europe, inspired by Greek tragedies and the actual ongoing humanitarian crisis with the refugees. By playing with notions of belonging, home, territory, daily life, and human condition, this olfactory-acoustic scenario depicts a complex socio-political situation.

Diffusers fill the space with the scent of freshly baked bread, an aroma associated with home. At the centre are three objects: a food-mixer, a fence and a piece of concrete holding a violin bow and a bell. A twenty-two channel sound composition is formed from wind, water, vibrating metal fences and ultrasound night calls of katydids - a variety of grasshopper producing a noise that exceeds the frequency of human hearing. These are the sounds of borders and migrations. (Maciá, 2016)

![Figure 11 — The visual aspect of the installation showcasing the objects present](https://www.oswaldomacia.com/copy-of-fables-of-the-wind)
3. Chasing the Fragrant Silence

While pursuing the creation of a work, be it artistic or not, I find it impossible to
dissociate from my Ethos as an individual. The work is therefore political in nature, in the
sense that it relates to the self and the other. Even though in some cases the message may
not be of political expression, the methods of production, as a reflection of the Ethos
certainly are.

I have a very deep spiritual and physical connection with nature and as such it is very
important to me. Ecology is therefore intimately connected with the work developed in
this thesis and as such is reflected in the ecological theme of the performative project. I'm
greatly concerned about the progressively deprecated state of nature and act accordingly
to that preoccupation avoiding as much harm as possible to nature, alive or not. The usage
of plastics is particularly relevant when trying to pursue a non-waste lifestyle, as is a non-
individualistic/capitalist existence.

In Japanese aesthetics there is the concept of 侘寂 — wabi sabi. A literal translation
of the term would fall short of its essence for it is as much felt as it can be understood.
Kakuzo Okakura in The Book of Tea, talking about Tea, Taoism and Zennism (Okakura,
2013) says:

Translation is always a treason, and as a Ming author observes, can at its best be
only the reverse side of a brocade, — all the threads are there, but not the subtlety of
colour or design. But, after all, what great doctrine is there which is easy to expound?
The ancient sages never put their teachings in systematic form. They spoke in
paradoxes, for they were afraid of uttering half-truths. They began by talking like fools
and ended by making their hearers wise. (Chapter 3)

Although Okakura is referencing Tao, the same can be said about wabi sabi. As it
exists in the subjective realm, the definition will fall short of the sensation. Wong and
Hirano (2007) reflecting on poetry and wabi sabi, describe the feeling as "a deeply personal
aesthetic consciousness, a bittersweet mix of loneliness and serenity, a sense of dejection
buoyed by freedom from material hindrance".
Chasing the Fragrant Silence

To me it epitomises the acceptance of simplicity and the transient nature of reality and its experience. I see in it a very ecological perspective, as what is old is also of value, the patina and faded colours symbolize life and time, and what is broken can still be esteemed.

I find that smell allowed me to embrace these feelings with a deeper connection. As the seasons changed so did the day-to-day experience of life.

3.1 Learning Through Experiments and Experiences

3.1.1 Changing Seasons

By undertaking this thesis, I actively put myself in a position of increased awareness on perceiving smell. Motivated by a desire to learn I smelled many flowers, objects and spaces. As someone who mostly walks or rides the bicycle to the places I need to be, I noticed how the smell of the streets changed. As winter transitioned into spring, I could tell nature was changing. Blossoming flowers perfumed the air. Sometimes I could see them, and I would go closer to experience it more intensely. Many other times I was left to wonder, whose garden is it that smells so fragrant, what hidden flowers live unseen behind these buildings. When the source of the smell was not in sight, the experience was somewhat more mystical that otherwise. There was mystery — a suspension of reality.

Being aware of the smell heightened my connection with plants as I was now aware of their cycles. Close to the place I live there is an old house that has what I believe to be pink jasmine growing on a wall. Around April, I noticed the smell as I walked the street, still a good 20 meters away from the flowers. Just like a dog does, although standing, I sniffed and looked around, trailing the source. Now that I knew where the smell came from, I instinctively searched it whenever I was nearby. I became attached to that plant’s flowering cycle. For about a month, I watched the pink jasmine grow in number of flowers and saw them fade away as the rain and natural decay came, taking away the smell and changing that segment of the street.

It makes me think of a time where housing had another type of concern and demand. Porto does not have a lot of public gardens in the city, something that has implications in mental health and quality of life (Frontiers, 2019). The “typical” house of Porto, the Casa Burguesa do Porto has a back-facing garden, which allows for some contact with nature for the house inhabitants. This creates a sort of cloister behind the houses, which helps to keep the city green but isn’t available to most people. Nowadays, in the metropolitan area of Porto the population density (Instituto Nacional De Estatistica, 2019) and real estate pressure are higher (Pinto & Pimenta, 2018). The number of flats is perceptually rising and there doesn’t seem to be an increase in gardened public spaces. This has an impact on the smellscape of the city as the odds of experiencing these natural smell encounters are diminished.

Even when not considering conventional garden spaces, the choice of plants that go along some streets have very interesting impacts on the smells experienced. One such example is the Avenida da Boavista segment between the roundabout and Rua da Boavista,
in front of the military and private hospital. Being a street with high vehicle influx, there is a constant smell of exhaust fumes. As fall arrives, the *Ginkgo biloba* that line one side of the street drop their golden fan-shaped leaves along with their seed-bearing cones. Ginkgo are very resilient to pollution and external threats, e.g. a nuclear bomb in Hiroshima and the coal pollution in 19th century London. Having survived for millennia mainly unaltered, this makes them fitting for busy streets filled with pollution. But as the fallen cones begin to wither, the butyric acid smell becomes very apparent and the floor gets very sticky (McMurray & Quimby, 2016). The thing with butyric acid is that it smells like vomit or stinky feet. A very interesting experience as you walk down a street, wondering why the smell of vomit is so intense.

In winter, that same street segment has a very different smell experience. Dividing the road’s direction of travel, there is a narrow but long flowerbed with orange and camelia trees. The orange trees’ flowers start to appear, and the street is filled with a subtle intricate smell. Although hard to notice on the sidewalk in the busier hours, it is easier to smell while riding a bicycle or crossing the street. Despite not knowing what kind of citrus it is, the usage of citrus in perfumery has a long tradition. Neroli, the essential oil extracted through steam distillation from the bitter orange tree flowers (*Citrus bigaradia*) is one of the most popular floral notes in perfumery (Victoria, 2019). Due to the presence of indole in the smell, they have this rich depth, often described as faecal and animalic (Victoria, 2011), which, for me, makes the smell very elaborate and compelling.

### 3.1.2 Ripping a Tangerine Apart and Yoshimura

Out of sheer experimentation and for no conceptual purposes I once ripped open a tangerine whilst presenting a piece of music made in a self-developed computer software in Pure Data. Although there was no effect whatsoever in reaching the audience through smell this episode is to me a representation of a “do it because you want to” attitude and in a way precedes all of that is presented in this thesis. That joyful moment enticed me to experiment further.

Not long after, I created Yoshimura⁵, a generative music piece that used incense as a medium to experience space and to create an encompassing atmosphere that, connected with the music, created an elevated sense of immersion. The choice of incense, a mild and sweet scent, with sandalwood, herbs and spices, was chosen to augment the ambient. Relaxed, nature related components of the music — water, birds and cicada sounds, further developed these feelings. Adding smell to the sonic component created a nostalgic sense of passing seasons and relaxed obliviousness, reminiscent of summer and past years.

The moment before the lighting of the incense made the whole process of presenting the piece a ritual of performance, creating the feeling of a bounded piece in time, preceded by the anticipation of what was to come.

---

⁵ The name of this piece is in reference to the notorious Japanese ambient music composer Hiroshi Yoshimura. The albums *Green* and *Air In Resort* being the most influential to me.
3.1.3 A Vague Sense of Presence at Semibreve

Yoshimura eventually evolved to an installation piece called A Vague Sense of Presence presented in the 2018 edition of Semibreve multimedia festival in Braga, Portugal. Due to the collective nature of this version of the work, presented among other sound pieces, the usage of smell had to be rethought.

The installation used smoke, expelled by a smoke machine, to make some lasers occasionally visible and to create a denser atmosphere. This presented an opportunity to use the smoke as a medium for the smell. Different essentials oils were smelled by different members of the collective and preferences were discussed and juxtaposed with the feeling of the installation. As the installation reflected in form and concept the collective as a group, the creation of the fragrance had to be a shared process.

A smaller mixture was prepared to smell how it would develop throughout the days preceding the installation. This, and the final mixture, had a pyramidal structure composed of four different oils. The smoke liquid (liquid cellulose and water) was homemade, as such, its smell was stronger than some of the regular commercial options.

The final mixture presented two problems. The proportion between the mixture of oils and the liquid smoke was too small — approximately 10 mL of oil mixture to 1800 mL of smoke liquid; and there was not enough time for the mixture of oils to develop its character between its creation and its usage.

