

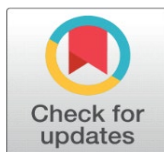
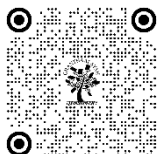


INTERIOR SPACE PERCEPTION BY PREDICTABILITY OF OLFACTORY PREFERENCES

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ABSTRACT

In contrast to other spatial perceptions, why do architects prefer to design, map, and depict the visual? In addition to the visible, immaterial, and intangible aspects of space, architecture also addresses the minimal qualities that exist between the solid and the fluid as well as the ambiguous materiality of sound and smell. The human touch and multi-sensorial connection are what make the experience more intense.

Today's building envelopes are made of tactile boundaries and visually perceptible borders that are an abstraction of the human body. This relies on vision, smell, and touch. For example, improving one's sense of smell may improve the perception of the surroundings. This is particularly intriguing because it emphasizes the significance of this sense and serves as a reminder of the possibility of sensory-sensitive information that is responsive and environment-adaptive.

Individuals have different sensory perceptions of odours, just as different people have different needs for ambient and appropriate temperatures in a location. Although each person subjectively interprets these and responds differently, an individual instantaneously receives this information of change in the environment when any of the three aspects of scent, namely flow, intensity, or duration, are disturbed or augmented.

Based on the methods used to acquire smell, data can be divided into four basic categories: observational, experimental, simulational, and generated. The intensity of a smell also fluctuates according to how far it is from its source, which will gradually wither away as time and distance pass. The study would help establish a parallel between smell and colour preferences. Researching if people's preferences for colour and smell can be classified based on fixed parameters. [McLean et al. \(2018\)](#), pp 9-19

Humans, however, can identify millions of distinct odours just by using their nose's smell receptors. So, it's an intriguing idea to incorporate smells into the process of designing a space. Although fragrances themselves cannot be represented visually and their ability to transport us to a different place and time cannot be demonstrated, they are nonetheless essential components of a setting that makes us feel at ease and at home.

Keywords: Design, Architecture, Interior

1. INTRODUCTION

Soon, two separate areas of research—increased human body sensory sensitivity and material energy for building applications—will collaborate closely. In his words, "sensorial membranes that are linked with the new geometries of architecture formed of material energy" is how human bodies should be viewed. The human body is unable to perceive the information around it and respond to it. The human body serves as a receiver of the many energies present in the environment, making them useful.

Only when one is cognizant of and present with physicality and ephemerality in their work can they have an elevated level of consciousness that leads to a multisensory experience.

How then do architects analyze and map the spatial features that these components produce? What are the impacting factors on the design process and features? In addition to complementing the choice of analogue methods and tools, computational design has grown to be associated with numerous design tools that designers have employed over time. From the conceptualization and design of complicated geometries to the construction tools and techniques, the use of these new instruments has been overpowering in achieving practically unachievable terrains for humans. When compared to actual physical drawings and models, augmented reality (AR) and virtual reality (VR) can be used as advanced tools for visualization, real-time design decisions, and speeding up the process. Sachiko Kodama, however, asserts that because digital computing is sequential, it is unable to replicate the simultaneous, dynamic development of a human response through all the senses. Therefore, her efforts investigate parallel computing that may have the ability to mimic how people react to the natural world in 2011 (Brownell).

As a result, the design of existing architectural spaces takes into account the depths, forms, and functions of the human body in terms of dimensions. According to Sean Lally, the creation of building envelopes nowadays relies on vision and touch by establishing tactile boundaries and visually perceptible edges that serve as an abstraction of the human body. The gradient boundaries of material energy can be felt at different ranges, intensities, and concentrations, therefore he sees the possibility of improving human sensory perception.

If the data obtained from the human body is calibrated, it might be utilized to influence and alter the design of buildings. A person's ability to perceive their environment may improve, for example, if their sense of smell is sharpened. This will allow them to see farther away items as well as those that are nearby. It's interesting to note that chemosensory signalling that resembles smell happens outside of the olfactory epithelium in human physiology. In other words, our bodies other than our noses also allow us to smell. Olfactory chemicals are used by our internal organs to process and respond to information about the internal environment. Knowing that our skin and other organs have a sense of smell underscores the significance of this sense and serves as a reminder of the possibility for sensory-sensitive information that is responsive and environment-adaptive.

