



SENSE OF S

SMELL

SCENT IN MIND

LOOKING HOW ARCHITECTS PERCEIVE A SMELL THROUGH DESIGN TECHNIQUE AND HOW SMELL AFFECTS US IN EVERYDAY LIFE.

“The most persistent memory of any space is often its smell.”¹

The nostrils can unlock the most hidden memories and rebuild a vision of an image: either of a place or an event that might have been forgotten. Architects tend to emphasise the abstraction of the space through the human senses to intensify our imagination. Creating a buildings character through “visual dimension experience”² but focusing more on intentions rather than function to achieve more meaningful project designs. They incorporate physical and emotional touch to bring our perceptions to life. It is almost seen that the architects imagine the visitors to a space as receivers, blindfolded to increase “ the value of considering other sensual dimensions of geographical experience”³ in order to understand what is around them. Humans are like complex and robust mechanisms, bristling with sensors, a fascinating factor that enables the designers to use it as a tool through designing. Although, all senses are relevant, what makes sense of smell so extraordinary?

Science has found that humans may be able to smell over one trillion scents. “ Smells are handled by the olfactory bulb, the structure in the front of the brain that sends information to the other areas of the body’s central command for further processing. Odours take a direct route to the limbic system, including the *amygdala and the *hippocampus, the regions related to emotion and memory.”⁴ Supposing the sense of smell as an influential factor, it appears that the architects focus on it at least.

Through the first part of the essay, I will investigate the invisible factor using two case studies. Focusing on how architects use the sense of smell to create a connection between space and the body. “Everyday experience is multi-sensual, though one or more senses may be dominant in a given situation.”⁵ This relation will be explained through two sensorial exhibitions which used smell as a tool employing different methods. The architects used design to question our emotions, opening us to a certain story they are trying to tell us. “The Art of the Scent” an installation held throughout 2013 in the New York Museum of Art. It focuses on celebrating the fragrance through artistic touch rather than a consumer product using powerful experience through the sense of smell. This place triggers human brain by awaking memories to create a powerful connection between the human and the object. On the other hand, the second exhibition will address smell through recreating atmosphere from the past. Evoking our sense through odour. “it can bring back memories that might otherwise never be recalled.”⁶ Truly representing Barking’s rich industrial past by experiencing the smell of fish or fizzy pop factory to send our minds two hundred years back fully. This will be presented looking at “The Barking Stink: A Scented Heritage Exhibition that took place in London in 2019.

SMELL

The second part of this essay will address the idea of how we perceive the smell in a natural environment in everyday life. It will be defined through the journey I took to understand how the sense of smell naturally created can inhabit our lives. "Geographies seeks to describe some of the features of geography of the senses and to offer some possible explanations of the changing role of the senses in everyday experiences of space and place." **7** Ordinary places can also be significant and give us specific qualities to bring up emotions or memories. The journey begins by walking towards chocolate factory 'Mars' located in Slough, a small industrial town outside London, which has produced chocolate since 1932. This experience will touch on childhood memories through the aroma of chocolate. The journey will continue, a little way up the road, to a place that provides laundry services to airlines, 'Aeroserve'. This particular smell reminded me of fresh laundry hanging in the garden distributing detergent scent. The journey around Slough will end by stopping by the Household Waste Recycling Centre which will awaken a quite different set of memories. This trip will express how the invisible factor of smell can play a huge role in the natural environment to bring our insight to the fullest and change the way we think and see.

**amygdala*

- "is a collection of cells near the base of the brain. This is where emotions are given meaning, remembered, and attached to associations and responses to them. (emotional memories)."

**hippocampus*

- "is a complex brain structure embedded deep into temporal lobe. it has a major role in learning and memory."

- 1.Pallasmaa,J. (2012). The Eyes of the Skin: Architecture and the Senses. Somerset.
- 2.Rodaway,C. (2002). Sensuous geographies : body, sense, and place. Routledge.
- 3.Rodaway,C. (2002). Sensuous geographies : body, sense, and place. Routledge.
- 4.Bradford, A., 2017. The Five (And More) Senses. [online] livescience.com. Available at: <<https://www.livescience.com/60752-human-senses.html>> [Accessed 4 December 2020].
- 5.Rodaway,C. (2002). Sensuous geographies : body, sense, and place. Routledge.
- 6.Pallasmaa,J. (2012). The Eyes of the Skin: Architecture and the Senses. Somerset.
- 7.Rodaway,C. (2002). Sensuous geographies : body, sense, and place. Routledge.