3.1.4 The Smell of a Forest Fire

As an attempt to initiate experimentation with smell as a self-sufficient medium to convey message or meaning, I was challenged to present a small piece to my fellow colleagues working with the same thesis supervisor. It was to be presented the upcoming session, in the 17th of December 2018, at CARA, in Matosinhos. The challenge was to try and create a dialogue between a couple of smells without talking about the concept and, by the feedback given, verify if such an attempt at communication of intent was successful.

Given the one-week period to prepare everything, I found myself having to work with the materials I already had in my possession. I then decided to try and evoke the idea of a forest fire as this idea had an ecological discourse and paired well with the tools I had.

In 2016, Portugal was affected by extremely large-scale forest fires that decimated many hectares of trees, animals and people’s life’s and livelihoods. This of course represented a major ecological problem but also reflected the passive state of the political realm towards the proper maintenance of the fauna and flora. Given the temporal proximity of this occurrence, the conveyance of meaning would be perhaps facilitated.

Three different sources were used:

- A mixture of essential oils coming from wood or having woody tones — composed from nootka tree, silver fir and eucalyptus;
- A lidded glass jar with eucalyptus fruits, picked from the floor and stored approximately two months prior to this presentation;
- Generic supermarket matches.
I had initially prepared to do this for around four people and thus brought blindfolds for that amount. Eight people turned up, but all the remaining participants willingly closed their eyes. The decision to suppress sight was to enhance the focus on olfaction and to aid in the suspension of reality, breaking the material-smell connection. One of the blindfolds interfered in this process as the smell of the cloth was too strong in the proximity of the nose. Noticing this, its user quickly removed it.

Everyone sat around a table, their faces being at approximately 60cm to 200cm from my central vertical axis. The order of the smells was as described above, oils, eucalyptus jar, matches. To spread the smell in space towards the participants, semi-circular and linear movements were used, moving the sources around, one by one.

All the smells were felt, except for the essential oil mixture, which some of the more distant participants could not feel. The glass pipette bottle used for the oils had a small opening that, when paired with the unfamiliarity of the smell of the mixture, probably affected the spreading of the smell, its detection and its recognition as an active element of the performance. This could be solved by allowing more time for the smell to spread and by using a larger recipient. Perhaps an indication of the intrinsic performative time of smell as a medium. The eucalyptus jar, featuring a wide opening and a strong familiarity was promptly recognized. The matches at the end, with characteristic smell and sound, along with the flash of light produced, were easily identified.

Smell familiarity plays a big role in connecting with the medium, and to prolong the interest of the perceiver, a balance between identifiable and new smells can be procured if conceptually suitable.

After the sequence of smells was complete, a short time for storing all the materials away from sight was given before asking the participants to open their eyes. This was an attempt to further extend the suspension of reality and the magical feeling of the performed ritual. Overall the feedback was very positive and remarks regarding the previously unknown capacity to spatialize smell through movement were made. As the participants did not know the sources of the smell, prompt was the discussion as to what was apparently felt. The eucalyptus, as a familiar smell, was the common denominator of the experience for all elements, followed by the matches.

One of the partakers mentioned that the sequence of smells had aroused for him the idea of forest fires. I don't know if, beyond the immediate sensorial fascination of the experience, other participants made the same association as they did not verbalize it.
Chasing the Fragrant Silence

Figure 12 — Representation of the participants’ position for the forest fire presentation. I am represented in orange, on the lower right. Schematic not in scale and drawn from memory. To improve the propagation of the smells I should have taken a more central position in the table.

3.1.5 The Smell of Time on Matter

Wondering how time would affect the smell of different materials, I smelled things I had collected in glass jars to smell in what way they would change in character. I was already aware of this effect of time on smell, as organic matter tends to decay, and the rotting smells are difficult to ignore. My intention was to smell beyond the “this is rotten” perception and attempt to be more mindful of the perceptual changes.

One of the very first experiments came as a form of fortunate coincidence and some time before I started this project. Two friends gave me some eucalyptus buds as a gift from a walk in a park and I gladly stored them in a glass jar. As I like the smell, I opened it from time to time to feel the smell of eucalyptus. This made me aware that the jar was influencing the smell, mostly in the sensation of intensity. I noticed that oil from the buds was accumulating in the interior walls as the glass was progressively smudged. By shaking and moving the jar around I must have mechanically expressed some of the oils out of the buds, time and temperature probably had the same effects. The smell kept getting more and more intense for several months which surprised me quite a bit as it wasn’t changing in a rotten, acidic way. It seemed to have a very high shelf life. As eucalyptus is a very familiar smell to me this was a smell that was difficult to evaluate regarding different qualities of the smell. With a much closer intensity, it felt like time was presenting me a different portion of the forest, where hundreds of eucalyptus buds are present but in different times of their life cycle. It took a long time for the smell to change from the typical eucalyptus profile to one where the balance of notes changed considerably. I assume this is also caused by Eucalyptus being a Top note in essential oil terminology, which makes it stand out.
Looking for new smell materials I went to the Chinese supermarket Chen in Porto. Looking through the spice’s aisle, I noticed they had dried galangal, a type of rhizome of the ginger family. I had already smelled the essential oil of one type of galangal but never in dried form, although I recognized some similar aspects to the smell. Curious as to how hydration would affect the smell, I immersed close to 25g of dried galangal in a glass jar and left other 25g without water inside another glass jar. In the very beginning the smells were perceptibly the same. Three days later the smell was more concentrated in both, the infused one started to have some alcoholic presence and the dried one some mustard notes. One week passed and the liquid one had small circular white mould patches. A couple of days later, with larger moulds, the smell had a fresher presence, whereas the dried one remained similar in smell and concentration. Two weeks after the initial moment, the infused galangal had a mentholated smell, almost like some form of remedy but with the original profile still present, a woody ginger smell. From here onwards, it quickly became much more acidic, reminiscent of pineapple, menthol and wood. It also started to slightly irritate the throat when smelled. The dried counterpart became sweeter with notes of wood and mustard.

Infusing several food grade algae in water to see which would turn out to have a smell closer to the sea I prepared three glass jars to be stored in the fridge. Waiting a couple of days to smell as these would change, I noticed only two had a smell that reminded me of the sea breeze. The third jar, the one with brined kombu, remained in the fridge as its smell was very neutral. A few weeks later, I checked if the algae were still good to be eaten, to avoid wasting them. Noticing white matter developing on the surface, fungi I assumed, I decided to smell the jar to see if it was rancid. To my surprise, the jar’s smell was not rancid at all and now had a pleasant maritime smell. A couple weeks further, now with even more white matter the smell was slightly more intense but had developed some strong presences. I wouldn’t describe them as rotten, but it surely tended towards that direction. The concentration of the overall maritime smell, although a very specific one, transported me into Lisbon’s Oceanarium at Parque das Nações. This smell was very similar to the parts of the aquarium that are accessible through the surface of the water, with bridges traversing the recreated environments. Although not sure which of the exhibits it reminded me of it had that intense smell of encapsulated aquatic environment. I think it was either the penguins or the otters.

I attempted to extract the smell of orange tree flowers by means of oil maceration. For this I cut the flowers into small sized pieces to increase the exposure area. The oil used was almond oil, which was easily accessible to me and only had a mild smell. Poured inside a glass jar with the oil on top, the flowers were left to infuse for around three weeks, just before they started to show signs of oxidation. To increase the intensity the smell of flowers, a new batch could be used, after expressing the oil out of the older ones to ensure maximum effectiveness. Every day I would shake the mixture to mechanically aid the output of the oils. Day by day the smell changed in character, from a purely almond oil smell to one with an added aroma. The new smell did not capture the feeling of the flowers although it had some of the heaviness of their smell.
Another experience regarding this transformation is the change of smell in rippling fruits. It is a very joyful experience for me to witness the transitioning of smells in a pineapple or melon, or any other fruit, as they occupy the living room space day by day, and tell you when they are the best to be eaten or if they have ripened too much.

Another sublime experience for me is the smell of dimly lit decaying flowers. The subtle light exacerbates the deepness of the changing colours and allows me to contemplate the smell with a heightened depth— not merely a flower but a moment in life. A little of Junichiro Tanizaki’s *In Praise of Shadows* and Okakura Kakuzo *The Book of Tea*.
Chasing the Fragrant Silence

3.1.6 "How to Confuse Your Senses?"

Browsing through Maki Ueda’s blog — Scent Laboratory, I read some posts about a workshop given in October 2009 at the Willem de Kooning Art Academy, Rotterdam, in the Netherlands. The theme of the workshop was “How to confuse the sense of smell and/or taste, by means of the visual sense?” (Ueda, 2009). The blog post displayed the different outcomes the participants achieved, which, paired with some comments by Ueda, revealed an interesting mindset to tackle this challenge.

Initially I had planned to utilize the smell of cinnamon, spread in the room from hidden sources, to trigger people into expecting a dessert that would taste like that. I tried making cookies that tasted like vegetable curry. For this I used, white beans, ground cummings, curry spice mix, curcuma, oats (for the cookie look), flour, coconut oil, baking soda. Although the taste was of curry it was not intense enough, and the consistency was particularly distant to that of a cookie and more like an oven cooked bean burger. The moisture present in the beans probably had too much of an impact in the consistency. To achieve a greater spice flavour, infusing them in the oil could probably lead to a stronger taste, but it would probably increase the presence of smell as well.