2. OVERVIEW

Smells can alter the atmosphere of a space. A pleasant scent can make it inviting and friendly, but an unpleasant one can be unsettling. Smells have several effects on a space.

Mood: Smells can affect your mood in a variety of ways. similar to how citrus may energize you while lavender can help you unwind.

What You Think: Your perception of space might be affected by its smell. While a musty odour can make a space appear dirty, a pleasant, fresh scent might give the impression that the space is tidy and clean.

Smells might bring up memories of former events. Like how the aroma of cookies could transport you back to your house and make you feel cosy and content.

Health: Unpleasant odours might even make you feel ill, causing headaches or making it difficult to breathe. However, pleasant odours might improve your mood and make you feel better.

To influence the smell of interior space, some options include using air fresheners, scented candles, diffusers, potpourri, or plants. It is important to choose scents that are appropriate for the space and not overwhelming. Additionally, regular cleaning and ventilation can help maintain a fresh and clean smell in the space. [Gopal, & Cho \(2020\)](#), pp.31-41.

3. PROBLEM STATEMENT

As opposed to other spatial perceptions, why do architects prefer to design, map, and depict the visual? (2013) Karandinou In addition to the visible, immaterial, and intangible aspects of space, architecture also addresses the liminal qualities that exist between the solid and the fluid as well as the ambiguous materiality of sound and smell. The human touch and multisensorial connection are what make the experience more intense. in 2011 (Brownell).

'I like air structures because of the major structural element you can breathe, and it smells of violets and you can't draw it. Cedric Price, 1984

4. SCOPE OF THE STUDY

This research examines the role of odours, or the intangible materiality of odours, in architectural and spatial design. What would it imply if odour could be used as a design element in architecture? What can smell accomplish to establish a space, though? How does fragrance alter a room? These were the initial inquiries that served as the basis for this study.

With the help of clever ventilation systems, architects and construction engineers are primarily focusing on eliminating some disagreeable odours from the places they have created. Humans, however, can identify millions of distinct odours just by using their nose's smell receptors. So, it's an intriguing idea to incorporate smells into the process of designing a space. Although fragrances themselves cannot be represented visually and their ability to transport us to a different place and time cannot be demonstrated, they are nonetheless essential components of a setting that makes us feel at ease, at home, and at ease. Sometimes, the odours in an environment are to blame for the opposite emotions—fear, rage, agitation, and estrangement. When considering and creating spaces, these delicate and rather complex concerns are rarely taken into account.

An individual's needs for ambient and comfortable temperatures within a space vary, just as their sensory perception of smells does. Although each person subjectively interprets these and thus responds differently, an individual instantaneously receives this information of change in the environment when any of the three aspects of scent, namely flow, intensity, or duration, are disturbed or augmented.

The conventional wisdom holds that once a pen meets paper, it is easier to work with something physical. This reasoning also applies to scents. The depiction of odours is one part, and communicating the sensory experience of smells is another. Given that linguistic descriptors frequently rely on a material's visual qualities, smells are frequently visualized. Katelyn Lucas develops detailed guidelines for remodelling existing buildings that take odours into account in her studies. Her work includes the extensive text of specifications describing the quality of air, wind direction, smells of the plantations nearby, and the impact of heat from the sun or humidity on the passing smells that one might breathe if one were standing in that particular position, in addition to detailed construction and material specifications.

5. OLFACTORY PREFERENCES

Olfactory preferences, which refer to an individual's likes and dislikes concerning specific smells or aromas, are commonly employed as an independent variable in both psychological and sensory research. In the study of olfactory preferences, researchers frequently manipulate specific odour stimuli to gauge their impact on various dependent variables, such as mood, behaviour, and cognitive functions. There are notable connections between olfactory preferences, multisensory encounters, and cognitive memory:

Multisensory Effects: Olfactory preferences are closely intertwined with other sensory modalities like touch, sight, and sound. Olfaction is not an isolated perception, and studies have demonstrated how odour preferences can influence various sensory experiences. For example, a pleasant smell can enhance the perception of taste, while an unpleasant odour can significantly detract from the dining experience. Investigating this interaction between the sense of smell and other senses can yield insights into how multisensory experiences shape human behaviour and perception.