'THE ART OF SCENT'
EXHIBITION

'THE ART OF SCENT'

EXHIBITION



Figure 6: Photograph of White, minimal interior

As a human, we tend to depreciate the power of our sense of smell, concentrating more on other senses such as; a sense of sight or sense of touch. Sense of smell can profoundly influence the way we think or perceive our world. It can be surprising and very emotive through specific actions we deliver every day. "These extraneous characteristics can also shape our perception of the scent, and sometimes even shape the scent itself."⁹ Looking at 'The Art of the Scent' an installation that creates a powerful multimodal experience. "Sense of place is the mental perception connected to the inner relationship with the environment to link the feelings and perception of a person to the background and meaning of the environment. Such feelings are the main elements that lead to the changing of a space into a place which has particular emotional and behaviourism features for a specific individual."¹⁰ It can be explored in a way how the designer used a 'sense of smell' as a vital tool in the project to create this sensuous experience and turning a consumer product into art. The exhibition delivers white, pure minimal interior allowing the visitor to focus on smell without while causing minimum distraction.(F6.) Architects Diller Scofidio + Renfro, attractively defined the walls by focusing on details. Each of three walls are positioned in gentle slope with an organic-looking hollow hole.(F7.) The holes were very carefully considered throughout by designers to achieve the perfect spacious awareness for the person approaching the hole. The remote diffusion machine applies a burst of scent that attracts the individual and occupies their consciousness.(F8.) "The burst doesn't represent the scents' 'top notes' as one might expect, but more closely resembles the lingering trail of each commercial fragrance as if a woman had recently walked through the room wearing the perfume."¹¹ Using this idea throughout the pace, the architects created a strong statement on evoking emotions and sensations at this moment.

8. Stamp, J., 2013. The First Major Museum Show To Focus On Smell. [online] Smithsonian Magazine. Available at: <<https://www.smithsonianmag.com/arts-culture/the-first-major-museum-show-to-focus-on-smell-1787124/>> [Accessed 3 December 2020].

9. Pallasmaa, J. (2012). The Eyes of the Skin: Architecture and the Senses. Somerset.

10. Stamp, J., 2013. The First Major Museum Show To Focus On Smell. [online] Smithsonian Magazine. Available at: <<https://www.smithsonianmag.com/arts-culture/the-first-major-museum-show-to-focus-on-smell-1787124/>> [Accessed 3 December 2020].

11. Stamp, J., 2013. The First Major Museum Show To Focus On Smell. [online] Smithsonian Magazine. Available at: <<https://www.smithsonianmag.com/arts-culture/the-first-major-museum-show-to-focus-on-smell-1787124/>> [Accessed 3 December 2020].

*ell is the sense most associated with memory, and the icon-
in 'The Art of Scent' are likely to take visitors on their own
memory lane. But might not lead where they expect.'⁸*



Figure 7: Photograph of an organic-looking hollow hole.