Not only does the cooking itself present a challenge, it is also vital to ensure that only when placed in the mouth the trick is revealed. For that, the presence of the “simulated” smell must be greater than that of the food eaten. Considering this, I pondered if rubbing the cinnamon essential oil in the plate, utensils and my own wrists would strengthen this concealment. The logic behind placing it on my own body was to allow the smell to be spread as I would move in the space to serve people their part in a ritualistic method.

The second attempt was to create a merengue that would taste like shiitake mushrooms and soy sauce but looked like it was strawberry flavoured. For the merengue, aquafaba from canned chickpeas was used, instead of eggs, as it can create stiff peaks. For the red colour of strawberry, beetroot was used. Icing sugar was mixed in and small merengues were made. Due to the canned chickpeas having salt and the large amount of sugar needed for the proper consistency, the final flavour mainly reflected these two components, salty and sugary. The mushrooms and beetroot parts were not felt at all.

To tackle the excessive saltiness, another attempt was done with raw chickpeas, cooked without salt. During the pre-soaking, several sheets of nori algae and kombu algae strips were added to the infusion and then to the cooking. This was to create merengues that had a marine taste, like fish, but obtained from seaweed. The mixture had a pale brown colour so the smell of cinnamon would probably be a safer bet for this version. No sugar was used for the mixture, to concentrate to the maximum the marine flavour, but the merengues did not form in the oven.

Pondering on how to successfully trick the visual-smell-taste expectation with a simpler approach I thought of gelatine. It usually has a strong colour representing the flavour and the smell, after setting in the freezer, is relatively subtle. This presented an opportunity to use the colour and lack of smell in favour of the illusion. Through infusions it is also possible to create light coloured or transparent liquids that have a lot of flavour. Paired with the simulated smell in space it could lead to a successful attempt.
The first attempt was to create a fishy/marine tasting gelatine that would smell like lemon. The same approach with the essential oil in the utensils and body was going to be used. Algae was soaked in water to let the flavours infuse and curcuma was added to create a yellower hue in the liquid. Everything was heated in a pan to further infuse the water with the ingredients' taste. Agar-agar, an alga based gelatinising agent, was added after removing the solid ingredients. The liquid was poured in ice making forms and put in the refrigerator to set. As some the algae used were preserved in salt, the flavour became too intense and not suitable to be served. A subtler approach needed to be made.

Reflecting on the ingredients to use for the gelatine, asparagus came to mind. Asparagus has an interesting relation with the sense of smell as it produces a very distinct change of smell in urine as it is digested (O'Neil, 2010). This would further extend the impact of this experiment beyond the eating-smelling illusion. Only part of the population possesses the necessary genes to detect this change in smell, me being one of them. Given the size of each individual gelatine, the asparagus concentration probably needs to be quite high for the changes in urine smell to take effect.

Some asparagus were cut and boiled in a small amount of water, just enough to submerge all the ingredients, around 200 millilitres. Agar-agar was added after removing and draining the liquid out of the solid parts, a necessary step to secure the transparency of the gelatine. It was poured over ice forms and left to rest. After it solidified, a little amount of ground sugar was poured over the surface of each individual gelatine.

When storing the gelatines, a paper cloth with hidden lemon peel inside was placed on the bottom of the packaging. A small cotton disk with lemon essential oil was also added inside the cloth. Due to their slipperiness and to facilitate eating, wood toothpicks were available for use. The toothpicks were infused with a small amount of lemon essential oil in their central part. As time passed, the smell inside the packaging intensified. When smelled, whilst using the toothpick, the gelatine gave away a sensation of lemon. I told people the flavour was lemon and one of them held it to their nose and described the smell as a pleasant one. Although the smell was somewhat intense, the taste of the asparagus gelatine was quite mild, which coincided with the feedback given. The taste was described as neither strong nor lemon. Little after eating I told everyone that the content was asparagus and that the smell of lemon was obtained from sources external to the gelatine. Everyone acted with surprise as it wasn't expected in any way.

Figure 14 — Asparagus "lemon" gelatines.
3.1.7 The Seed from the Sacred Ceiba Tree

I was walking through the forest in the state of Chiapas, Mexico and, along with our Lacandón guide (descendent of the Maya), visited a sacred Ceiba tree. This tree, for some of the pre-Hispanic residents of Mexico and neighbouring countries, had a transcendental character, as it connected the sky and the underworld to the human realm (PL, 2016). The tree was very imposing by itself but as we took shelter below it and were preparing to leave, the tree dropped a seed right in front of me. I picked it up and smelled it right away. I was appalled by its tremendously strong smell of fish. This was very curious as such a fishy and maritime smell was not at all what I would expect, especially given my surroundings. A very important lesson given by nature.

3.1.8 Spring Flowers in Church

Romania is a very religious country and in Bucharest, the capital, there are plenty of churches. While visiting the Biserica Rusă (St. Nicholas Russian Church), the smell of flowers was perceivable in all the interior. Along with the very silent atmosphere and religious ornaments and paintings, the smell brought the church to a realm of its own, separated from the exterior city life. Flowers and the resurgence of life in spring, Easter approaching with the rebirth of Christ, it all overlapped symbolically. The air had this feeling of transcendence, very poetic and fragrant.

Figure 15 — Flowers inside Biserica Rusă.
3.1.9 Sea Breeze

Conceptualizing an installation that would juxtapose the smell of the sea with the smell of industry (plastics) and decay, I went to the beach to inhale the air and try to understand its characteristic odour. From previous smelling experiences and by cooking with algae I reasoned that I could get the smell of the sea breeze by collecting algae.

This reasoning was further delved with research regarding what perfumers used to convey the sensation of sea, a substance called Calone 1951, also known as watermelon ketone. This synthetic chemical's original intention was to be a food additive that recreated the taste and aroma of watermelon, but the smell was found to be much closer to a fresh sea-breeze scent when properly diluted (Behnke, 2015). Although of a synthetic nature, calone's chemical structure is alike metabolites produced by certain algae, an important component in the olfactory impression of the fresh seashore (Jensen, n.d.). As a perfume ingredient it was responsible for defining an entire genre (Helbig, 2019) and was particularly popular in the 1990's, used in famous perfumes like Jacques Cavallier L'eau d'Issey released by Issey Miyake, Pierre Bourdon's Cool Water released by Davidoff, Alberto Morillas' Acqua di Gio released by Giorgio Armani (Fragrantica, 2019), all referencing water in their name.

Going north of Leça da Palmeira, to Praia de Labruge. The beaches in this area have areas with rocky shoreline and when there is a low tide, these are easily accessible. For the low and high tide times, I consulted the Portuguese navy's hydrographical institute website (Instituto Hidrográfico, 2019), as suggested by a sea-knowledgeable friend whose brother is a marine biologist. Using Bo Jensen’s website as a reference (Jensen, n.d.) I asked this friend's brother if the algae that the website referred to, Ectocarpus siliculosus (Ectocarpaceae) was present in the surrounding beaches, to which I received a positive answer. His advice was to take an image of the algae with me as it was quite difficult to tell them apart. Upon arriving at the beach, I took some time to thank the sea and its life, for I was there to take some algae with me and learn from it.

I approached some uncovered rocks and gazing upon the shades of green, purple and browns, started smelling. There were as many shapes and colours of algae as there were smells and intensities. Some algae had no noticeable smell and sometimes it was difficult to differentiate the ambient smell from the algae I was smelling directly. The act of collecting the algae was quite intense as I remained silent for several hours. I ended up taking 6 different types of algae with me stored in glass jars with sea water. During this process I picked up a lot of garbage, especially inside the water, catching several plastic straws, caps, tubes, bags and random pieces. I put them in the recycle bin later.

I let the algae stay in sea water for a day but noticing that the smell was becoming rancid I drained them out. As the water was accelerating the decomposition of the algae, I decided to dry them out by exposing them to sunlight. I laid them out in the balcony over paper cloth for a few hours. As the wind entered the living room, a wonderful sea breeze smell was coming in. It felt like living near the sea as the smell was just like the real thing. After completely dried I stored the algae in glass jars and closed them. Some developed very interesting smells, all slightly different from one another. I stored the three best specimens as the remaining either didn't have enough smell or had too strong of a rancid presence.
Figure 16 — Some of the algae at the beach and the collected pieces of plastic below.
3.2 Smell Performance

One of the main outputs of this thesis is a performance that uses the sense of smell as its main medium of expression. The accumulation of the previous experiences and reflections on smell, along with the study of pre-existing works, influenced and led the decisions that shaped the performance.

Thinking on how to present the performance there were many ideas on which smells to use, the conceptual approach to take, the presentation methods, etc. The ecological theme was the structural basis and the only thing that was probably constant throughout the process. Even so, as the methods of presenting change, the conceptual aspects needed to be adapted to those same changes. I wanted to have a work that, through time, contrasted a smell that was perceived as coming from nature, with a smell that was perceived as a pollutant. In the initial conceptualization, it would start with the smell of seashore and end as the smell of plastic. Through this juxtaposition of smells, I wanted to bring the issue of plastic pollution in the ocean, and plastic overuse in general daily life.