Cognitive Memory: Olfactory preferences are intricately linked to cognitive memory, particularly through the 'Proustian memory effect' or 'odour-evoked memories.' It is well-established that certain scents can trigger vivid and emotionally charged memories from the past. When individuals encounter a preferred odour, it can evoke associated memories, emotions, and even contextual details. Research in this area explores the relationships between olfactory preferences and various aspects of memory, including encoding, retrieval, and the emotional intensity of remembered experiences. This research illuminates the role of smell in memory storage and recall.

Associative Learning and Conditioning: Olfactory preferences also have ties to associative learning and classical conditioning. For instance, researchers can investigate how exposure to specific odours in positive or negative contexts can lead to changes in a person's olfactory preferences over time. This type of research contributes to our understanding of how preferences evolve and how they influence decision-making and behaviour.

Psychophysiological Responses: Olfactory preferences can trigger psychophysiological responses, such as alterations in heart rate, skin conductance, and brain activity. Examining these physiological responses provides valuable insights into the underlying mechanisms and their connections to cognitive processes.

In addition, the study of olfactory preferences extends beyond the realm of olfaction itself and serves as a valuable independent variable in research. Smells can evoke synesthetic experiences, translating into sensations expressed through textures and tactile perceptions.

This experience would be very different from describing a scent or odour linguistically through a simile or other literary language that may be meant to evoke the senses. When a perfume is expressed linguistically, its components are typically figuratively stated to elicit a sensuous experience without actually smelling the perfume. However, if texture were to be used to transmit perfume, the expression of the fragrance would link to the constituent palette through, for instance, its sensory weight or volatility. The worth of scent in civilization is related to cultural perception, which is different from verbal and non-verbal expressions of smell. [Lee \(2020\)](#)

6. SPACE, ARCHITECTURE, SMELL, AND BODY

Smells, which are the fleeting and intangible components of an environment, connect to a person in a very specific way that the area's form, shape, and colour fail to do. Toshiko Mori investigates how sound and smell function, inform, and alter; their impact may be felt even in the absence of a typical material artefact, making them some of the most effective 'materials' for designers to use. [Kapur \(n.d.\)](#), 16.

6.1. SPACE AND SMELL

In the past, Western society has prioritized sight over other senses and is frequently reticent to take into account other factors that are nonetheless essential to the experience of architecture, design, and habitation. Olfaction would appear to be largely unrelated to the creation of spaces, but a careful examination of cognitive, perceptual, cultural, social, planning, and anthropological phenomena would suggest that smells are not only deeply ingrained elements of places but also occasionally crucial to their definition.

Additionally, works by architects and other professionals have addressed scents about spirituality, the sanctity of religion, and the design of places of worship. The employment of smells or synthetic odours in public places is nothing new. The retail and consumer industries have developed olfactory environments that offer potential customers and buyers a distinctive shopping experience and influence them to make purchases they might not have otherwise made. In addition, there is a practice of constructing customized "olfactory landscapes" and a tendency of deodorizing venues to give visitors a sense of neutrality. A space can be nothingness, much like in relationships: Space can be felt when nothing is present. Our movement or pattern of stillness within a limited place is affected by the presence of things or nothing. The spatial ideas of depth, distance, openings, and closing assist in composing space metaphorically, but they also do so subconsciously and through prior experiences, where scents in a location may establish boundaries or make it easier for people to interact within that area. Within a setting that is always modifying and changing, the odours and the interactions between people serve as envelopes and containers. A space must interact in a way that is damaging to the temporality of these changes to be adaptive.

When it comes to interior design, it's important to consider the overall sensory experience of a space, including the scent. A well-designed space should not only look good but also feel good and smell good. It's important to choose scents that complement the other elements of the design and create the desired atmosphere.

6.2. SMELL AND STRUCTURE

The artist Ernesto Neto has dedicated three decades to crafting temporary sculptures and installations that echo the grandeur of nature. His primary medium involves intricately woven polyamide yarns, using techniques such as knitting and crocheting, resulting in an array of textures, patterns, and colours. These textile structures serve as vessels, filled with an eclectic mix of materials like spices, sand, and Styrofoam, creating immersive experiences that engage our senses of touch, sight, and scent. Neto's artistic endeavours often delve into the interplay between olfaction and spatial perception, prompting viewers to contemplate how the human body navigates these labyrinthine installations and the ways in which it stands, walks, climbs, or maintains balance within them. This unique approach to

architectural space challenges traditional boundaries. Similarly, architects have seldom explored spaces through our sensory faculties. Architect Kengo Kuma, with a special focus on scent, conceived the "Scent" pavilion as part of the Sensing Spaces exhibition at the Royal Academy of Arts in London. The pavilion aims to heighten the awareness of smell, movement, and orientation in architectural design.