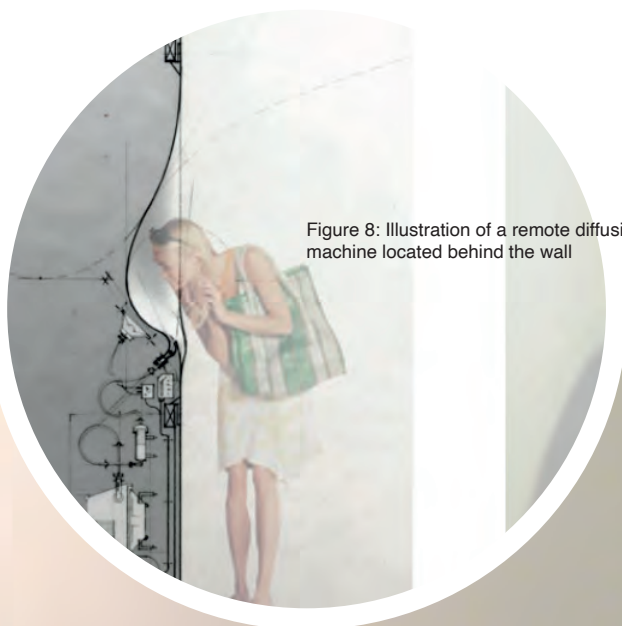
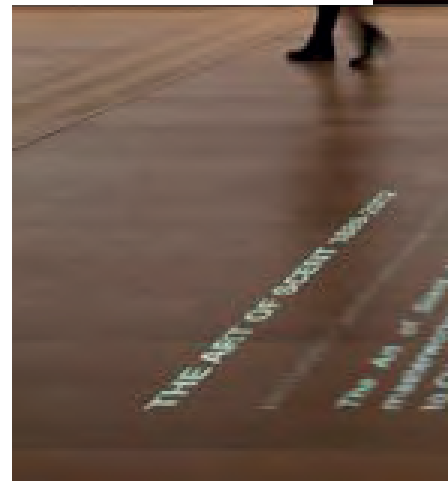


Figure 8: Illustration of a remote diffusion machine located behind the wall

We all have memories which are part of our lives. It appears through different forms: positive and negative, happiness and sadness, beautiful and joyful. These appear to be the factors and experiences that means a lot to us. It is almost as if all has been brought back with an instinct of one single breath. According to the study, these factors reflect the idea through an artistic approach by releasing the fragrance and transferring the smell into the air for a few seconds and effectively making it disappear completely. It seems that the architects allow each individual to have a personal moment of privacy to dive deep into specific sentimental memories. Scientifically research has found, "Individuals can be very different at the receptor levels, meaning that when we smell something, the receptors that are activated can be very different (from one person to the next) depending on your genome."¹² The exhibition has been designed to touch on each individual and make them feel special. They are creating unique, experiencing journey which will vary for each person through the power of smell. "The ephemerality of perfume is reinforced by the illuminated wall texts explaining each scent, which periodically disappear completely, leaving the gallery devoid of anything but pure olfactory art."¹³ beautiful touches from architect's side. Highlighting creativity even through little details on how to educate people by not disturbing the atmosphere of the interior but by bringing the idea of disappearing smell into descriptions of each fragrance. Effectively, all of these small elements leaving a space for mystery.



¹² Bates, K., 2013. No Two People Smell The Same. [online] Today.duke.edu. Available at: <<https://today.duke.edu/2013/12/hiroodor>> [Accessed 3 December 2020].

¹³ Stamp, J., 2013. The First Major Museum Show To Focus On Smell. [online] Smithsonian Magazine. Available at: <<https://www.smithsonianmag.com/arts-culture/the-first-major-museum-show-to-focus-on-smell-1787124/>> [Accessed 3 December 2020].

¹⁴ Kessler, C., 2019. Why Perfume Smells Different On Different Skins. [online] Charlotte Eye Ear Nose & Throat Associates. Available at: <<https://www.ceenta.com/news-blog/why-does-perfume-smell-different-on-my-skin>> [Accessed 6 December 2020].

¹⁵ Bradford, A., 2017. The Five (And More) Senses. [online] livescience.com. Available at: <<https://www.livescience.com/60752-human-senses.html>> [Accessed 4 December 2020].



Architects have been aware of how smell can influence us. They used an ingenious technique of displaying the fragrances in the one type of spatial quality that would truly represent them. An interior with a clear surface and temperature allowed this unforgettable experience through an emotional and physical connection between the product and human. According to science, the smell can appear in different forms caused by nature. The same perfume can appear differently on our body compared to another person. "The Potential of Hydrogen (pH) balance of your skin, how dry or oily your skin is, your hormone levels, and even your diet are all believed to affect how your body reacts when perfume is applied. Therefore, a perfume may smell wonderful on your friend but smell differently when the same amount of the same perfume is applied to your own skin."¹⁴ The exhibition truly reflects how the designers trigger our minds to connect with the smell by not worrying that it might appear differently on each person. Besides, the temperature and humidity level of the environment plays a huge role as well in a way how we perceive the smell. "For instance, when you purchase a perfume from vacation in tropical countries, you have to be aware that the smell will be perceived differently in a cold environment. The higher the temperature, the more air molecules move and the faster the fragrance spreads. Through cold temperature, the smell does not develop and will be felt differently."¹⁵ That explains why the designers created the exhibition in a certain way. They wanted to emphasise the sense of smell to the fullest to connect our minds and emotions through intrigue moments that could be lost in a natural environment.







