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Architecture As A Mediator Of Empathy: The Case Of The Orb Pavilion, France

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ABSTRACT: Our study explores the intricate relationship between architectural design, care, and atmospheric experiences at the intersection of architecture and psychology. Focused on understanding how on-site experiences interact with initial design intentions, we delve into specific aspects of architectural care and atmospheres.

In the latter half of the 20th century, the idea of a profound connection between architecture and human well-being gained prominence. Recently, the concept of atmosphere has emphasized the significance of sensory and affective experiences in places, highlighting the empathic link between the body and the built environment. In this article, we investigate how atmosphere studies and empathy illuminate the connections between architectural care design and on-site experiences, using André Bruyère's Orb Pavilion as a case study.

Through analyzing the architect's intentions, conducting architectural and sensory on-site analyses, we aim to demonstrate how a design team's aspirations manifest in the built environment. Our findings underscore the congruence between envisioned aspirations and the on-site experience of the Orb Pavilion, focusing on fostering courtesy, providing supportive care through architecture, and inspiring respect for dignity. We argue that the design team's dispositional empathy can permeate architecture, highlighting the importance of designers cultivating sensitivity to bodily sensations.

KEYWORDS: architectural design, empathy, spatial empathy, care, architectural atmospheres

FOREWORD

This interdisciplinary study spans multiple fields united by a common focus on sensitivity and the human experience. Marie Tesson, an architect and Ph.D. student, explores architecture as a form of care, particularly in postmodern designs aimed at fostering empathy. Angèle Pillot, a clinical psychologist who is non-sighted, investigates the affective dimension of spatial perception in her Ph.D. research. Grounded in phenomenology, her work examines how sound reflection enables the perception of surfaces and voluminous objects.

In this article, we explore integrating our research fields and methodologies to identify design processes and architectural elements that promote care. We outline the theoretical frameworks of our respective disciplines: the evolution of care-focused architecture and the study of sensory and affective experiences in atmospheres. Through a case study, we investigate whether the commented walk method, employed in atmosphere studies (Thibaud, 2022), complements the analysis of architects' intentions and architectural analysis. Specifically, we examine how studying on-site sensory and affective experiences can reveal insights into the effectiveness of design processes and architectural elements in supporting care.

INTRODUCTION

Over the past three decades, there has been a growing interest in the sensory and affective experience of architecture. This interest falls within the field of phenomenology, focusing on the twin concepts of ambiance and atmosphere. According to these concepts, the character of an environment is judged through a complex, multisensory fusion of many factors, rather than solely through visual perception, as is often assumed (Zumthor, 2006).

An atmospheric perception also involves judgements beyond the five Aristotelian senses, such as sensations of orientation, gravity, balance, stability, motion, duration, continuity, scale and illumination. This complex assessment also includes the dimension of time as experiencing implies duration and the experience fuses perception, memory and imagination (Pallasmaa 2014, 231).

Thus, the characteristics of space are experienced in an embodied, pre-reflective manner, as a diffuse whole rather than in a conscious, precise, and focused way (Pallasmaa 2014).

In recent years, advancements in cognitive sciences and neurosciences have strengthened the psychological and physiological foundations of atmospheres. For instance, Canepa and colleagues (2019) demonstrated that sensitivity to ambient variations is influenced by the perceiver's dispositional empathy; the more empathetic a person is, the greater their emotional response to changes in atmosphere. The concept of an empathic connection to the environment has been part of aesthetic theory since the late nineteenth century (Schutzeichel, 2013).

Spatial empathy describes how the body interacts with and responds to spatial elements, involving an unconscious transfer of emotions into architecture. During this process, individuals experience feelings that seem to originate not from themselves, nor as sensations of the architecture, but as inherent properties of the architecture. These feelings are perceived externally rather than internally (Cazal 2016, 471). Supporting this, Pallasmaa (2014) highlights neurological findings on mirror neurons, which help explain how external physical situations can be internalized.