Architect Makato Yokomizo and olfactory artist Maki Ueda collaborated on the creation of 'Invisible White,' a pavilion deliberately enveloped in darkness. This absence of light compels visitors to rely on their non-visual senses—touch, smell, and hearing—as navigational aids within the dimly lit environment. To guide visitors through this sensory journey, three distinct scents were employed.

Maki Ueda's 'Olfactory Labyrinth Vol.1' takes a similar approach, employing three distinct fragrances stored in small bottles, suspended from the ceiling with wicking thread. Visitors engage in an interactive experience by moving between these bottles and selecting their preferred aroma among the trio.

In 'Urban Smellscapes,' architects use scents as a tool to map cities for urban design and planning. By exploring the role of smells and odours in urban development and their influence on design choices, this project opens new possibilities for incorporating scent as a material in architectural practice. It underscores the importance of considering how a building's design and construction materials can profoundly impact the olfactory character of a space, going beyond the conventional focus on ventilation systems.

Smells can be efficiently blended with other sensory elements to produce multi-sensory settings, which can establish more specialized atmospheres. Henshaw's perspective has been about maintaining and enjoying scents, which are a part of any urban landscape or "smells-cape," as opposed to separating, deodorizing, masking, scenting, and making spaces sterile and neutral.

6.3. SMELL AND URBANSCAPES

A technique for scent mapping actual physical areas into a computerized smell-mapping system has been developed with the help of smell escapes and smell mapping. A smell vocabulary and a fragrance dictionary for Urbanscapes were developed by combining social media data, including photographs of specific locations from Flickr and Instagram and geo-referenced tweets from Twitter. Most crucially, these toolkits enable designers and city planners to consider scents in addition to lights and noises when planning urban environments, bringing the concept of "how we smell the cities" closer to people [Quercia et al. \(2015\)](#). It can be difficult to mask the odours in the area around it. Smells are odd in that they are invisible, ethereal, and can be both dynamic and static depending on the source, dissemination, and presentation of the smell. We examine the materiality of smell and the environmental factors that influence it to be able to be used as a design material when creating environments. A smell's intensity can fluctuate greatly, especially with the passage of time and the length of time it is present. The intensity of a smell also fluctuates according to how far it is from its source, which will gradually wither away as time and distance pass. There are, however, potential means of altering the strength of odours. Smells can be carried for varying lengths of time, distances, and intensities as air conveys them by changing the speed, direction, and force of airflow. The humidity or moisture content of the air is another crucial component of our environment that can affect how a person perceives smells. The way odours travel depends nearly immediately on the temperature.

Compared to colder temperatures, warmer temperatures make scents more detectable and, hence, more easily traceable. [Quercia et al. \(2015\)](#)

How many scents are employed as a material for creation by utilizing the airborne smell molecules, which are fluid in nature and easily deviated from their direction of movement?

Figure 1

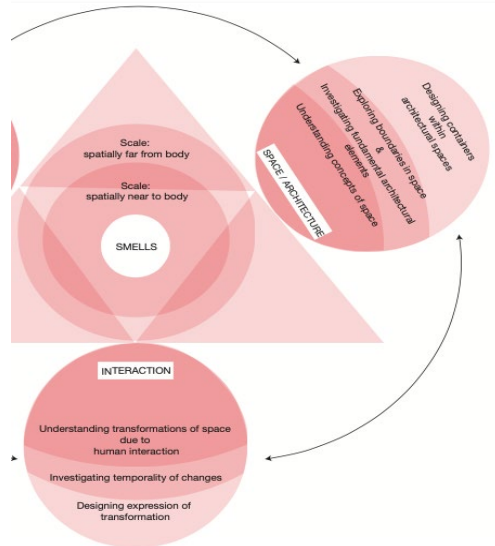


Figure 1 Interaction of Smells [Yu \(2017\)](#)