“As the factories and mills have moved elsewhere and Barking’s waterfront is being transformed into new developments, The Barking Stink heritage project seeks to bring Barking’s industrial past back to life via the sense of smell. The project aims ‘to explore these stories via the sense of smell to bring it to life for children, young people and adults alike.’”¹⁶

‘THE BARKING STINK’

EXHIBITION



The smell of history...

150 years ago Barking was the largest fishing port in the country. Add this to the vegetable fields, the rubber works, the malshouses and the general sewage and we can see how the whole place was surrounded by strong, competing smells. The smell of the rubber, malthouse, sewage and most common; the smell of a fish.

An immersive ‘The Barking Stink’ project by the Thames Festival Trust, focused on the nastier, strongest, most pungent smells which fascinated people of all ages. The Art of Smell was aimed at sophisticated adults (in New York) and the Barking Stink targeted young local people, help them connect to the history of the community. Especially children and families. “The Thames festival history expert is using synthetics, chemicals and in some instances the really smelly stuff to show today’s generation of youngsters what their forefathers had to put up with living near the creek that runs into the Thames.” ¹⁷ Architects used an intriguing and innovative approach allowing the smell to help us with the past, focusing on odour. According to the study, one of the young visitors said, “my favourite part of this experience was to smell stinky stuff.” ¹⁸ Odour an evocative smell can recreate scenes or moments of the past to recreate the story and allow the use of our imagination. A driver of emotional responses based on learning and memory. “Like virtual architecture tailored the senses, to fully utilise the capacity of human perception and attention to be meaningful.” ¹⁹ Through the exhibition, the architects Nikki Shaili (Project Manager) and Helen Ralli (exhibition and logo designer) bring the space to life by supporting the photographs and other valuable objects by the sense of odour to truly communicate what was it like two hundred years ago. Glass jars spread across the space filled with full of unpleasant smell, which truly interacted with visitors by this experience. It was mentioned in the first case study that every individual perceive a smell differently. Therefore, this seems to be interesting to imagine how those people have been affecting by the smell introduced in the project and their instinct reactions to the smell. “There stood the middays and the sicknesses and the exhaled breath and the smoke of years, and the sweat that breaks out under armpits and makes clothes heavy, and the stale breath of mouths, and the fusel odour of sweltering feet.” ²⁰ The power of this poet representing olfactory imagery in which we can observe a clear statement of how powerful the sense of smell is. It allowed the writer to conceal the scent in words.



The exhibition was designed in such a way to focus on its action and power. Embedding the idea by allowing the public, as receivers to process the events of the past through smell. What triggers collective memory in people most is the ability to incorporate experience through senses, recreating an image in their imagination that they may never actually experienced. The great use of the technique was applied to open up the imaginations to the fullest through this invisible factor. "We have an innate capacity for remembering and imagining places. Perception, memory and imagination are in constant interaction; the domain of presence fuses into images of memory and fantasy." 21 Looking at the human body, we should be apprised to use our senses to make us aware of space and time. This evolution allowed us to extend our imaginations and memory. We are recreating something from the past or even factors that never existed before. Moreover, this beautiful factor is often forgotten by contemporary designers for its power and how it affects our lifestyle.

The exhibitions examined in both studies have the honour to remind us of how we humans perceive our world. Even the designers had the same intention by making the sense of smell the main focal point the interiors itself had a completely different approach. The Art of Scent interior was as important in a way how the smell will be perceived. White walls, clear-minded space and the environment itself had a big influence on how the smell as its released will behave within this environment. In compare, the Barking Stink was more focus on people's physical experience. Everything was about the smell to recreate stories from the past. Focusing on materiality wasn't necessary as much as the objects and facts displayed around that would support to understand each scent.

16. Thames Festival Trust, 2019. The Barking Stink: A Scented Heritage. [video] Available at:

<<https://www.youtube.com/watch?v=svZyPax2yHQ>> [Accessed 3 December 2020].