Oblivious as to how to approach the performance method I shortly deviated towards the idea of presenting the work as an installation. In this installation piece, the smell of the sea would be dispersed through mist, and a candle would transition from a floral smell to the smell of pollution as it would burn. The candle has a symbolic connotation commonly associated with religious practices, worship, the deceased, and I wanted to explore this. There’s also the component of passing time as it burns and transforms, from one smell to the other, from candle to the lack thereof, from life to death. Designed to be presented in a small fisherman chapel, the place would strengthen this maritime and ritualistic connection.

Hoping to understand how some of the conceptual and extraction techniques should be tackled and attempting to overcome some arising problems, I had a conversation with smell artist Maki Ueda on the third of April 2019. After studying her work and blog6 I prepared some questions addressing some extraction techniques that I did not understand completely (or at all) and asked some questions regarding her insight on smell as a medium in relation to what I wanted to do. Ueda suggested that, for a spatial installation, the real material should be used, as opposed to a form of extraction. Her arguing was that the human nose is quite good at detecting the difference between the real smell and an extracted smell. The required processes and manipulations change the nature of the smell. Not only that but extraction often requires big processes, demanding knowledge about the materials, hardware and time. Extractions often become quite concentrated and are difficult to manipulate into different media hence the inadequate spatial use for the installation. While discussing my idea, I became aware that the role that the candle takes, of being an element in charge of transitioning between smells could be undertaken by myself as the active agent of change. The human performative aspect of the piece was again in consideration.

Thinking on how to incorporate the performative aspect back, I remembered 100 Keyboards, an installation-performance piece by Japanese artist ASUNA, which I

---

6 https://scent-lab.blogspot.com/
Chasing the Fragrant Silence

witnessed in Serralves for O MUSEU COMO PERFORMANCE (ASUNA, 2018). In this performance, ASUNA lays out on the floor, in a circular fashion, 100 toy keyboards. As they are turned on, an aural space of interference is created by the timbre and tonal differences between the keyboards. Circulating the space, one gets to experience the differences in sound. I was interested in this relationship between unique aural effects and spatial positioning, so I started to plan a similar performative approach with smell.


The same “sea to pollution” style was going to be used but the structural aspect was now different. I planned to test a smell progression that grew into a higher degree of anthropogenic involvement. I would start with the maritime, develop into forests and woods, flowers, spices and at the end, industrial. The circular configuration would have, at the begging and at the edges, the smell of the sea, which would be activated gradually for the smell to occupy the space and the nostrils. The sea would be present throughout the performance as a base note/environment. Inside the circle, several materials in different forms, oils, liquids, flowers, bark, etc, would be manipulated, revealed and hidden, creating the progression. Depending on where you stood, you would experience a different olfactory highlight as the piece was composed.
Figure 18 — A simplification of the different modes the project took. The lavender colour represents smell-objects. Top left: five distanced smells presented to the audience seating at the squares, one by one, by the performer at the larger diamond shape; Top middle: the installation designed for the church with six sources of sea smell in solid colour and the candles in outline; Top right: the circular configuration with the sea smells in the vertices of the hexagon and different smell objects in the interior, people would circulate around the objects; Bottom left: a decomposition of the circular configuration into smaller circles of specific groups of smells; Bottom right: circular configuration in two themed circles, one of the sea that evolved towards gasoline, the other of forests that evolved towards burnt smells.

3.2.1 Extracting the Smell of the Sea

Attempting to recreate a maritime smell to use in the performance piece I experimented with algae as a base material. The idea was to disperse the smell using ultrasonic piezo mist makers commonly found in essential oil dispersers. These ultrasonic piezo transducers, used for humidification, convert high frequency electronic signals into high frequency mechanical vibration. When immersed in water, the high-frequency movement of the transducer can’t be accompanied by the water, creating a momentary vacuum where the water cavitates into vapour on the negative vibration. On the positive vibration, the cavitated water is forced through the surface of the water by the high-pressure waves, creating a fine mist (Hanzhou Ultrasonic, 2015).
Chasing the Fragrant Silence

I wanted to use these tools as the mist created is quite beautiful and I reasoned it would function well with a water related smell, aiding in the suggestion of the sea. Mist also has an elegance to it, with its thickness and intricate movement. The humidity that this method brings, further accentuates the watery sensations. Each piezo requires a power supply of 24V and, according to tests made, around 300mA. This meant that, for six piezo, there needed to be a supply capable of delivering over 1800mA. Testing the six at the same time created enough mist to hide the entirety of a bathtub's bottom all the way to the middle. Some tests were made for the consumption rate but the amount of water that is turned to mist fluctuates considerably depending on how deep inside the water the piezo is and the proportions of the container itself. The seller stated that the consumption was 250ml/h, but similar products from other sellers claimed up to 400ml/h.

Figure 19 — Repurposed plastic bottle used as a container for two piezo units. The gold dots are spaced 1cm apart. The larger line on the bottom represents the top part of the piezo. Different amounts of water on top of this line resulted on different smoke heights.
As is, the piezo operate at full potential when plugged in to the power supply. While designing for the performance in its circular format I wanted to control the intensity of the mist to create a fade-in effect. For this, it was necessary to create a small circuit using a Pulse Width Modulation (PWM) capable microcontroller, a TIP120 transistor, a potentiometer, and other components. There also had to be the preoccupation of neatly and safely configuring the electronic components for the performance which adds to the difficulty of usage. When controlling the intensity with the potentiometer, there was a high-pitched sound clearly noticeable until the smoke reached a certain, albeit small, intensity. This sonic presence, I assume, is caused by the smaller supply in power making the piezo vibrate at below ultrasound frequencies. This would be a nuisance if the amount of smoke desired lied within the audible range.

Figure 20 — Schematic for one potentiometer regulated ultrasonic piezo with light emitting diode (LED) indicating intensity. The code used for this example is available in chapter 6.1.

For the sea smell, toasted dry nori seaweed and brine preserved Kombu seaweed were infused in water for a few days inside a large water bottle. Gradually the smell became more intense and after 3/4 days the contents were strained and expressed to remove the largest amount of liquid possible. The solid leftovers were used in cooking to reduce the
amount of waste created in this process. The liquid infusion, with a brown and slightly opaque colour, kept many of the smells of the algae and had some tea-like notes. In this form, the smell lasted little more than two days before some acidic presence started to develop. The bottle where the liquid was kept had a large amount of air volume which should have been avoided to guarantee a longer shelf life.

Figure 21 – Water with algae infusion. On the right, the cloth used to filter the solid components out and used to mechanically express the liquid out. On the left, the bottle used to infuse the algae.

Using Maki Ueda's blog as a reference, and to appreciate how it would turn out, an alcohol-based method of extraction was made with 70% ethanol. Nori seaweed was ripped in smaller sized pieces to increase the surface area and soaked in water for 15-25 minutes. As it wasn't obvious for me what method had been used in a post about seaweed smell
extraction (Ueda, 2007), I did two versions of this. One where the water was drained, and the algae fully immersed in ethanol. The other where the water was kept, and 5 teaspoons of ethanol were added to the mixture. A couple of days after, the smell wasn’t developing any rancid or acidic notes, which was a good sign. The smell of algae was quite strong but there was also a noticeable presence of alcohol, especially in the alcohol-only version.

3.2.2 Dispersing the Smell of the Sea

For the first visit of the performance space, I experimented with the efficiency of the water-based algae infusion dispersed through the piezo method. The space, a photography studio with a black box like area, 12 meters long and 7 meters wide, had many convenient features — curtains to change the space size and a truss in the ceiling to hang lights and other resources. Being an underground space, some street noises like cars, conversations, chair and feet noises from above were sometimes heard. There was also a small but present air flow that would influence the smell dispersion in that space. To tackle this last issue, some curtains could be used to reduce the intensity of this air flow.

Filling the recipients with the algae infused water and placing the piezo inside, made it immediately obvious that the previously planned containers were not adequate. The height-width ratio was not adequate for the formation of a dense mist and the interior part of the container was too uneven to ensure a proper position for the piezo. A taller and narrower vessel needed to be used. Using three piezo, as opposed to one, did not make a significant change in the creation of mist. After rearranging the placement of the piezo a position was found where enough mist was created for enough smell dispersion. This made it evident that the smell concentration in the liquid was not high enough to be dispersed through that method for a space that wide. Although smelling with the nose close to the liquid was enough to notice the smell, if planned for a performance where people would be circulating around the performance space while standing, the strength wasn’t enough — the floor was too far from the nose. Adding the liquid content of the water and alcohol (5 teaspoons) algae extraction did make the smell more noticeable but the persistence time was very small. Opening the glass jars with the sun-dried beach collected algae, added more to the presence of the sea smell than the liquid did. This further demonstrated what Maki Ueda had said about using the real materials as opposed to extraction methods.