Atmosphere studies place the individual's sensory and emotional experience at the center of considerations about the built environment. We explore the potential for these studies to address the challenge of designing with well-being in mind. Additionally, the concept of empathy is becoming increasingly pertinent in understanding the body-environment connection. From this perspective, two questions arise: Can the concept of atmosphere inform architectural care practices? If empathy helps us understand the body-environment link, can it also facilitate a connection between architects and users?

To address these questions, we examine a case study of André Bruyère's Orb Pavilion, analyzing the architect's intentions, the architectural elements designed to fulfill these intentions, and the on-site sensory experience.

1. METHOD

1.1 Case study

The work of André Bruyère (1917-1998), a French architect, stands out as a unique embodiment of the emerging postmodern awareness of the critical connection between architecture and human welfare. Firmly convinced that architecture can positively impact the health and well-being of its occupants, Bruyère developed an observational practice grounded in his personal experiences with existing spaces and a keen awareness of others' experiences. Demonstrating a high sensitivity to situations of vulnerability, he endeavors to create spaces he describes as 'tender' (Bruyère 1968) or 'courteous,'¹ meticulously attending to thresholds, intervals, and a diverse range of ambiances and perspectives. His commitment to combatting alienating spaces is evident in various design innovations. Over his extensive career, Bruyère consistently demonstrated inventiveness by proposing diverse spatial organizations that facilitate efficient distribution without the need for corridors (Bruyère 1975).

The Orb Pavilion, situated in Ivry-sur-Seine, was inaugurated in 1991. It responded to a call for end-of-life care proposals initiated by the AP-HP (Public Hospitals of Paris) in 1986. The facility provides care for individuals suffering from various pathologies and disabilities, compounded by advanced age and progressive loss of autonomy. At the inception of the building, the majority of residents are women, with half of them experiencing mental illness. The mortality rate stands at 5% per month. While some retain the ability to walk and talk, others have become unable to communicate or stand. Many will spend the remainder of their lives within the institution, passing away after weeks, months, or even years. They receive care from a dedicated medical and paramedical team.

André Bruyère assembled a diverse team, including a lawyer, a doctor, engineers, a journalist, and a philosopher, to conceive an 86-bed unit at the Hôpital Charles-Foix in Ivry-sur-Seine (cf. Choussat Gille 1988). Distinctive in its detachment from the existing Napoleonic hospital and emancipation from prevailing orthogonality, the design process of the Orb Pavilion was marked by meticulous consideration. Before crafting the space, Bruyère spent a day and a night in the pre-existing ward, identifying spatial dysfunctions. He addressed rectilinear corridors at Charles-Foix, aligning cell doors in an alienating manner. His approach targeted the issues of proximity leading to unpleasant smells and sounds, and the lack of hope emanating from a space deprived of perspectives, exchanges, and links to the outside world (Bruyère 1986).

Building upon these insights and previous architectural contemplations, André Bruyère and his team propose a single-story structure, generously opening onto gardens, and meticulously organized to resemble a forest. The design incorporates passages, clearings, and spaces that vary between protection and exposure, offering a rich spatial experience with diverse ceiling heights, widths, openings, and levels of intimacy. This fluid space is seamlessly interconnected, allowing easy access to various points, while providing secluded areas for tranquility without isolation from crossroads or gathering points. The architectural vision behind the Orb Pavilion aims to amplify the well-being of both patients and caregivers. Bruyère holds a deep conviction that architectural tenderness and consideration, significantly contribute to the experiences of those who frequent the space. Within the architecture of the Orb Pavilion, numerous elements of attention conceived by the architect in his personal living space are evident². Bruyère extends to others the same consideration he applies to himself in his design, creating an environment that reflects his commitment to the well-being and experience of its occupants.