17. Brooke, M., 2019. History buff Nikki is up to her neck in a 'big stink' over Barking Creek's putrid smells. Newham Recorder, [online] Available at: <<https://www.newhamrecorder.co.uk/news/health/barking-stink-project-at-valence-house-3231130>> [Accessed 4 December 2020].

18. Thames Festival Trust, 2019. The Barking Stink: A Scented Heritage. [video] Available at:

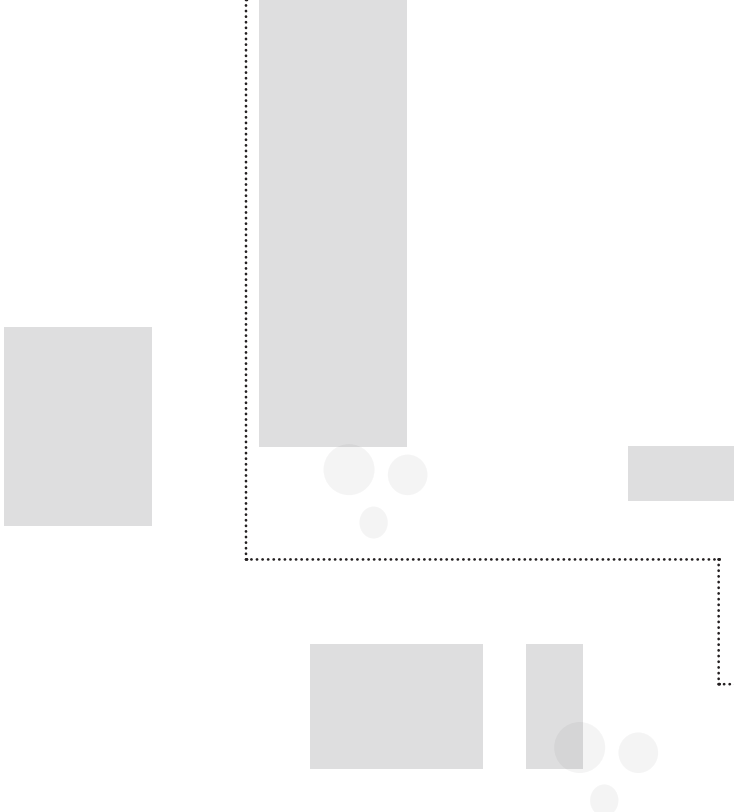
<<https://www.youtube.com/watch?v=svZyPax2yHQ>> [Accessed 3 December 2020].

19. Young, B., 2020. Perceiving Smellscapes. Pacific Philosophical Quarterly, 101(2), pp.203-223.

20. Pallasmaa, J. (2012). The Eyes of the Skin: Architecture and the Senses. Somerset.

21. Low, K., 2015. The sensuous city: Sensory methodologies in urban ethnographic research. Ethnography, 16(3), pp.295-312.

MY JOURNEY



"THERE ARE MOMENTS IN LIFE WHEN WE EXPERIENCE A LOCATION NOT BY HOW THINGS LOOK OR SOUND BUT BASED UPON THE ENVIRONMENTAL SMELLS. WE CAN ALL RECOLLECT SUCH MOMENTS, SUCH AS WHEN WE FIRST SMELLED THE OCEAN OR THE GLORIOUS SWEETNESS OF THE MIDWAY AT A COUNTY FAIR. AN INDIVIDUAL CAN EXPERIENCE PLACES AND TIMES AS HAVING A MEREOLOGICALLY COMPLEX PERDURING SMELL. WE EVEN REVISIT LOCATIONS TO RE-EXPERIENCE OUR MEMORY OF THEIR SMELL." ²²

'Smell walk' through my home town to explore its character imparted by aromas. Urban landscapes a part of physical environment not only as building structures and its functionality of modern life. It is part of human experience that create individual relationships, emotions and memories that appears on an everyday basis. What we perceive is an essential factor but what we feel is much more significant. This is why smell can appear in different forms to enhance the way we understand and what is around us. "Emotions triggered by smell experiences in places reflect individuals' evaluations of both their living environment and their existence within society."²³ All the above statements will be explained in a form of journey

²²Xiao, J., Tait, M., & Kang, J. (2020). Understanding smellscape: Sense-making of smell-triggered emotions in place. *Emotion, Space and Society*, 37, 100710.
²³Xiao, J., Tait, M., & Kang, J. (2020). Understanding smellscape: Sense-making of smell-triggered emotions in place. *Emotion, Space and Society*, 37, 100710.