Figure 2

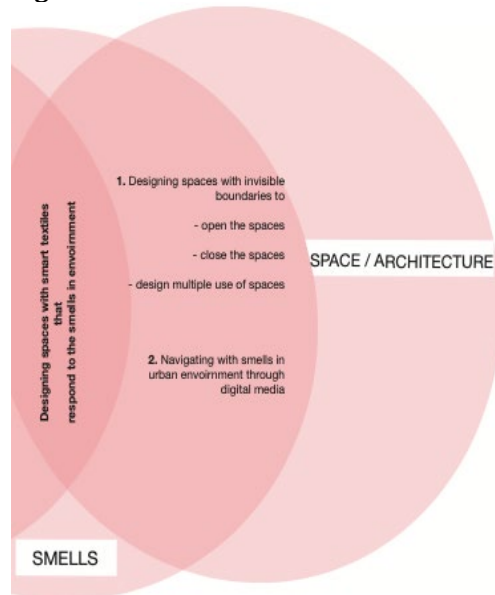


Figure 2 Interaction of Smells [Yu \(2017\)](#)

Smells can be disclosed over time and reflect the space an object has occupied by reflecting on the concepts of time and space. How to value an object's odours becomes a concern when the smells are distracting to the environment and don't accurately describe the substance. If the aromas of a place or an object were to be revealed all at once, it would be a rather quick and uninspiring way to present and

have every essence of the object at first sight, touch, or smell. Nature alerts us to yet another phenomenon, though.

We grow to love nature more and more every time we visit our favourite area while strolling through it and soaking in its natural scents. One can never be satisfied or bored while breathing in the clean, natural air, which increases our desire to return to these locations and further explore the depth of nature. Understanding how fragrances are designed through their objects may need taking a closer look at how odours are contained and disclosed in nature and its works of art. Seasonal fluctuations, including variations in temperature and humidity, can either enclose or reveal scents in a space. [Kapur \(n.d.\)](#), 20-22.

7. SMELL, RECALL, AND FEELING

Perhaps more than any other sense, the ability to smell has a strong connection to memory. Consider some of the meals you frequently ate as a kid. If your mother frequently made a lot of bread, seeing a bakery can make you remember spending afternoons in the kitchen of your childhood home, bringing back pleasant, cosy memories. On the other hand, you might detest broccoli right now since the fragrance makes you think of all the willpower struggles that took place at the dinner table.

This is why many bakeries are set up like retail stores, with bread lining the walls and propped up on tables, as any bakery owner worth their salt is aware. The loaves will lure you not just with their lovely, browned surfaces but also with their perfume. For that cosy feel, several bakeries would even leave burlap flour bags lying around. The aroma of baking bread is, of course, what sets a bakery apart from a simple bread shop. Other smells cause similar reactions in the majority of people. For instance, lavender soothes the mind. Stress, anxiety, and depression are all decreased by vanilla and chamomile. Alertness is increased by peppermint and citrus. Additionally, certain fragrances have the power to alter how someone perceives a space. A space feels bigger and airy when it is scented with things like apples and cucumbers. On the other side, barbecue smoke causes a room to feel oppressive and small. Even while purchasing odours for restaurants may seem absurd, the appropriate aromas can boost food sales by up to 300%. Scents enhanced impulse purchases by 6%, buying intention by 14.8%, and the length of a customer's stay by 15.9%, according to research from the University of Paderborn. [Yu \(2017\)](#)

8. SMELL AND COLOUR

The connection between the senses of smell and colour is intricate, as both are processed by the brain using the same sensory organs. While researchers continue to explore the precise nature of this relationship, studies have revealed noteworthy associations between these two sensory realms. Research suggests that people often associate specific colours with particular smells. For example, the colour green tends to evoke thoughts of fresh, herbal aromas, while yellow is frequently linked to citrusy or fruity scents. Similarly, the colour red often brings to mind warm and spicy fragrances, and blue is often associated with the perception of clean, aquatic scents.

Additionally, the colour of an object can sometimes influence how we perceive the strength and character of a scent. A visually appealing, brightly coloured food or beverage may lead us to perceive its scent as more robust and pleasant compared to a similar item with less visual appeal. It's important to recognize that the

relationship between smell and colour is not consistent and can be influenced by individual variations in perception and cultural associations. Consequently, this connection between these two senses is multifaceted and can exhibit considerable diversity based on individual differences and the specific circumstances in which these sensory experiences occur.