Figure 1: Photo of the Orb Pavilion, showing the garden view toward the refectory from the entrance. The single-story building envelops the garden. Noteworthy features include the concrete veil overhanging from the roof to the terrace. The facades feature numerous windows, from seat height in the bedrooms to full height in the refectory. Source: (Marie Tesson 2022). **Figure 2:** The Orb Pavilion floor plan shows an H-shaped building where every area connects to the garden or a terrace. Instead of corridors, it has a continuous agora that expands and contracts, punctuated by technical boxes. Source: (Marie Tesson 2024)

1.2. Procedure

Our case study adopts an exploratory approach situated at the intersection of disciplines, field methodologies, and sensory realms. We integrated two processes. The first process, spearheaded by *the first author*, manifested as an archives analysis augmented by a spatial analysis. Grounded in archives from the André Bruyère Collection at the Institut Français d'Architecture — particularly the plans, sections, and elevations spanning various project phases — this approach distilled intentional descriptions of the forms and spatial configurations conceived by the architect. The second process, conducted by *the second author*, assumed the form of a multisensory analysis focused on the atmosphere. Leveraging the researcher's nuanced sensory experiences and the foundational principles of atmospheric research, this approach yielded an extraction of situated and dynamic perceptions through a commented walk (Thibaud 2022). These perceptions embraced volume and somaesthetic sensations, encompassing factors such as temperature, air movements, sounds, smells, and textures. For this second process, we have grounded our approach only in one sensory experience, due to the researcher's specific skills: her empirical experience of multisensoriality linked to her blindness, her scientific experience of collecting sensitive phenomenal data, her experience as a body-centred clinical psychologist.

We chose a spontaneous walk, leaving our itinerary undefined. Two constraints guided our exploration: commencing from the entrance hall and covering all spaces. Consequently, we traversed walkways, exterior access points, and common areas, delving into spaces such as the refectory, a bedroom, and a consulting room. The tour spanned an hour. We collected data — comprising observations and sensitive experiences — by documenting our on-site comments.

It should be noted that *the second author* had no information about the data collected by *the first author*. The commented walk was carried out in a naive manner in order to avoid a confirmation's bias.

2. RESULTS

Our approach juxtaposes two distinct analyses. Firstly, *the first author* gathered and analyzed André Bruyère's notes and sketches, identifying three prominent themes: supporting a feeling of courtesy, using spatial design as a supportive form of care medium, and inspiring respect for dignity. Simultaneously, *the second author* analyzed her sensory experience of the Orb Pavilion. This amalgamation forms the basis for comparison with the prevalent themes discerned from the architect's documentation. These results are presented into a discursive form in the following sections.

2.1. Supporting a feeling of courtesy

In his writings, André Bruyère emphasizes the significance he places on architecture as a conduit for interpersonal exchange. It is within this context that he emphasizes the concept of courtesy, which he aims to explore and achieve through architectural design.

From his intentions, we gather that this courtesy is defined by the creation of diverse spaces offering varying degrees of intimacy and communal interaction, and providing a feeling of familiarity as well as the establishment of a spatial rhythm.

For André Bruyère, the concepts of closeness and community can only thrive when there is a profound respect for individual privacy and uniqueness. He contends that architecture can foster this sense of courtesy by offering personal spaces within bedrooms, balanced with shared common areas, and varying degrees of intimacy in between. This design allows for both solitude and collective gatherings. Intimacy unfolds in varying degrees, ensuring that every individual discovers within the edifice and its gardens the sanctuaries that safeguard their dignity and offer solace. The lobby functions as a village square. It provides a glimpse of the patio but tactfully avoids ostentatiously revealing the life within the rooms through its expansive windows. Clear separation from the areas where the bedrooms are distributed is achieved through a bottleneck effect, creating a narrowing passage. Upon passing through, the space unfolds once more. On a sector scale, rooms are clustered around shared walkways and intermediate alcove spaces, offering an added layer of privacy and neighborliness. Residents, with their doors ajar, observe the activity in the communal space.

During the walk, *the second author* perceives spatial variations through feelings of volume. These sensations shift in accordance with the space's dimensions. She articulates a sense of envelopment when the walls draw near to

her body, and a feeling of expansion when the space opens up. These perceptions manifest not only during transitions between distinctly characterized spaces, such as moving from the first hall to a corridor, but also with each step taken, as a result of the continuous undulation of walls and ceiling. The first phenomenon engenders a “sense of intimacy” within small spaces, articulated with precision. For instance, *the second author*, while pointing out a corner within a small clearance, expressed, “I would sit here to rest in this corner.” Though unaware of the presence of an armchair beneath a window at that precise spot, her distinctive feelings resonated with a sense of intimacy—a feeling of security conducive to relaxation. A similar experience unfolded during the transition between a corridor, a single room, and an attached bathroom. Each threshold was marked by a notable contrast in the perception of volume, leading to a gradual transition into smaller spaces, correlated with an increasingly profound sense of intimacy. Consequently, throughout the walk, the perception of varying degrees of intimacy is deeply rooted in fluctuations in the sensation of volume.