'EXPLORING THE CITY THROUGH ITS SCENTS'



I begin to take...



CHOCOLATE FACTORY ;MARS'



A gentle breeze hit my face as I left the house... a smell of autumn reminded me about approaching festive season. I started walking towards the Main Street 'Farnham Road' (street with a line of small shops such as; restaurants, grocery shops and gift shops). Till this moment I could only see appearing chimney in the background of the chocolate factory 'Mars'. A massive fog coming out of chimney started to blend with the sky. I knew that I needed to get closer to the building.

On my way to the factory, I started to awake my senses of smell through little moments I had to face during the walk. "Human olfactory experience and perception of cities is often shared at the source of the smell but diverse in the places to which those smells transport the smeller."²⁴ In other words, walking around the city - the city is created and produced by us; While leading, we perceive the city space at the level of the senses, such as emotions or our imagination. Like the smell of food around the restaurant, I just past through, remind me of a Sunday dinner with my family awaking an emotion of joy and happiness. Suddenly, the smoke appeared... I realised that I was getting closer to the factory. "Since the early 1980s, the MARS factory in Berkshire produces some of the world's most popular chocolate brands. This large facility is located in Slough and has manufactured chocolate for over 70 years, with an enormous 3 million MARS bars being made there each and every day."²⁵ As I approach the factory from east side, in that moment, I felt this beautiful aroma of chocolate floating in the air. Aroma; sweetness, cocoa, roasted, fruity. Immediately, it took my mind for a journey through the past back to my childhood where every child was craving for a chocolate bar. "Secretly fished out of the cupboard at our grandparents"²⁶ this image that immediately came to my mind. A deep memory of my Grandmother who passed away, who always hidden sweets in the cupboard located in her bedroom. She always kept the key in her pocket saying; 'it safe there.' As she opened the cupboard every time, I visited her you could find a range of chocolates that you could imagine. With a smile on her face, my grandmother always gave me a small piece of chocolate after finishing my lunch.

²⁴. Mclean, K., 2014. Smell Map Narratives of Place—Paris. Nano New American Notes Online, [online] Available at: <<https://nanocrit.com/issues/issue6/smell-map-narratives-place-paris>> [Accessed 31 January 2021].

²⁵. MARS INC, 2014. MARS INC Chocolate Factory, Slough.

²⁶. Kagi, 2017. Why does chocolate make us happy? | Kagi, [online] Available at: <<https://www.kagi.com/en/magazine/chocolate-makes-you-happy>> [Accessed 31 January 2021]

"The senses are an important part of everyday experience, not just art, providing us with both information about a world around us and, through their structure and the way we use them, the senses mediate that experience."²⁷ Sometimes, what we see can bring strength to what we smell at a particular moment. The smell and image associated with it can heighten our imagination or wake up a strong memory. This happened as I walked past the 'Aeroserve' (a place that provides laundry services to airlines). Walking through a bridge I felt a specific scent which was the chemicals that floated in the air also with steam coming from the side of the building. As soon as I looked from behind of metal fence, I saw a number of trollies with tones of dirty laundry. The image I saw and the aroma I felt at that moment, reminded me of fresh laundry hanging in the garden distributing detergent scent. It wakens up emotion of happiness as it gave me an image of me as a little kid staring at my mother. However, on the other side, it mixed my emotions with sadness and compassion towards my mother. A memory how hard she worked at home and how much she cared to provide us with everything we needed at this time. "Henri Lefebvre writes: 'where an intimacy occurs between "subject" and "object", it must surely be the world of smell and the places where they reside'"²⁸



²⁷ Rodaway, C. (2002). *Sensuous geographies : body, sense, and place*. Routledge.
²⁸ Rodaway, C. (2002). *Sensuous geographies : body, sense, and place*. Routledge.



