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Spatial relations and sensitive ambiances in the daily lives of elderly people with Alzheimer's Disease

Relações espaciais e ambiências sensíveis no cotidiano de pessoas idosas com Doença de Alzheimer

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Abstract

Starting from the premise that healthcare for elderly individuals extends beyond the patient's body to include the physical and social environment in which they are embedded, the research underlying this article sought to understand the relationship between elderly people with Alzheimer's disease and the emotional and subjective aspects stimulated by the ambiances of the places they live. The research connects lived space with concepts of identity and memory. Identity construction is understood as a continuous pursuit of understanding who we are and the meanings we attribute to ourselves; it unfolds within a temporal and social context and is strongly anchored in lived space. The research was based on ethnographic fieldwork and the daily life observation of elderly people with Alzheimer's disease living at Retiro Humboldt in Rio de Janeiro. As a result, the article highlights the importance of a sensitive ambiances approach in creating spaces and living arrangements for elderly people with Alzheimer's Disease. It emphasizes that spaces offering multisensory stimuli evoke different memory expressions, such as bodily and emotional memories, reactivating affections and emotions, contributing to the perception of quality of life, preserving self-esteem, and reducing stress and apathy often present in those with Alzheimer's disease. Thus, the study of sensitive ambiances and the perception of Place proved to be significant for evaluating the spatial experience of elderly people with Alzheimer's disease.

Keywords: Architecture of Long-Term Care Institutions. Dementia. Identity Memory. Sensitive Atmospheres.

Resumo

Partindo da premissa de que os cuidados com a saúde de pessoas idosas não se restringem ao

corpo do paciente, mas, também, ao meio físico e social em que eles estão inseridos, a pesquisa que baseou este artigo buscou compreender a relação entre pessoas com a Doença de Alzheimer e aspectos emocionais e subjetivos estimulados pelas ambiências de onde vivem. A pesquisa relaciona, espaço vivido com os conceitos de identidade e memória. Entende-se que construção identitária é uma busca constante pela compreensão de quem somos e o que significamos; ela se dá dentro de um contexto temporal e social e está fortemente ancorada no espaço vivido. A pesquisa apoiou-se em trabalho de campo de cunho etnográfico e observação do cotidiano de pessoas idosas acometidas pela Doença de Alzheimer, moradores do Retiro Humboldt, no Rio de Janeiro. Como resultado, o artigo aponta a importância de uma perspectiva voltada para ambiências sensíveis na construção de espaços e arranjos de vivência para pessoas idosas que sofrem da doença. Ressalta-se que espaços que oferecem estímulos multissensoriais instigam diferentes manifestações de memórias, como as corporais e emocionais, sendo capaz de reativar afetos, emoções e contribuindo com a percepção de qualidade de vida, preservando a autoestima, reduzindo o estresse e a apatia muitas vezes presentes em pessoas acometidas pela doença. O estudo das ambiências mostrou-se importante para avaliar a experiência espacial de pacientes com a Doença de Alzheimer.

Palavras-chave: Atmosferas sensíveis. Arquitetura de Instituições de Longa Permanência de Idosos. Demência. Identidade. Memória.

Introduction

To seek empathy toward a person with Alzheimer’s Disease (AD)⁴, one must imagine the anguish of waking up and not knowing where one is; of recognizing a person yet not remembering who they are; of searching through memories only to find forgetfulness and uncertainty. This anguish occurs because memory is a fundamental part of our relationship with the world, establishing the references that allow us to understand who we are, what we feel, how we live, the people we interact with, the places we inhabit, and everything that surrounds us. Candau (2011) explains that we rely on our memories to continually construct our personal history and that we actively search the past for the events we wish to associate with the construction of our identity, both in relation to others and to ourselves.

When we refer to the construction of our life story and our sense of self, we are referring to what Ricoeur (1990) defines as “identity”, an uninterrupted process that seeks to give meaning to the understanding we have of ourselves within a historical, social, and cultural context. Thus, the concept of identity encompasses this recognition of oneself as an “egological” matrix, through which temporality and one’s position in the world are organized. Faia (2002, p. 214) reinforces this notion by stating that “[...] identity is a construction in permanent becoming, a consciousness of self and of its respective temporality”.

If, on the one hand, we understand memory as part of the means by which identity is constructed, on the other hand, we also affirm that the spatial environment is an important support for our memories, as it carries the capacity to anchor the past in a continuous construction of the present. Halbwachs (1990, p. 132) emphasizes that,

Our material surroundings bear, at the same time, our mark and that of others. Our home, our furniture, and the way in which they are arranged – the organization of the rooms in which we live – remind us of our family and the friends we usually saw within that setting.