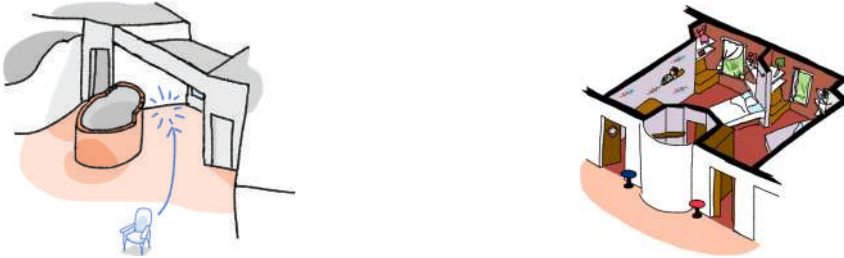


Figure 3: Perspective view of a furnished alcove in the Orb Pavilion. Positioned between two rooms, it has a lower ceiling and is concealed by a mid-height wall, bordering a central storage area. Source: (Marie Tesson 2024). **Figure 4:** Perspective view of a double bedroom in the Orb Pavilion, with each bed having its own space, garden window, seating area, furniture, adjacent door, and seating nook. The room features warm wallpaper and carpeting. Source: (Marie Tesson 2024)

For André Bruyère, establishing courtesies through intimacy requires the space to provide a feeling of familiarity, enabling individuals to find themselves, their place, and to gather. “Intimacy means having your own window, a corner with a comfortable seat, a shelf, a closet that can be opened from the bedroom as well as from the bathroom” (Bruyère n.d.-1, 47). Familiarity must be established by stimulating different senses. For instance, familiar smells, such as those from a fireplace, kitchen, or plants, should be dispersed throughout the building and garden. Every space is decorated in a home-like style, rather than a hospital style. In addition to the original four double rooms, the Orb now offers single rooms and showers resulting from the subdivision of existing rooms and shower facilities³. Initially, each room featured dual doors flanking the shower room, delineating distinct thresholds. Placed in front of each door, a stool invited individuals to sit on the doorstep, adding a unique sense of personalization. Every bed also had its designated window, allowing each patient to establish a personalized connection with the outside world. Adjacent to each window was an alcove perfectly sized to accommodate a slightly angled armchair, providing a private haven for everyone. The design ensured that even in double rooms, a high level of intimacy was maintained, thanks to the thoughtful attention given to door and window spaces. Conversely, certain areas are dedicated to fostering conditions for communal interactions. This includes the tea area, which doubles as the TV space, and the refectory. The latter stands as the sole space purposefully designed to accommodate and unite all patients and caregivers. No other space within the department achieves such a comprehensive scale, endowing the refectory with the status of a genuine foyer in this collective dwelling. Other communal areas organize groups and interpersonal relationships on smaller, more intimate/familiar scales.

During the journey, the sense of familiarity was evoked through the meaningfulness of the sensations experienced. Sounds and smells were directly recognizable and understandable, requiring no particular attention to be identified. Furthermore, there was coherence between the perceived dimensions of a space and its intended use, relative to the expectations of the second author. Common areas had larger spaces, while personal spaces offered smaller ones. This coherence also contributed to the comprehensibility of the sensations.

André Bruyère also considers rhythm in his designs. Courtesy is possible if there is a chance to get confused, to feel that the space is unpredictable, to discover different areas of the building gradually, and to recognize particular features over time. He envisions the building with a jazzy rhythm, characterized by variations in repetition and multiple intertwined stimulations.