Taking into consideration what this test had made evident I decided to reconsider the spatial aspect of the performance and concentrate in the sensuous experience of olfaction. I would still present an ecological composition like the ones mentioned before but instead of overlapping in space, each smell would occupy an independent status in time, presented one by one, and the sequence would create the composition. By giving each spectator the capability of focusing solely on one smell and to physically having it close to their bodies, I reasoned that the connection with the sensuous experience would be heightened.

3.2.3 Preparations

With the new idea of bringing the smell to the smeller, the visual and tactile aspect of the performance had to be altered. Taking inspiration in Japanese aesthetics, particularly from the tea ceremony, the object-content relationship was pondered with great care. As
the smells to be used were being decided, so was the presentation method. The smell objects were going to be placed along a table, with a linear progression from the start to the end. For a moment there was the idea of having two tables, one featuring the maritime environment that evolved towards the smell of gasoline, and the other with a forest environment, culminating in a burning smell. Having difficulty populating the two long tables with interesting smells, the environments were mixed and presented in a single table with a total of six smells.

Figure 22 — A drawing of how the setup with two tables would probably look like. In the top left picture, the lines in purple indicate an imagined path to be taken by the performer.

The smells used were algae, eucalyptus buds with lavender, a very large cinnamon stick, rose flower petals with lemon tree flower petals, gasoline, and matches. The algae were placed in a light-beige ceramic tea bowl with a dragonfly drawing in blue. The colder feel of the ceramic was used to accentuate the humid sensation of the algae smell. A wooden bowl was used for the eucalyptus buds. With a rougher texture and a dark brown colour, it paired well for the forest sensation. The cinnamon stick used, looked like regular tree bark, and as such not associated with cinnamon by relying on vision as the sticks are usually smaller and curled. It was positioned at an angle and on top of wood-like flowers. The flower petals were inside a Japanese tea-caddy with a blue background colour with golden lines and cherry blossom flowers in white and pink. Gasoline, being a “more chemical” source, was placed inside an 8 mL transparent glass bottle with a black plastic
cap and centred in a transparent glass petri dish. Being transparent, the clear purple of the gasoline was visible. The matches were kept inside the match box, which featured red chilis and pepper grain on top. The first four smells would be handed to the guests, exploring the proximity and intimacy factor, whereas the gasoline and the matches would be at a distance, traversing the air in the room, exploring the feelings of anticipation.

Selecting the containers for each of the smell sources was a carefully thought process. There needed to be an aesthetical harmony between all the objects present and each package should enhance the experience of each smell.

The room also had to be prepared to enhance the experience of smell and to elevate the performance to an individualized moment in time and space. The main goal was to focus on olfaction. The visual component of the presentation was reduced to a minimum by controlling the lights and darkening everything else. The sounds were solely those coming from the manipulation of the smell objects and the uncontrollable ambient sounds coming from the outside. Reducing the usable space with black curtains and modular walls, the room had a more controlled air flow, the space became completely dark and the flutter reverberation and reverberation time were reduced. Two remotely dimmable lights were installed, with orange filters to make the colour temperature hotter, and with panels that can modulate the light dispersion. One was aimed towards the back of the benches where people would be sitting and the other towards the desk where the smell objects were placed.
Chasing the Fragrant Silence

Figure 23 — Representation of the performance space. Not in scale. On the left, four seats are represented with squares, on the right, the table with a simplification of the smell objects. The orange triangles represent the lights and their direction. The blue line represents the direction of the air flow, from top to bottom. The bottom left opening shows the entrance into the space.

3.2.3.1 Unused Smell Sources and Techniques

I knew I wanted to use the burning smell before knowing which source I was going to use for the smell. Initially I intended to use paper as it was easily accessible, simple to handle, and could be manipulated into a custom design. I started to create pyramidal stand designs with nickel wire to hold the paper. As soon as I had my first stand design, I stuck some paper in it and burnt it. Although it had a smell recognizable as burning, it had a sweet note, somehow like vanilla. This smell profile wasn’t adequate for the use I wanted to give it.

I had an “ah-ha” moment when preparing toast and a small piece got stuck on the resistors. That was a good burning smell to use, but logistically much more elaborate. Using an actual toaster was out of the question as its formal characteristic wouldn’t blend in the remaining items aesthetics. I attempted to reduce it to the minimal setup necessary with help from a knowledgeable friend in the fields of electrotechnics.

Using two ceramic resistors in parallel, both physically and circuit-wise, I connected them directly to an adequate power supply to exploit their heat as much as possible. I placed a piece of bread from the day before, roughly 2cm³ in size, on top of the resistors and waited. It took close to 2 minutes for the smell to start to be noticeable. By flipping the bread, I could see that it had burnt quite a bit. It was a success, but the time it took to heat and the lack of tests with the full performance setup made this method too unreliable for presenting. The addition of electronic components also came with the added endeavour of securely and neatly organizing the cables and components.

Figure 24 — Ceramic resistor, visually similar to the ones used. Adapted from https://www.parts-express.com/Data/Default/Images/Catalog/Original/016-100_HR_0.jpg
A similar conclusion was arrived at regarding the usage of the ultrasonic mist makers with water and essential oil smells. There was a long time where they still belonged to the smell items, but I realized that, compositionally it wouldn’t make sense. The adequate container was eventually found, although probably the hardest to, as the aesthetic aspect was preceded by functional ones (the width-height-volume relationship required).

There is a lot of inherent potential in the usage of essential oils provided you have access to them. Due to their long history and the rise of aromatherapy in recent times there are several mixtures on the internet which can inspire a new creation. In my case, I was going to create a wood related composition. I had imagined the diffuser taking the place of the cinnamon in the sequence. This posed a conceptual problem as it used the distanced experience of smell, diminishing the impact of leaving it later for gasoline.

The pervasiveness of essential oils in mist is quite high, making it harder to control in a scenario that preceded the ending moments. Since gasoline was going to be the ending base tone of the performance, it would be less impactful if some of the oil remained present in the water or in the air. To reduce this possibility, a carefully controlled quantity of oil could be used, for example with a pipette.
3.2.4 Performance

On the twenty third of May 2019, the performance was presented a total of nine times, for nine different groups for a total of 38 people. All the attendees were directly invited and inquired about their availability for that day. Creating harmony between individuals was the focus regarding the planning of these sessions. Many people were not aware of what was going to happen or whom was to come. Taking advantage of that I invited people who are friends or in some kind of relationship, people that are friends but haven't seen each other in a while, people that may not be friends but share much in common and could have good conversations before or afterwards, etc. Although this may seem an accessory to the presentation itself, it only made sense this way. Sharing the experience with others is what really matters. Inter-individual harmony was a relevant part of the process as it represents a larger pursuit for equilibrium and happiness.

The first session, at 10:15 in the morning was presented for four people. I awaited the participants at the studio’s door and accompanied them to the room before the performance space. In the performance space only the light that illuminated the stools was lit, albeit dimly. Standing at the entrance I invited them in and directed them to the seats while moving towards my position near the table. The number of seats available was exactly the number of people coming for each session, another endeavour in the pursuit of harmony. The space was so dark, a sensation heightened from transition from daylight into an underground place, that the first person to sit faced the opposite direction. As soon as everyone sat facing me, and I was standing in my place, I turned on the light that illuminated the table. This had quite an impact as the darkness made the table inexistent prior to that moment. Inspired by the tea ceremony’s choreographed movement, I carefully picked up the first item in a ritualized manner. I rotated the ceramic bowl in between my hands, using two partial rotation movements. Now, the dragonfly drawing faced the guests. I lifted the bowl with both hands and bowed slightly, taking a deep, long inhalation focusing on the algae smell. Moving the bowl downwards I exhaled, still concentrating on the olfactory sensations. I then repeated this inhalation-exhalation cycle once more. By performing these movements, I could in a way instruct without verbal communication, on how to approach the smell items and set a tempo to the performance. I approached the guest closer to my right side and, slowly leaning forward with both arms, presented the first item. Moving back but still facing the guests I retreated to my position behind the table, now a little bit further back into the darkness and roughly aligned with the first item’s position. I awaited as the guests smelled and passed the item along. Each took their time and approach to smelling, although somewhat like what I had done myself. Taking the hint from the rotation movements I had initially done, one guest noted that, mimicking the movement and smelling a different part of the algae, the smell was perceptually very different. As the item was passed to the last person, I moved to the left side of the table, awaiting the moment the last person would be ready. I approached the last guest and, extending both arms forward with a slight bow, took the item into my own hands, moved backwards and carefully placed it in the same place it had been before.

In this first session, I turned off the light behind the guests as soon as I turned on the table’s light. Although ideal to reduce the visual component, this posed a problem to me as it was very difficult to perceive when the last person had stopped smelling. As such, I
Chasing the Fragrant Silence

decided to turn the light back on for the following item. As noted by one of the guests at the end, this turning off and back on made them aware of the light, affecting their capacity to fully concentrate on the smell. Taking their advice and my own necessity, for the remaining sessions, the light stayed on but at a very low intensity. Another guest noted that, due to the darkness, when transferring the item, their hands/bodies would touch, aiding the transition. This brought an interesting corporeal element to the interaction.