The journey around Slough will end by stopping by the Household Waste Recycling Centre, which will awaken an entirely different set of memories. I have noticed the odour from a distance. As I went closer and closer towards the place, I tried to associate the smell with memory or tried to describe in my head what I felt at this moment and wondered what kind of emotions I can attach towards this scent? "Smell can evoke rich memories, but it can also evoke tantalisingly incomplete memories. Whilst place-specific memories are common, olfaction can also give us more abstract memories of kinds of relationship and emotion, but lacking in specific location or point in time."²⁹ I knew that the unpleasant smell and odour was probably caused by the amount of rubbish located there for a long time but also its natural reaction to the environment. Even the smell was repulsive; it had some character to it. Some quality, a meaning that reminds me of something from the past but not allowing me to recreate the full image.

CONCLUSION

"On a deeper level, given that we do not have direct awareness of an objective reality but, rather, only have awareness of our own perceptions, it would seem to me that psychogeography is possibly the only kind of geography that we can actually inhabit."**30**

Sense of Smell...An invisible factor that might have been forgotten. We now understand how vital a rule it plays in our lives. All the senses are relevant but we can see how the smell can be powerful and awake the most profound emotions. It can have various approaches to how to communicate it but either way it always touches on our imagination. It has been used through a range of different techniques in the design approach allowing to create more experiential spaces and focus more on physical experience. It can be used as a way of seeing the products uniquely almost like an art to allow us to really connect with the object through uses of senses by not focusing only on visual aspect but on our minds, our emotions and on how we perceive the world. The other technique that has been discussed in this essay of how designers used a sense of smell to recreate a story from the past to allow us to understand the history from a different perspective not only through what we see. Of course, the smell can have a more substantial meaning when it is associated with a particular image to recreate an event and the atmosphere within it. The smell can even bring up our imagination to the fullest and recreate an image correlated with the smell we actually never experienced. Sensuous geographies...a smell can also bring a different form, in relation to our everyday environment. Every day we get in contact with a variety of scent that appears around us. It can be on the way to work or visiting someone else's house. This invisible factor will always be a part of our life - it is about how we perceive it. Even the odours or aroma we feel every day can take our mind on a journey through most profound memories. It can intensify our emotions and feelings that could have been forgotten.

The sense of smell still intrigues not only us people but especially designers, who nowadays create more experiential designs focusing more on physical experience through human senses.

30.Rodaway,C. (2002). *Sensuous geographies : body, sense, and place*. Routledge.



Your HUMAN SENSES

Architectural Spaces to stimulate

Sense of place

Key role in enhancing the quality of design

Objects in space around the body

Environment

Resources

Movement

Highten your awareness
in very unexpected ways.

“Abstract purpose in terms
of motion alonge path”

Journals:

- Zendehdelan, A., Pouyanfar, E., & Ahmad, H. (2013). The perception of the sense of place in public spaces' quality through the five senses;"Case study of Naqsh-e-Jahan Square, Isfahan, Iran". Journal of Basic and Applied Scientific Research, 3(2), 1012-1020.

- Aguilera J. (2015) Senses in Space: Mapping the Universe to the Human Body. In: Antona M., Stephanidis C. (eds) Universal Access in Human-Computer Interaction. Access to Interaction. UAHCI 2015. Lecture Notes in Computer Science, vol 9176. Springer, Cham. https://doi.org/10.1007/978-3-319-20681-3_16

- Vi, C. T., Ablart, D., Gatti, E., Velasco, C., & Obrist, M. (2017). Not just seeing, but also feeling art: Mid-air haptic experiences integrated in a multisensory art exhibition. International Journal of Human-Computer Studies, 108, 1-14.

Book;

Day, C. (2017). Places of the soul: Architecture and environmental design as a healing art. Routledge.

Sound

“Sound creates an experience of interiority”

Sight

“Sense of sight implies exteriority”

“Every sense can be significant in transforming the experiential qualities of interior”

“Our world radiates out from our bodies, as perceptual centres from which we see, hear, touch, taste, and smell our world”

senses system/ organs

Touch

Smell

Taste

Discovering

Feelings

Human behaviour

Emotional
Physical

Perception

Space

Time

Experience in the space

Belonging to a place