During the walk, *the second author* articulates a sense of expansion when the space opens up. This phenomenon, intertwined with the curves of the building, is characterized by a sense of communion with the architecture. Feelings of volume undergoes continuous shifts, influencing impressions in brief moments. It appears that the architectural atmosphere harmonizes with the natural rhythm of breath and the sway of steps. These ever-changing sensations forge a localized bond between the individual and the building, sparking arousal rather than sensory monotony. A similar sense of rhythm, mediated by sensory contrasts, occurred with the presence of loudspeakers broadcasting music. Their thoughtfully scattered arrangement gives rise to nuanced fluctuations in sound intensity, ensuring that the walking space remains non-uniform throughout. This deliberate setup creates diverse soundscapes, ranging from quieter areas to more musical zones and intermediate spaces.

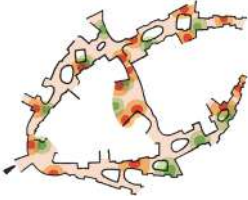


Figure 5: Floor plan of the Orb Pavilion walkways, marking red speaker points and green scent diffusers observed during our walkthrough. Some may have been overlooked. Source: (Marie Tesson 2024)

2.2. Using spatial design as a supportive form of care

André Bruyère is persuaded that architecture can play a significant role in patients' well-being. He even claims that the Orb Pavilion serves as proof of this hypothesis (Bruyère 1993(2), 5; n.d.(1), 4). We have grouped all the measures aimed at enhancing mental and physical well-being in this section. These principles are designed to influence the mind, fostering a positive and/or restorative state of mind.

André Bruyère hypothesizes that architectural uniformity isolates individuals and stifles the expression of their unique identities. To embrace diversity, spaces must abound with variety. He emphasizes the necessity of eschewing repetition and embracing imperfections, accidents, randomness, and subtleties. An inhabitable place, according to him, thrives on deliberate ambiguity. "To construct effectively, one must conceive every individual trait" (Bruyère 1976, 72). Consequently, each place becomes recognizable, facilitating orientation and personal connection, due to its distinctive shape, materiality, and sequencing.

To achieve this goal, he designs a continuous, undulating space that maintains a sense of continuity while avoiding repetition. Distinctions are made through various elements such as window position, orientation, size, and views; ceiling height; width of pathways; perspectives; materials (including bricks, concrete, plaster, marble, and carpet); color variations (including white, ochre and orange tones); temperatures; luminosity; smells; and music intensity. For instance, both the tea area and the refectory boast lofty ceilings and are centrally positioned, intersecting the walkways, yet they exhibit distinct characteristics. The TV area is demarcated from the pedestrian zone by a variably heighted low wall, featuring concealed corners and others open to curiosity. Its layout creates doorways of varying formality and offers no direct sightline to the exterior, relying on high openings for natural light. It echoes the spatial design of the now-unused fireplace area, adjacent to the former private kitchen. On the other hand, the refectory is predominantly glazed, opening onto the terrace, partially shielded by a cascading concrete veil from roof to ground. Positioned at the central bar of the H-shaped Orb plan, it serves as a spacious agora overseen by the care areas. This area is the brightest and most prominently visible within the building. During the conception of the Orb, the walls of the rooms are adorned with wallpapers of assorted hues (blue, mauve, turquoise, pink) and patterns reminiscent of grandmother-style designs; the room doors feature diverse shades of varnish and various oculus shapes, complemented by distinct curtains. In communal areas, each space boasts a unique acoustic profile crafted to instill a sense of calm. Diversity permeates every aspect as one traverses through the premises.