Proceeding to the second item, I picked up the wooden bowl with the eucalyptus buds and lavender. I shook it slightly with a circular movement to rearrange the contents inside, affecting the balance of the smells. I then repeated the smelling, handing and retrieving movements done before. The eucalyptus is a very familiar smell in Portugal and is therefore easily identifiable. Due to the smell-memory relationship, this smell was particularly strong for some people in terms of evoking things past. During the fourth session, one of the guests who is particularly akin to smells, taking a long time smelling each of the items, shared a story regarding the eucalyptus smell. She had spent 9 years in a religious boarding school which had a large terrain with eucalyptus. She used to run away early in the morning into a cave as she did not want to go to morning's religious practice. While hiding in the cave, everything she could smell was the smell of eucalyptus, awaiting the nuns that would eventually find her. Unsure if my actions had triggered unpleasant feelings, I am nonetheless very grateful that that person shared with me and the remaining guests something so personal to her experience.

These first two smells also had a stronger physical sensation for two of the guests in the 7th session. They described feeling lightheaded and that the smell had "pierced" deeply into them. There were some references to this type of physical sensorial aspect of the experience but not a lot. At least in comparison to memory related experiences. I wonder if it could be related to a visual-centric type of observation that does not pay much regard to the physical sensation. Perpetuated by the modernist model of art museum and the body-art object distanced interaction. Perhaps an increased exposure to smell related experiences could make people more mindful of their bodily experiences and help them describe better the olfactory sensations. The third smell also had a more physical sensation for some of the guests.

I chose a raw cinnamon stick for the third smell-object. Visually it looks like wood bark because that is exactly what it is. Several species of trees belong to the Cinnamomum genus, but only a few are grown for commercial spice use. Most international commerce comes from a related species also referred to as Cassia (Cinnamon, 2019), a name derived from Hebrew q’tsi-ah "cassia," from qatsa "to cut off, strip off bark." (Online Etymology Dictionary, s.d.). Cinnamon sticks are usually small and very curled so the odds of recognizing it as cinnamon were small. The sticks used were around 20cm. I would pick it up with both hands, one at each side, lifting it up, and, placing the thumbs in the middle, would break it in half, releasing some dust and sound into the air. I stacked them both and brought them close to my nose. I would intentionally smell different places, attempting to indicate that a different experience would be had. The edge where the bark had been broken had a much stronger smell, much more recognizable as the typical cinnamon profile. The remaining parts of the wood had a different balance to the smell with a more citric presence. The guests understood this and mentioned these differences. I approached the first guest and used both hands to vertically present the two stacked sticks. One guest remarked that she had to control herself to not cough because she felt the cinnamon dust
in the stick irritate her throat. I moved back, awaited the passing of the item, received it from the last guest, and placed it in its starting position. As I would always break the stick, I replaced it with a new one for each session, storing the broken parts for later use.

The following item was the tea-caddy with rose petals. The visual component hinted at the interior content quite directly in this one but even so, not everyone recognized the smell as floral. I held the tea-caddy in its place on the table with the left hand and with the right, slowly removed the external lid, aligning it on the table with the base. I then removed the inner lid and placed it behind the outer one, also aligned. I lifted the container, placing my right hand below it and smelled. I then repeated the handing, receiving and placing back on the table, leaving the container open. This smell was rose petals, collected from my grandmother’s garden. Not from the flowers but from the floor. I did not want to cause stress to the plant and flower and thus only used petals that had already fallen. I gently removed any insect that might have been on the petals and placed them in the flowerbed. While individually subtle, when together in a jar the smell had a stronger presence. Nonetheless, it had, to me, an elegant frailty. As an alternative, I had a jar with lemon tree flower petals stored, picked from a friend’s garden. For the second session I decided to mix the lemon flower petals in the tea-caddy along the rose petals. The smell of the citrus flowers is very compelling, as previously mentioned in the changing seasons subchapter. I doubted mixing the petals the following session, recognizing that the smell, now with a different complexity, was confusing and no longer matched the sensation I had envisioned for that smell moment. I kept thinking about separating the petals but as the day went along, I never got to it. Separately, each of the flowers is very interesting but they carry very different sensations and did not mix well in this case. I acted impulsively and should have reflected on this. As people did not repeat the sessions, the change was not perceivable for the guests. As someone that was there through all of them, it would have been for me more interesting to see how the rose petals smell changed through the day. By the seventh session, when smelling the petals, it felt like raw potatoes. Curiously, one of the guests of that very same session made a comment regarding that and assumed the interior of the tea-caddy had potato peels. This sensorial corroboration through vision is quite curious. If it smells like potatoes and looks enough like it, then it probably is. When asking if it was indeed potatoes, others from the same session acted surprised, denying that possibility as it was an improbable description for them. The tea-caddy so far was the only container that kept the smell source occluded from direct sight, and most guests peeked inside the tube to see. One guest in the first session thought that, derived from looking, it was orange peel. Upon using olfaction, they immediately realized it was flowers. This was an interesting occurrence as it hints at the visual pervasiveness in knowledge acquisition.

Flower petals was the last smell that was handed to the guests. The following two smells relied not on physical proximity but explored the aerial and distanced experience of olfaction. A small 8mL glass tube with gasoline stood closed on top of an 8cm in diameter petri dish lined with a circular paper cloth of the same size. Still in its position, I removed the tube’s lid. I lifted it and poured 2-3ml onto the petri dish, placed it on the table surface, aligning it with the dish’s centre. I stepped back, stood in the same place and counted to 30, to allow the smell to disperse. The small amount used, along with the small tube served to contrast the size with the usual intensity that the smell has. However, gasoline was the smell that posed the largest amount of problems regarding its perception.
The first session’s guests had no problem in this regard, but in the second one a couple of guests didn’t feel the smell. Afraid that this would repeat itself, I changed, throughout the day my approach to the gasoline smell object. I was not able to understand what made gasoline imperceptible to some although I assume it was probably the air flow in the room paired with some guests’ higher threshold level of perception or smaller awareness to the smell. And it did not seem to be directly related to the amount poured into the petri dish as it fluctuated at most 1ml. Perhaps when some gasoline dropped onto the tablecloth and into my hands it aided in the dispersion of the smell. By the sixth session I was lifting the petri dish slightly and tilting it in a circular motion as I gently blew into it. This ensured that the smell reached every guest. Even when doing so, I stepped back and counted to 30. By presenting a smell that the guests could feel at a distance, I wanted to reference the experiences of smell that one encounters involuntarily and their alternative modality of perception. It is important to note that no guest said that they had visually identified the liquid as gasoline while still inside the glass tube. Some assumed, due to the colour and appearance, that it was some sort of perfume. As the smell travelled the air and started to be perceptible some guests stated that it first appeared as a more alcoholic substance and only further in time, they recognized it as gasoline. Perhaps due to the difference in volatility of the components present in the liquid — I don’t know. Gasoline had this experience that, as soon as you felt it, it was difficult to not be aware of it. Due to this factor and wanting to use the small-scale container to highlight its potency I tested different containers and the most efficient way to disperse with them whilst visually referencing the chemical nature of the smell object. I concluded that, for the tube used, removing the lid would not be enough, at least at the distance that the guests were sitting and in the temporal rhythm that the performance had. While testing with just the lid removed the perceived smell had a different balance to it, more akin to some sort of alcohol. I assumed that the short opening affected the liquid’s volatile elements ability to disperse simultaneously.

After waiting, I approached the last item — the matchbox. I lifted and opened it, removing three matches and holding them together with my right-hand fingers. I lighted them all together, tilted them downwards to let the wood burn half-way and then, with a long and intense exhalation, blew the smoke towards the guests, putting out the fire in the process. I placed the box in its original place now with the matches on top of it. I stepped back, discretely turned off the lights that lit the guests first, then the one that lit the table. Standing still in the darkness, I counted to 60 and turned the lights back on in the reverse order, increasing their intensity to bring more light to the room. This, along with a different facial expression, signalled the end of the performance, opening the space for interaction. Several guests were alarmed when they realized that I was holding matches, fearing that I would set the gasoline alight. In the second session I believe, one guest couldn’t feel the burning smell and for the following sessions I started to place myself aligned with the central axis of the table when blowing the matches.