9. SMELL AND GENDER

Studies have indicated that gender can have an impact on individuals' scent preferences. Research has shown that women typically possess a heightened sense of smell compared to men, often displaying greater proficiency in recognizing and distinguishing between various scents. Moreover, gender-related differences may extend to scent preferences, with cultural and biological factors contributing to the variations observed.

For instance, some studies suggest that women may gravitate towards floral or fruity fragrances, while men might lean towards earthy or spicy scents. It's crucial to emphasize that these preferences are not universally applicable and can significantly differ from one individual to another. Cultural influences are also noteworthy in this context, as specific scents may be more closely associated with particular genders in diverse cultural settings. While gender can indeed play a role in shaping scent preferences, it's essential to recognize the significance of individual distinctions and the impact of cultural factors on these preferences.

10. SMELL AND CULTURE

The sense of smell is intricately intertwined with culture, serving as a vital element in our perception of the world and forming deep connections with our emotions, memories, and social interactions.

Diverse cultures exhibit distinct perspectives on smell, evident in their language, traditions, and customs. Notably, some cultures regard specific odours as pleasant, while others may find these same scents offensive or repulsive. Furthermore, smell is intimately connected with culinary culture. Certain aromas are closely linked to particular foods or cuisines, evoking strong cultural associations and memories. In some cultures, the skilful use of spices and herbs is deemed fundamental to cooking, with the scents of these ingredients integral to the culinary experience.

Additionally, the historical use of perfumes, incense, and scented products is prevalent in many cultures, often intertwined with religious or spiritual practices. The choice of particular fragrances can convey specific meanings or be employed to establish a particular ambience or mood. In numerous non-Western civilizations, smell has traditionally held a preeminent position among the senses. For instance, the Ongee people of the Andaman Islands base their calendar on the scents of blooming flowers throughout the year, naming each season after a distinct fragrance. Smell plays a role in defining personal identity, with individuals signifying themselves by rubbing the tip of their nose, simultaneously conveying 'me' and 'my odour.' Greetings centre around the inquiry, 'Konyune onorange-tanka?' which translates to 'How is your nose?' Responding with feeling 'heavy with odour' prompts the greeter to take a deep breath to dispel some of the excess aromas. It's even acceptable to share extra fragrance with someone lacking 'odour energy.'

Both the Senegalese Serer Ndut and the Brazilian Bororo cultures relate human identity to scent. The Bororo equate an individual's life force with their body odour

and their soul with their breath's scent. For the Ndut, two distinct scent-defined forces animate each person—one physical, tied to body and breath odour, and the other spiritual, believed to persist after death, enabling a descendant to experience it. Identifying which ancestor has taken the form of a child is determined by the similarity of the child's aroma to the deceased.

In India, smelling someone's head was a customary affectionate greeting, akin to a Western hug or kiss. An ancient Hindu text asserts, 'I will smell thee on the head,' as the ultimate expression of deep love. Comparable customs are observed in Arab nations, where speaking to someone while gently exhaling toward them symbolizes friendship and kindness. Conversely, withholding one's breath from someone signifies a dishonourable avoidance of engagement. In cultures valuing the sense of smell and viewing odour as the essence of individual identity, interpersonal 'exchanges' or 'mixing' of odours are often strictly restricted. These olfactory regulations have significant social implications, including prohibitions on sexual activity between relatives.

For instance, the Amazonian Desana tribe believes that all its members share the same odour. Consequently, spouses must be chosen from different tribal groups, as marriage is only permitted between individuals with distinct odours. This principle is evident in ritualistic exchanges involving objects with differing odours, such as one group gifting beef and receiving fish in return. Certain ceremonies even involve the exchange of ants with distinct scents. The relationship between smell and culture is intricate and multifaceted, shaping our experiences and perceptions of the world around us in profound ways. [Social Issues Research Center. \(n.d.\)](#)

11. METHODOLOGY FOR RESEARCH

Based on all the literature study of the data based on the various connections and smell. A pilot research was initiated to take the line of study ahead. Following was the methodology used