When discussing the experience of the spatial environment as a support for the psychic work of memory and identity, our approach must be guided by the study of ambiances. The concept of *ambience* encompasses a set of material and immaterial attributes of the spatial environment and

⁴ Throughout this paper we will use the abbreviation “AD” to refer to Alzheimer’s Disease.

takes into account aspects that evoke affections and sensitive memories, and that contribute to the construction of identity (Duarte *et al.*, 2022).

Although the environment serves as an anchor for our memories, time can distance it from our consciousness, and our capacity to recall changes over the years. Furthermore, there are diseases that affect memory and consequently alter a person's relationship with the world and with themselves.

The research presented here focused on older adults affected by AD. Among its objectives were to approach the concept of ambience from the perspective of individuals with AD; to identify memory classifications and sensory aspects in their relationship with ambience; to map the relationship between older adults with AD and the spaces they inhabit; and to identify the attributes that contribute to the recognition of identity and, consequently, to the perception of quality of life (Ceccon, 2021).

On Alzheimer's Disease

Alzheimer's Disease is one of several types of dementia that primarily affect elderly individuals. According to Gallucci Neto, Tamelini, and Forlenza (2005, p. 119), "[...] the dementia syndromes are characterized by the presence of a progressive deficit in cognitive function, with greater emphasis on memory loss and interference in social and occupational activities".

The number of people over 60 years old and the age group of centenarians are increasing and irreversible, already totaling 962 million individuals. By 2100, this number will triple, reaching approximately 3.1 billion (Organização das Nações Unidas, 2017). The growth of the elderly population worldwide brings new opportunities and also new challenges. Neurodegenerative diseases such as dementias become more recurrent, are the main causes of dependency and morbidity among the elderly and are a major concern attention for global healthcare systems.

Among the most frequent types of dementia diagnosed in elderly individuals are Vascular Dementia, Lewy Body Dementia, Frontotemporal Dementia, Parkinsonian Dementias, and Alzheimer's Disease (Organização Mundial da Saúde, 2023).

Alzheimer's Disease accounts for about 60-70% of cases and has reached epidemic proportions (Alzheimer's Disease International, 2009). It is estimated that a new case of AD is detected every 3.2 seconds worldwide, and by 2050, there will be a new case every second, or 86,400 new cases of the disease per day. Probably, by the time this article is concluded, thousands of families will have received a diagnosis of the disease in one of their members, with their lives and routines transformed for years to come.

In short, AD alters brain function by causing a series of deficits and changes that affect cognition and behavior. The most striking cognitive deficit is the progressive and irreversible loss of memory, especially short-term memory (Imsero, 2013; Borges, 2016). It is important to emphasize that as the disease progresses and worsens, other parts of the brain are also affected, and the elderly person begins to experience impairments in planning ability, language, movement, or feeding, as well as misinterpretations of visual or auditory stimuli and other cognitive functions.

Throughout its course, the person with AD goes through three stages: initial, intermediate, and advanced. In the initial stage, difficulties are observed in remembering names; lack of attention; temporal disorientation; spatial disorientation; distrust of people; behaviors such as hiding objects in inappropriate places; apathy, and social withdrawal (Borges, 2016).

In the intermediate stage, there is a marked loss of short-term and even long-term memory; reduced verbal and logical reasoning skills; repetitive gestures; behavioral changes;

sleep disturbances; urinary incontinence, and a high level of dependency on family members and caregivers.

Finally, in the advanced stage of the disease, the elderly person shows constant irritability; no longer recognizes others; completely loses bladder and bowel control; worsens in walking, swallowing, and speaking abilities; loses weight and becomes more vulnerable to infections and pulmonary diseases.

There is still no cure for AD, meaning that no treatment can reverse or eradicate the disease. However, pharmacological and non-pharmacological treatments are available to delay and mitigate its effects. Among non-pharmacological approaches, physical environments are considered an essential aspect in prolonging independence and meeting some of the many needs of people with AD (Imsero, 2013).

Believing that ambiances can influence not only comfort but also the emotional, sensory, and affective quality of life of older adults with AD, the research underlying this article sought to explore how ambiances promote stimuli capable of activating memories and sensations directly linked to recollection, helping the person with AD to (re)connect with their stories, preferences, values, and affections.