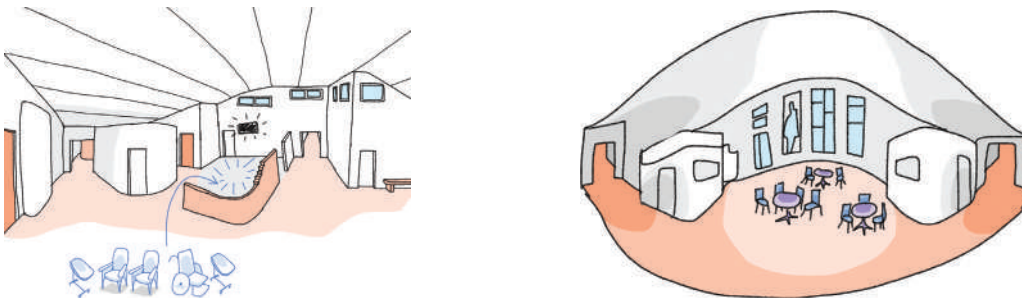


Figure 6: Perspective view of the architectural layout of the tea area, characterized by generous dimensions with high ceilings and ample width. It is defined by a low wall that ascends from chest height to human height. Source: (Marie Tesson 2024). **Figure 7:** Perspective view of the refectory space, tapered at each end and characterized by a substantial central volume. The area, enhanced by lofty windows, extends its reach to the garden and an adjoining terrace. Source: (Marie Tesson 2024)

Throughout the walk, *the second author* observed several multisensory feelings that collectively imparted a sense of being immersed in or near nature. Indeed, in certain areas, distinct scents prevail, with some spaces characterized by a strong aroma of citrus, while others exude the refreshing fragrance of eucalyptus. The intensity of these olfactory experiences varies depending on proximity to a diffuser, resulting in a nuanced sensory journey dictated by our location. Additionally, she observed a particular movement of breeze in the entrance hall, prompting spontaneous reflections on the sensation of transition: "Here, you know that you are between indoor and outdoor," she remarked. "It feels like the breeze is guiding you toward the corridor's entrance," likening it to the sensation of being in a veranda. Furthermore, in this same location, the sound of running water could be heard when the fountain's taps were opened. Moreover, *the second author* elaborated on how the curves of the building create the sensation of traversing a forest path, flanked by trees. In a forest, the diffusion of sound is irregularly shaped by the random placement and contours of vegetation. Similarly, the resonance within the corridors, experienced with each step, mirrors this chaotic arrangement. This sensory experience is especially pronounced in walking areas such as corridors, endowing them with a distinct identity tied to motion. She also emphasizes how smells, music, and contrasts in volume contribute to the creation of distinct spatialities. Within these spatial realms, the boundaries can

sometimes blur, with gradual transitions, as observed with smells. Conversely, in certain instances, the thresholds are more pronounced, particularly evident in variations in volume, such as the transition from the refectory to the corridor or from the corridor to alcoves.



Figure 8: Perspective view of the circular bench in the Orb Pavilion lobby, emphasizing key sensory elements: basin, fragrances, speakers, air currents, light, and garden view. Source: (Marie Tesson 2024). **Figure 9:** Perspective view of the fireplace area shows the undulating ceiling and various passageways. Source: (Marie Tesson 2024). **Figure 10:** Photo of the fluid space. The gloss of the plastic flooring disrupts spatial perception. The colored paint strokes are vibrant yet cool. Source: (Marie Tesson 2024)

Throughout her exploration of the Orb Pavilion, *the second author* highlighted instances of localized material simplicity. Interestingly, during the 2014 renovation at various points, materiality was streamlined by opting for smooth surfaces (plasterboard-type) instead of the original ochre brick cladding, resulting in a compound impoverishment — loss of color, texture, inertia, and resonance. On the flooring, the original dark, subtly soft nylon carpet has been substituted with a sleek, glossy grey plastic covering. This replacement is not only visually displeasing but also less comfortable and reassuring to the touch, especially considering the carpet's initial ability to provide a cushioning effect in case of falls. The bedroom doors, each originally adorned with a distinct porthole, underwent a transformation, replaced by featureless doors with no details or openings. Furthermore, the entire space underwent a repaint in white and grey, leading to the need for additional signage to guide visitors.

2.3. Inspiring respect for dignity

André Bruyère emphasizes that the pavilion should be a living space rather than just a place for treatment. Each individual should be considered primarily as an individual, with their illness or disability not defining them. This principle extends to the architectural design of a geriatric service within a hospital. To ensure dignity for everyone, whether patient or caregiver, the space must continue to serve goals, freedom, and a sense of novelty. These are essential elements for prioritizing life itself.