Figure 3

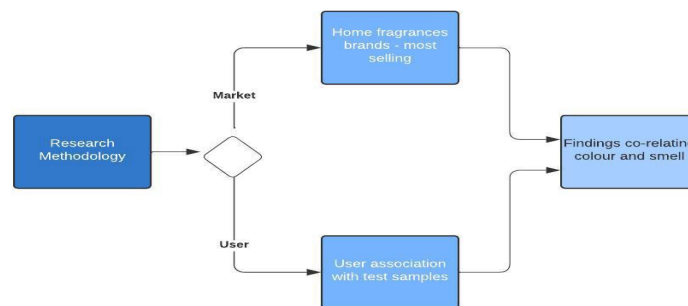


Figure 3 Research Methodology Adopted

The exploratory research carried out had 2 parts - a market survey and a user survey. In the market survey - home decor and home fragrance brands were approached to find out the most-selling fragrances in the residence category. Few brands had their own named fragrances like Nature Dive, or Fruity Floral etc. The ingredients of these fragrances were studied to know the composition and the higher percentage of fragrance used was taken up as the raw smell for user survey. Based on this approach from four home fragrance brands - the sample fragrances were selected. The samples were - Jasmine, Rose, frankincense, sandalwood, and tea tree. The second part of the survey was a user survey.

12. A RECCE AS A BASE FOR OLFACTORY PREDICTABILITY INDEX

The study was carried out on a test group of 100 plus members for a specific interior space - residences. Residences render the character of a family and their lifestyle and broadly they share similar likes and dislikes. Residences also work around peace and calm along with the day-to-day routine worked out. A place that people call home, is often an extension of their own identity and character that's translated into a space. This deep association with a space and its user is at its highest within a home and its owner. Hence the pilot study of the impact of smell and its user would be best in homes since it would be very dear to its users. It's also the space where users would be more vigilant and open to change, and add-ons based on the study outcomes.

A questionnaire enquiring about basic information along with test aromas was showcased. The residential interior function was allocated five test smells that were gathered from preliminary data based on sales of specific smells in the interior functions chosen for residence space. The smell filter paper samples were colour-coded, and the name of the aroma wasn't mentioned as this could impact the smell preference of the candidate. First and Second preference was taken from each person.

Figure 4

OLFACTORY RESPONSE IN SELECTED PEOPLE
QUESTIONNAIRE

NAME:

AGE:

GENDER: FEMALE/MALE/OTHERS

PROFESSION: WORKING/STUDENT

IF WORKING, DESIGNATION AND COMPANY-

WHAT IS YOUR FAVOURITE **COLOUR:**

WHY DO YOU LIKE THE COLOUR:

WHAT IS YOUR FAVOURITE COLOUR FOR YOUR PERSONAL SPACE?

DO YOU CONSIDER YOURSELF A **FOODIE:** YES/NO

WHAT IS YOUR FAVOURITE FOOD:

WHAT CUISINE DO YOU ENJOY:

DO YOU THINK SMELL OF THE FOOD IS WHAT ATTRACTS YOU TO IT: YES/NO

WHAT DO YOU CONSIDER A **NOSTALGIC SMELL** THAT YOU REMEMBER:

WHAT IS YOUR FAVOURITE **PERFUME:**

DO YOU USE ANY SPECIFIC FRESHNER TO MAKE A SPACE AROUND YOU COMFORTABLE:

YOUR PREFERENCE IN **INTENSITY** OF SMELL: Mild/ Strong

ANY SMELL **ALLERGIES** OR DISORIENTATIONS :

DO YOU AGREE ON HAVING A DIFFERENT SCENT IN DIFFERENT SPACES:

HOW WAS YOUR EXPERIENCE ON THIS SURVEY: GOOD/BAD

WOULD YOU RECOMMEND

CHANGES:_____

	Type	1st Preference	2nd Preference	Smell (De-coded)
Space 1				
Space 2				

Figure 4 Established Questionnaire

13.1. STUDY ON AROMA PREFERENCE IN RESIDENTIAL SPACES

Figure 5
Male Vs Female

Female	69
Male	27

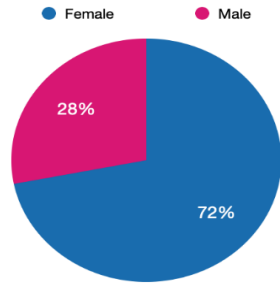


Figure 5 Gender surveyed

Figure 6

Male - Colors

Blue	13
Black	4
Green	3
Red	3
Yellow	1

● Blue ● Black ● Green ● Red ● Yellow

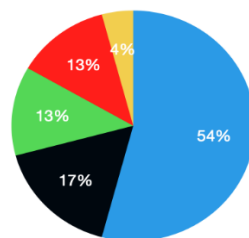


Figure 6 Male Colour Preference

Figure 7

Female - Colors

Blue	24
Red	22
Black	9
Yellow	5
Green	4

● Blue ● Red ● Black ● Yellow ● Green

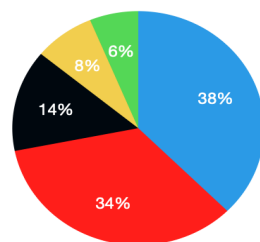


Figure 7 Female Colour Preference

Figure 8

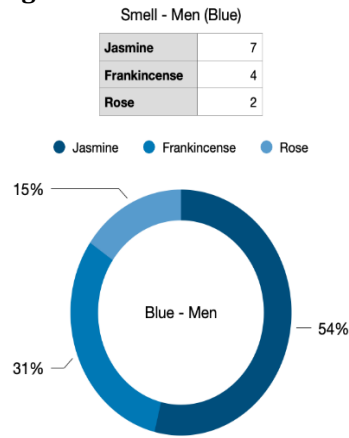


Figure 8 Male Preferred Blue, Smell Preference

Figure 9

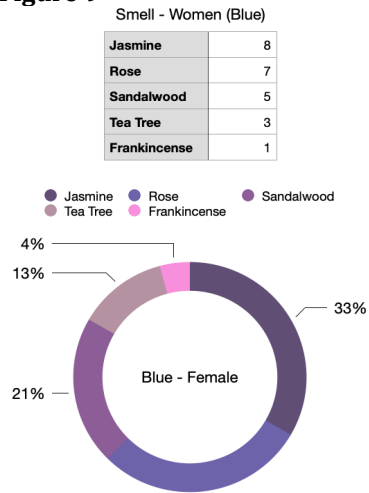


Figure 9 Female Preferred Blue, Smell Preference

Figure 10

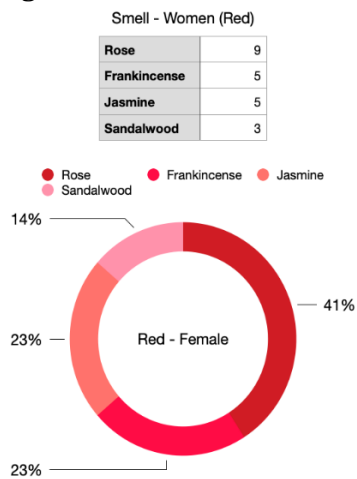


Figure 10 Female Preferred Red, Smell Preference

This study reveals that the most liked colour preference between men and women is blue for personal space and commonly the smell preference is also Jasmine followed closely by Rose aroma. The next colour preference among women is red and in this section of the study candidates inversely prefer Rose first and then Jasmine aromas for residential interior space.

13. SCOPE FOR FUTURE STUDY

The experimental study could be extended to various functions in interior spaces like offices or malls. People spend a major part of their productive time and day at an office and hence the environment needs to support their outcome and comfort levels. Productivity is dependent on the stimulus of a multi-sensory interior space, of which olfactory sense is a strong part. At a mall, there are various sections of people from visitors to workers, young to old, male, and female etc. A common aroma or smell to be established in this mixed set of people would be a challenge and can be checked with various case studies and a similar experimental study too. The findings of this study could help interior designers understand the Olfactory inclination of people in different spaces depending on the functions associated with it. A key element within the multi-sensory umbrella has the potential to be used within interior design to uplift the quality and ambience of interior spaces.

14. CONCLUSION

A detailed study was carried out based on available data on smell and its correlation with multiple factors that affect the architecture and interior space. This space that surrounds us subconsciously has an impact on the user and his reactions to the space. From memory to productivity, comfort to usability, the Olfactory sense is an integral element within the multi-sensory plethora. An arena that could work upon with much more due and importance for its unique and high-valued quality it renders to the quality of an interior space. A pilot study was carried out on a small number of test groups for residential spaces to understand if colour and smell preferences could be connected and common ground be established. An analysis of the sample number group showcased preliminary findings that the smell preferences for the interior space were common between males and females. Colour preferences for personal space are bought in the element of how the person would co-relate a selected colour within an interior space. Also, the correlation of people's colour vs. smell preference could be established with uniformity in their selection among mass numbers.

CONFLICT OF INTERESTS

None.

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None.

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