Conceptual refinements

Ambiances can be defined as a spatial set that includes physical, immaterial, sensorial, fluid, and dynamic particularities, generating both material and moral atmospheres (Duarte; Pinheiro, 2020). These atmospheres influence the behavior and sensations of their occupants, predisposing them to a process of Place Shaping (Duarte, 2013b). The concept of Ambiances gives completeness to the spatial environment, as it brings with it the idea of an inseparable set of physical, cultural, subjective, and sensitive aspects. Ambiances are constructed through individual and collective experiences, bringing affective connotations to spaces. As Duarte (2015) teaches, when affective communion occurs between the user and the ambience – without the intention of dominance – we reach an affective tone that grants the individual familiarity, identification, and affection toward the Place.

Ambiances are, therefore, an important documentary source for architects. Observing space means learning from its users. In the context of AD, we recognize the urgency of “closer and more internal perspective” (Magnani, 2002) on the reality of the constant relationship between people living with the disease and the spaces they inhabit.

Memory is another key concept for developing the discussions presented here. It is a fundamental cognitive function for interacting with the world, participating in processes of learning, perception, speech, action, and experience. There is not only one type of memory nor a single model to represent it. The concept of memory is broad – beyond our recollections and forgetfulness, it carries a representation of the past that influences our present actions and behaviors. We are constantly “consulting” our memories. As Uglione and Duarte (2011) explain, memory is an eternal beginning. As a psychological process, it rewrites itself with every new life event and refers to how we relate to ourselves and the world around us.

In an objective and schematic way, Izquierdo (1989) defines memory as the storage and recall of information through experiences. The acquisition of memories occurs through the learning processes and situations we live through. They are representations of what we see and feel. Just as we have countless experiences, we also have countless memories. The variety of memory types

is vast. Consequently, the capacity to acquire, store, and recall information is inherent to many cerebral areas or subsystems and is not an exclusive function of any single area.

Therefore, defining the concept of memory is like trying to hit a moving target, as it depends not only on the field of knowledge but also on theoretical perspectives. Within the scope of this article, it is important to emphasize that we have diverse memories, and they encompass recollections and forgetting. It is not possible to remember everything we experience. Thus, we all choose – or are influenced by – what we remember or forget. We agree with Zeisel (2009), who argues that a person with AD ceases to express their desires in the way we are accustomed to. Many become more creative, perceptive, and gain sharper emotional intelligence. The author reinforces that memories are not stored in a single part of the brain, as if they were stored on a DVD. We store attributes of lived experiences in multiple brain regions – color in one place, faces in another, emotions elsewhere. Later, a cerebral function acts as a trigger: “Art, music, environment, and communication help these memories to reappear” (Zeisel, 2009, p. 5, our translation).

Investigating the various classifications of memory, we find in the definitions of bodily memory encompasses the ability to use the body as a means of acquiring, recording, and recalling experiences. Within this study, we explored the potential of bodily memory from two perspectives presented by Fuchs (2012): (1) the triggering of recollections of past experiences that may be re-experienced through sensations and not necessarily recalled explicitly or consciously; and (2) the performance of present activities or daily tasks within the spatial and temporal context being experienced.

Among the categories of bodily memory listed by Fuchs (2012), we understand the relationship between situational memory and the multisensory interaction of our body with spaces, confirming that our experiences with the environment are fundamental to the memories we build. These are the individual and collective experiences of each place we pass through and inhabit throughout life that constitute what we are able to do and express today.

Another category of memory addressed in the research and in this article is emotional memory – an important mechanism for storing information, since when we are under the influence of an emotion (positive or negative), we become more attentive and, therefore, capable of retaining more details of the experience.

The concept of identity, in turn, is understood here through the lens of Ricoeur (1990), who proposes that identity construction is a constant search for understanding who we are and what we signify within a temporal and social context that gives meaning to our situation in the world. Memory, as we have seen, is a complex concept with multiple approaches and is directly related to AD, since individuals affected by the disease progressively lose their ability to recall.

The central issue when addressing Alzheimer’s Disease is “memory loss”, a defining feature of the condition that is often treated in common sense as synonymous with “loss of identity”. The classification of primary symptoms and their consequences discussed by Zeisel (2009) encouraged us to understand that memory loss is part of the disease’s context, but not a singular or isolated issue.