The floor plan of the building is meticulously designed so that each section is distinct, avoiding any sense of genericity. Paths within the building lead to open endings that provide views of the garden, alcoves for relaxation, and exits for fresh air. Each pathway is unique, turning walking into a purposeful activity rather than aimless wandering. André Bruyère, himself a former resistance member and supporter of the May 68 movement, prioritizes individual freedom through his architectural approach. He strives to keep both body and mind as liberated as possible by creating spaces that embrace diversity, resist repetition, and avoid dead-ends. To achieve this, he uses strangeness as a tool to continually surprise and challenge occupants, encouraging active engagement with their surroundings.

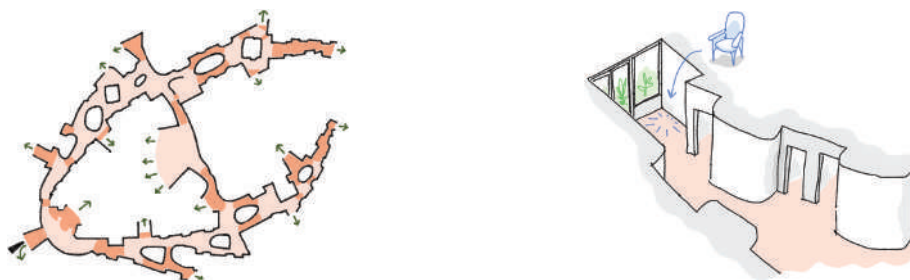


Figure 11: Floor plan of the Orb Pavilion walkways, highlighting viewpoints, direct exterior access (arrows), areas of constriction (dark), and expansion (light). Spatial dynamics continuously transform through interplays of openings, lighting variations, and bottlenecks. Source: (Marie Tesson 2024). **Figure 12:** Perspective view of an alcove in the Orb Pavilion, furnished and nestled within undulating walls, creating a secluded environment where the walkway contracts, marking the culmination of the building. Source: (Marie Tesson 2024)

During the walk, the second author emphasizes the building's relationship with its exterior. In the hall, the airy movement of the constant breeze suggests a transition between inside and outside. As one walks, the shrinking volumes of the walkways indicate approaching a door that leads outside, creating the impression that the building guides us toward exterior spaces. The sense of volume created by the continuous curves of the walkways contrasts with the sensory monotony of a straight corridor. This unusual spatial organization engages the body in the present moment, compelling it to experience these sensations locally and fostering a sense of empowerment.

3. DISCUSSION

The primary objective of this study was to explore whether the concept of atmospheres can inform architectural care practices. We hypothesize that, firstly, the concept of atmosphere can provide valuable insights into architectural care practices, and secondly, that the concept of empathy can help establish a connection between architects and users. To support our hypotheses, we present a case study investigating the relationship between the architect's intentions in designing the Orb Pavilion in France and the sensory experiences it offers to its users.

Initially, we observe that many of the architect's intentions resonate within the sensory experience of the building. According to Griffero (2020), one of the atmospheric thinkers, resonance arises from our innate predisposition to be affected by the external world. It occurs through the immediate evocation of initial impressions that shape our spatial experiences by interacting with the affective affordances embedded in the environment.

In our study, the building resonates with our physicality. For instance, the continuous curves defining the walls and ceilings synchronize with our internal rhythms; one may notice their breathing and swaying coinciding with the variations of hollows and bumps that surround them. As Raphaëlle Cazal writes in her text "Habiter":

It is a question of working towards a renewal of perceptions, which is made possible, for example, by fluid walking spaces: these spaces induce more pronounced visual distortions than rectilinear spaces and also provide hidden zones at turns that we are encouraged to discover, unlike the former where everything to be seen is given to us at once. The variety of views can also be enhanced by the spatial rhythm created by windows, which, as we move, provide us with unpredictable and changing views of the outside. (Cazal 2014, 62)

It's intriguing to observe that some of the intentions implemented in the design process of the Orb Pavilion have a sensitive resonance, likely not anticipated. These same curves, crafted with the intention of courtesy, evoke not only visual experiences but also resonate with feelings of acoustic volume. It's noteworthy that these sensations of volume exist in sighted people at a pre-reflective level (Pillot et al. 2024), suggesting that they unconsciously influence our perception of spaces.