In the moments after the performance most people gave feedback, talking about how they felt, what they were expecting, what did the smells mean, sharing experiences related to the smells, which smells they liked the best or which ones they disliked a lot, etc. One guest in the first session, coming from an area of expertise related to sound, described the sensations the smells gave them by means of sound related terms, to overcome the linguistic barrier regarding smell and smell artistic experiences. Only after having this
experience, they felt the lack of vocabulary, as opposed to the idea of an ineffable existence. When smelling the cinnamon bark, they thought “this smell is very loud!”. As the gasoline smell arrived, they felt that that smell had reverb, feeling it in the room instead of in the object. The burning smell from the matches was delayed — the guest, thinking it wouldn’t be felt at all, felt it arrive very intensely and with short duration, synchronised with turning off the lights. Another guest described the smell of the burnt matches paired with the darkness as something deeply soothing and cleansing, claiming they would have liked to stay in that place longer. One guest said the smell of the matches made them think of Christmas season, something that, for me, was not an obvious association and cinnamon would have been a much closer association. Some guests assumed there was and underlying meaning to the smells and their sequence. I explained that the focus was the sensorial aspect of the experience, the act of feeling by itself. Despite there being the ecological concept that helped determine which smells to use. Before explaining I answered back by asking what meaning it had for them. There were descriptions of changing elements, from water to fire with a journey through the land in the middle, among others. One guest noted that they wanted to recreate the ritualized choreographed movements when passing along the objects but the distance between the stools did not allow for that. I then added more space between them in the following sessions. Another said, in a humorous tone, that they could skip that week’s meditation session. This comment made me particularly happy as I understood it as the mindfulness that the experience brought being equivalent to meditating. It also meant that people felt there was space for humour and that it wasn’t too serious. I realized I merely wanted to share happiness with people, and I was confident about the performance so the days preceding the presentation were quite calm.

The group of guests in the sixth session was the more diverse one regarding their different backgrounds. One person in that group had accompanied my processes during this thesis development and as such was more informed on what was going to happen. This gave way to a particularly interesting feedback. At the end of the session she sat there mostly listening, aware of how different her experience had been from the others. Whereas the remainder of the guests mostly tried to attribute meanings and apply pre-existing references to the smell sequence, that guest used the performance as an opportunity to focus on the sensorial experience. Although several associations came to mind, as a reflex of the smell-memory connection, there wasn’t this focus on narrative. She described her experience akin to that of Pauline Olivero’s (2017) deep-listening — deep-smelling. I am not aware of a term for smelling that works in the same subtle way as hearing and listening are differentiated from one another, but it would be appropriate here.

Overall the performance was very positive and had an enthusiastic reception by the participants. During the smelling process I myself, when performing the movements, was revisiting the processes that led to that specific moment, reliving the moments when, where and with whom I had picked up the separate contents and containers.
Figure 25 — A moment in one of the performances.
4. Conclusions

When I decided to embark on this smell journey I did so in a very joyful way. I literally wanted to try something new. Aware that there were some artists involved in the usage of smell as a medium, I ended up learning much about the cultural realm of the sense of smell and how intrinsically our life is connected to it.

Although initially doubtful of the western perspective on the hierarchy of the senses, leaving smell as one of the lesser ones, understanding the perspectives and the refute of those statements was a very interesting process. Culture is indeed a major factor in our understanding of the world and social organization. Smell, as a sense I hadn’t trained much until now, has allowed me to further destroy the walls of biased perception and thought processes. By creating a deeper connection with the occurrences of smell around me I have been able to live life in a more complete way. A heightened connection to nature, now through smell, created this feeling of *carpe diem* and mindfulness.

Capitalist society is very overwhelming, mostly through the sense of sight but also through sound. In smell I have found a way to escape this, as the simulated realities of capitalism are only starting now to manipulate smell on a larger scale.

The lack of critical smell experiences and instruction has indeed affected my capabilities of addressing this sense. Learning how different cultures relate to smell creates the opportunity of learning with the other. Aware of this, and through the study of different artists’ work, I initiated my process of understanding smell as a medium for artistic creation.

Aiming towards a performance, I wondered what it meant to be in one. How would I, as a participant of such an event, feel, act, think. Basing myself on my ethos and inspired by themes of ecology and oriental aesthetics I created a moment where people could focus on their olfactory sensations. From these experiments I intuit that, due to the lack of similar experiences there was some difficulty in the discussion on the sensations of smell. People searched for the meaning behind the performance and, due to the relation of smell and memory, they experienced past experiences in their life. Much like in Maki Ueda’s *Olfactory Labyrinth Ver.1* (2013a), my aim was to focus on smell as an experience, and not necessarily as a meaning:
The main focus is the olfactory experience rather than the scent itself. Often in olfactory installations or exhibitions, the focus is on guessing a smell or evoking memories and feelings. I think, though, that smell is, in itself, neutral. It’s the audience who attribute meanings such as "I dislike this smell" or "This is the smell I knew from my grandma’s house" after processing olfactory information in their brains. My memories are different from yours, so how can I assume that what is a "sweet smell" to me will have the same meaning to you?

Such meanings to smells are given from personal experiences and histories.

Through the process of designing and experimenting for the installation I also came to understand some things regarding the act of composing. Through the smell journey I ended up separating the proximity and distance smells. This had some implications on the tension of the performative moment. By creating the anticipation of a smell-object that no longer came close to the participants, they had to wait for what was to come and be aware of any changes in the space. Paired with the fact that the first distanced smell was gasoline, a strong chemical smell, it became (when propagation was successful) quite intense. Following that, the burning smell of the matches paired with the darkness created a momentary relief, catharsis, escape.

Maybe through this release, self-awareness and repeated experiences we can become proficient in our experiences of smell.

4.1 Future Work

Through these experiences I have broadened my artistic capabilities and understanding of the world in a way that will further inform and alter my future works. I now wish to experiment further into new works, exploring different aspects of smell. In the form of an installation I wish to focus on the spatial aspect of the olfactory experiences and understand better how to control and manipulate smell in space.

For everyone creating works with smell, there is the chance to change the collective understanding of smell. In a music concert we synchronize ourselves to the performance, our perception of rhythm is close, to a certain degree at least. How can we, through smell’s artistic experiences, connect to each other?
5. Bibliography


Bibliography


mikedash. (2016, November 20). *How bad would it have smelled in a medieval city?* Retrieved from Reddit: https://www.reddit.com/r/AskHistorians/comments/5dwk60/how_bad_would_it_have_smelled_in_a_medieval_city/da84g7z/


terminus-trantor. (2018, December 14). When Vasco da Gama came back with two ships loaded with some spices, he became filthy rich. So how valuable were these spices? E.g. in the 15th century, how much would 12 ounces of black pepper be worth or something similar? Do we have any ballpark figure. Retrieved from Reddit:
https://www.reddit.com/r/AskHistorians/comments/a6lov5/when_vasco_da_gama_came_back_with_two_ships/ebra1aq/


### 6. Annex A — Developed Tools

#### 6.1 Arduino Code for Piezo Control

```cpp
// piezo constants and variables
// pin (analog) where potentiometer is connected to
const int potControlPiezo = A6;
// value read from potentiometer
int potPiezoValue;

// pin (digital PWM) that outputs intensity for the piezo
const int pinPiezoIntensity = 6;
int piezoIntensity;

void setup() {
  pinMode(pinPiezoIntensity, OUTPUT);
  Serial.begin(9600);
  Serial.println("My Sketch has started");
}

void loop() {
  // reading from potentiometer
  potPiezoValue = analogRead(potControlPiezo);
  // mapping the analogRead values to the analogWrite 0 - 255 range
  piezoIntensity = map(potPiezoValue, 0, 1023, 0, 255);
  analogWrite(pinPiezoIntensity, piezoIntensity);
  Serial.println(piezoIntensity);
  delay(1);
}
```
Annex B

7. Annex B — Work Process

7.1 Drawings and Notes

The following pages are taken from my *thinking* folder and show many of the drawings and notes taken during the development of this thesis.
+ Dispersores autónomos
+ Dispersão por actuação humana — Corpo humano e vestes contêm linguagem
  — Dança, performance, tac-chi
+ Disposição do público
+ Composição olfactiva — Vocês e libertações no tempo
+ Ecolgia, sagrado profano, neutralidade dos actores (representados como iguans)
REUNIÃO ORIENTADOR — 08.01.2019
CARA

MUSIC FOR SOLO PERFORMER — LUCIER

CYMATHICS (for causes of piezo ultrasonic)

LISA PARK

MATERIAL INTELLIGENCE — Autistic based research

Influências musicais que não no espectro olfativo

aldeas música etnográfica

Essa do folclore — visão central ago multidão divisão do sentidos

“tocar para vir”

refletir a experiência sensorial

refletir temas ao aícs oculílias

funlume como a transportabilidade
e repetibilidade

questões pessoal

refletir e captar e sim como

CÉLESTE BOURSIER-MOGENET

JAMES BALDWIN — "I AM NOT YOUR NEGRO"

MUSA PARADISIACA

LIVEINTERFACES.ORG — PROCEEDINGS

A CULTURA DO CHEIRO

- TRADIÇÕES
- PERSPECTIVAS CULTURAIS
- CONSIDERAÇÕES ESTÉTICAS

— OS SENTIDOS NA ARTE
REUNIÃO ORIENTADOR — 29 JANEIRO 2019
[ John Cage — ao slow ao possible ]

Flores / Arranjos Florais / Floricultura
Comida — comido e o mundo / cheiro da cidade / canil e à índia

• A peaceful lemon in Zen and the art of motorcycle maintenance
• Porque é que o maringuito morre quando se cheira como nariz

CHRISTINE SUN KIU — deep sound artist

PORQUE É QUE QUERO SER EU A RESOLVER ISTO
QUE TIPO DE EXPERIÊNCIA QUERO CRIAR
PORQUE É IMPORTANTE PARA OS OUTROS

ELEVATOR PITCH

CHEIRO NÃO COMO CONSEQUÊNCIA
DE ALGUNS ACONTECIMENTOS:
- cheiro da máquina de fumo
- póquinado do eleo
relação com a escultura onde o cheiro criou uma
definida envolvente com o objecto.
O cheiro colocou o corpo no espaço
de forma que o museu não parece
focar na obra.