It becomes evident that this resonance is cultivated through a deliberately multisensory aesthetic. This characteristic appears to cultivate a sense of enduring connection throughout the journey, or in simpler terms, an ongoing resonance with the building. The spatial and sensory richness of the Orb Pavilion offers a plethora of atmospheric elements that facilitate resonance between the user and the building. This perspective resonates with the concept of spatial empathy: there exists a connection between the individual immersed in an environment and the qualities inherent to that environment. The concept of empathy helps operationalize the link between an individual and the atmospheric characteristics of a place, characterizing this connection without presupposing its affective valence - it can evoke either positive or negative emotional responses. For instance, the lack of material variety in the Orb Pavilion produced a negative feeling in the second author's experience. Furthermore, if users' empathy influences the intensity of their experiences in places, as Canepa and colleagues (2019) have shown, it raises the question of the architect's empathy in the design process.

A building is the culmination of a creative process involving the psychological and cognitive efforts of the design team. It stands at the intersection of two dynamics: the transfer of the design team's intentions into the design process, and the translation of atmospheric characteristics inherent in design choices into the sensory experience of users. This perspective raises questions about the empathic skills required by designers to anticipate the atmospheric effects of their creations. Thus, we explore the possibility that architecture can mediate the empathy imparted to users during the design stage. In other words, we propose that the sensory experience of a building may reflect the empathy instilled by the architect during its design.

What is remarkable in the case of the Orb Pavilion, is the architect's empathy in comprehending the context and specific vulnerabilities of the building's users and, also, his adeptness in translating this empathy into the fabric of his architecture. His mastery in this regard turns his architectural creations into conduits of his own empathetic understanding. Two pivotal elements define this process: experimentation and observation. André Bruyère dedicated himself to the architect's quest for empathetic features, refining certain elements throughout his extensive career. For instance, his deliberate absence of corridors and emphasis on connecting private rooms with common areas showcase his commitment to fostering connections among inhabitants.

It should be notice that André Bruyère composed a multidisciplinary design team, including the influence of his daughter Isabelle Baladier, a clinical psychologist. It contributed to this reciprocal interplay of ideas.

CONCLUSION

In conclusion, we propose that studying in-situ atmospheres by collecting sensory and affective experiences can complement architectural practice analysis. This approach can highlight relevant design choices and promote architectural care as an empathetic practice.

We posit that architecture serves as a mediator of dispositional empathy between design teams and users. While empathy is crucial for architects to envision the realities of future users, addressing their needs should extend beyond mere functionality to encompass psychological well-being and the aesthetics of care. Although empathy is undoubtedly a pivotal quality fostering a caring approach in architecture, it may not be the sole determinant. Recognizing, at a personal level, the aspects of the environment that enhance well-being and empowerment is essential in translating them into a design project. This ability appears to derive from a predisposition to introspection and the observation of constructed situations and their impact. Additionally, an interest in the underlying frameworks

of thought that drive emotional resonance and care, whether through direct knowledge or interdisciplinary perspectives, can further facilitate the empathic diffusion.

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ENDNOTES

- 1 André Bruyère, "Notes", probably preliminary notes to *Pourquoi des Architectes*, (unpublished, Fonds d'archives André Bruyère de l'Ifa, n.d. [1968 ?]), 17.
- 2 Les Eyrales house, built in 1970 in Maussane-les-Alpilles in southern France by André Bruyère for himself and his partner Boba. Similar spatial features can be found in the common areas, with the ceiling of the living room evoking that of the Orb refectory, the flat basin in the entrance hall and the work around the fireplace, to name but a few examples. Similar details are also present in the apartment he adapted for Michel Piccoli in Paris's 6th arrondissement in 1965 (notably the circular bench).
- 3 When work was carried out in 2014, patients expressed the desire to have single rooms. After the renovations, many regretted their choice.

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