A arte morre quando o aborrecimento aparece

A narrativa deviria o componente museal da experiência

- qualidade da conceituação é que dá a nota
  - decidir em duas semanas —
    → local, o que, como

- Heidegger, já a dar uma aula e dir “Este pedaço para mim é
  um pôdio” — desemprego
  do objecto

- relação objecto —

O aceno artístico ao objecto — nunca o museal e
nem ao objectivo narrativo

çeiro a petróleo
DA SACOL LEÇA

. こうどう | desconstuir profundamente o ritual
REUNIÃO ORIENTADOR — 12 de Março de 2019

Cerâmica Estudada

Questões da renovação do depósito de água → proporção altura/largura da peça

A decisão entre o 17, 18 e 19 é a atitude com que se apresenta

PITCH PEA SOUP
NICOLAS COLLINS @ FAZER EM PD

"HANDEL WITH CARE"

NO RITUAL BABES SEMPRE O QUE VAI ACONTECER A SEGUNDA
MAS AINDA SEGUINDO A FAZER COM INTENSIDADE.
SE CONTINUA COM
TAL COMO NUNCA MÚSICA, QUE NOS BATE ENQUANTO BATE.
COMO A VISTA ENGANA OS OUTROS SENSÍVEIS
* UM BOLO QUE SABE A COUVE

DISPERSOR NO ESPAÇO

CHOCAR A CARRA
- Cerveja
- Cachaça
- Gin
- Flor de lício
- Feijão-pedra
- Maca
- Laranja

MORSE DE DENTES
- Bobina de feijão branco (menor) de cairl??
- Bobina de feijão branco (menor) de café
- Bobina de feijão branco (menor) de café
- Bobina de feijão branco (menor) de café
- Bobina de feijão branco (menor) de café

CUBOS DE GELATINA (ogar-ogar)

MAR — CADÁVER

MAR MORTO
VELA COMO RITUAL
VELA COMO PERCURSO
VELA COMO O TEMPO QUE PASOU
VELA COMO O CHEIRO QUE AÍ VEM

ignis fatus venit per cuprum
**Annex B**

**Work Process**

---

**Diagram**: Sketch of a process involving water flow and measurement.

**Data**:

- **t₀**: 15h00
- **L₀**: 0.25 L
- **t₁**: 15h30
- **L₁**: 0.220 L
- **C**: 0.06 L/h = 60 mL/h
- **t₀**: 15h35
- **L₀**: 0.200 L
- **t₁**: 16h05
- **L₁**: 0.20 L
- **C**: 0.16 L/h = 160 mL/h

**Note**: A decrease in flow rate affects the dispersion of the aroma.

---

**Position of Riego on the Capo, Quantity of Water above the Riego, etc.**

---

Chinese one 4 points to the down (pool).
DAR AO PÚBLICO A CAPACIDADE DE FAZER SOM

ANICKA Yi

JOSH KLINE

DAVID LOUIS ZUCKERMAN
dzuckerman1@gmail.com

MAR + ZAGARDO
FLORESTO
MUDANÇA
FLORESTO
ESPECIAIS
FILHO
CRIANÇA

INCORPORAÇÃO DO SOM PARA A AJUDAR À VISUALIZAÇÃO

• Cânones
• Lestores de K7 (ALI ONDA)
• Instrumentos
• Cozinhas de son
• Salmoves em Ésta (jardim dos virtudos)

COLUNAS DO RUI
- ESPALHAR COM MOVIMENTO
- OUVIR SENSO DA LUZ

Cime timetale / log do arde
em cheiro e a que intensidade estão.

ESPAÇO DE MÚSICA:
- CANOA MATEMATICA
- EDUARDO
- GALERIA DA BIBLIOTECA

CHEIRO DA VISTA
Annex B

— Work Process

FAZER MACERAR EM ÓLEO PARA INTENSIFICAR CHEIRO NAS USAR ELEMENTO VISUAL DAS FLORES PARA CRIAR A CONEXÃO.

Estudo Open-field

Início — legalizar mar

OSAGRADO — Cheiro evocativo de espaço de ritual

— Colocar óleo no recipiente com fumo para dispersar ao espaço
— Usar mirra, olíbano (frágeis) dada a sua constante evaporação
— Sincronizar com o batente central, intensificando a alíquota do movimento
CRIAR ANEL E CADA UM OBLES REPRESENTA UMA PAISAGEM.

REDUZIR O NÚMERO DE ANEIS
- 2 fígeos em cada

AUTONOMIZAR CADA ANEL?
- Começa e acaba cada;
  - MAR/AQUÁTICO
  - FLORESTA / FLORES
  - ESPECIARIA

PARA UM CORTE ABRUPTO DEBÊR ECOLÓGICO A FORÇA DE RUPTURA É MAIOR SE NÃO HOUVER UMA GRADUAÇÃO NA PRESENÇA HUMANA.

MÁR E LAVANDA

MAR

MAR & RÁDIO

FLORESTA

GAZOLINA

FUMOQUEIMADO [QUEIMAR ORIGINAIS]
LIMITAR O NÚMERO DE PESSOAS POR SESSÃO – 4, 5, 6 –?

RELAÇÃO EMBALAGEM – CONTEÚDO

PERCURSO, TOKONOMA, CHADO

1 - MAR (ALGAS)

2 - EUCALIPTO

3 - ÓLEO NA NEBLINA 1

4 - ÓLEO NA NEBLINA 2

5 - MADEIRA

6 - FRASCO COM FLORES

7 -

8 - QUEIMAR ALGO

9 - GASOLINA

(CERTIFICAR O PODER COM UMA EMBALAGEM DE 10L, EXMARA)

TESTAR O MÍNIMO NECESSÁRIO

MESA

159

- 237 -

h = 72 cm

(tampo da mesa)
- LÍQUIDO MEGA NÃO FUNCIONOU
- CUSCO É MUITO DISTANTE DO NARIZ
- EM BALAGENS, MÉTODOS, LAVÁIS E MAIS AÇÕIS
- ESCONDER A CABACEM
- CORRENTE O ZAR
- OS PÊLOS ESSÊNCIAIS OCORRÊM MUITO BEM NO ESPAÇO (NO VEÍCULO)
- SEPARAR AS ÁGUAS DO MAR ???
- DAR AS PESSOAS COISAS A MANIPULAR
  - CHEIROS DE MENOR ALCANCE
- FAZER UMA ESTRUTURA EM LINHA
  - TÁBUAS DE 3 METROS DE COMPRIMENTO
  - TAUZÉ EM CRUZ
- GASOLINA ADICIONAR-SE NO ESPAÇO

→ REDUZIR INTENSIDADE PERSISTE MUITO NO ESPAÇO!

TALVEZ COM UMA PANO PARA ABSORVER E ESPALHAR.
TALVEZ VERTER PARA UMA TACINHA.
PANO PARA A MESA

- MESA
  altura: 72 cm
  largura: 57 cm
  comprimento: 237 cm
  \( x = \text{dist. do canto} \)

Se a largura do pano for 150 cm, \( \frac{150 - 57}{2} = 46.5 \) cm.
\( \text{al} = 72 - 46.5 = 25.5 \) cm.
\( 237 + 2(46.5) = 237 + 93 = 330 \) cm.

\[ 150 \text{ cm} \times 334 \text{ cm} \]

CHEIROS E RECIPIENTES

1 - Taça branca (belíssima) — ALGAS/MAR
2 - Taça madeira escura — EUCALIPTO
3 - Stand de papel — CANELA
4 - Chá de til (5870) — FLORES
5 - Banquinho de pêra peti — gasolina
6 - Arome — PAPEL QUEIMADO

FEIRA DOS TECIDOS
- CAMBRAIA PRETO — 4.95€
  1.50m de largura
  65% poliéster x 35% algodão
- ATALHADO PRETO — 9.95€

SAN MARTIN
- SARJA PRETA — 9.95€
  145 cm de largura
  97% algodão x 3% lycra

A DEPRESSÃO TEM IMPLICAÇÕES SOCIO-ECONÔMICAS MUITO GRANDES PARA UM PAÍS.

[Diagrama de formas geométricas]

E A FORMULA DO PAPEL?

QUANDO ESTAR EM CASA A OUvir SWANS
4 JUNHO 2019 — REUNIÃO CARA

* Cumpra o que me comprometi!
  * O que é que eu não pude ter conhecido e não tivesse materializado este trabalho.
    * Problemas identificados que **influenciam o futuro work**.

- **Ambiente** limitativo de uso do eldor como meio a educação, etc.
  - Tiram eldor e meter outros — eu resolvi isso, em troca.