Methodological procedures and field research

In our research laboratory⁵, we do not conduct ethnographies as anthropologists do, but we understand that an ethnographic approach provides information that transcends the form and

⁵ Architecture, Subjectivity and Culture Laboratory / PROARQ, UFRJ www.lasc.fau.ufrj.br

function of environments. Immersion in the field and participant observation bring forth a wide range of experiences, values, affections, and meanings mediated by space. Thus, we renounce questionnaires and focus on speech, narratives, sensitive reactions, and close observation of spatial organizations. The research that underlies this text was based on fieldwork carried out at Retiro Humboldt, in Rio de Janeiro, a private institution founded by the Humboldt Benevolent Society in 1935.

It should be noted that Retiro Humboldt is an *Instituição de Longa Permanência do Idoso* (ILPI, Long-Term Care Institution for Elders), whose operating regulations are established by the Collegiate Board Resolution (RDC) 502, dated May 27th, 2021. However, although its operation and parameters are defined by federal standards, we know that there are significant differences among ILPIs across the country due to public or private resources, the regions in which they are located, and the supporting or non-supporting organizations. Nevertheless, it must be kept in mind that an older person who moves into an ILPI inevitably experiences a spatial and social trauma (Duarte; Uglione; Vilaça, 2012) when facing a new situation, a new place, new cohabitations, and separation from those they lived with. As Costa and Mercadante (2013, p. 217) state:

[...] they need to construct a new way of living, with rules, norms, schedules, and new relationships. This new mode of life, conditioned and determined by the institutions, entails certain behavioral changes in residents, potentially distorting their identity and affecting their individuality.

The management of Retiro Humboldt seems sensitive to this issue and establishes familiarization procedures to mitigate the impact of relocating older adults. Each resident may bring their own furniture and personal belongings to their new space and receive family visits.

To conduct this case study, we used the techniques of participant observation, ethnotopographic analysis, and ethnographic notes. During the study, it was possible to follow everyday dynamics, witness festive moments, and, above all, maintain close contact with our informants.

Fieldwork took place over one year and allowed us to observe the residents' routines and the dynamics of the institution. In the field, we sought to analyze the relationships and experiences of older people with their environments and collect records of affective memories. In this sense, the ethnographic approach, through the lens of architecture, is established as a fundamental perspective for understanding the attributes of environments and for generating strategies to promote the quality of life of these individuals.

The physical and organizational structures of Retiro Humboldt consist of pavilions containing each resident's individual space – bedroom, living room, and bathroom – as well as collective areas: dining hall; physiotherapy room; TV room; gourmet area; activity and occupational therapy room (the so-called blue house); library; greenhouse; solarium; multipurpose room; and gardens, in addition to intensive care areas such as pre-infirmarium and infirmarium. The institution has an interdisciplinary team composed of a physician, head nurse, physiotherapist, nutritionist, social worker, occupational therapist, and staff responsible for maintenance, conservation, and security.

Throughout the research, it was found that each of these spaces plays a distinct role in the daily dynamics and experiences of each resident. Every day, residents can participate in activities aimed at stimulating cognition. Collective activities are also offered, such as dance, games, handicraft classes, ecumenical services, themed parties, monthly birthday celebrations, movie sessions, among others.

Our field observations encompassed all actors within the institution, including residents, caregivers, administrative staff, and occasional visitors. However, four informants with AD participated more intensively in the ethnography of place dynamics, allowing for a “closer and more internal perspective” (Magnani, 2002) on the relationship between older adults with AD and their living spaces. This group consisted of women aged between 86 and 92, whose legal guardians authorized us to ask questions, take photographs, and accompany all their activities by signing the Consent Form, as detailed in the research project approved by the Brazil Platform Ethics Committee⁶ and by the Institution.

We observed daily activities, focusing on the following aspects of the informants’ relationship with space: (1) routes frequently taken, whether or not with a specific motivation or destination; (2) most visited places, most frequent activities, and sensitive reactions evoked by the experiences; (3) habits and routine actions; and (4) stories, narratives, memories, and expressions of attachment or aversion.

Living with our informants led us to agree with Charras (2012) and Fischer (1994), who argue that individuals’ sociocultural values are also important in determining how a place is experienced. Indeed, each person is unique, with preferences and beliefs, and we understand it is important to reiterate that being affected by AD does not alter one’s individuality. People with AD do not become identical or share the same needs. Observation of the spaces frequented by our informants confirmed the close relationship between the singular characteristics of each individual with AD and the lived space.

We noticed that the ambiances of the spaces transform daily for our informants. Their reactions to the ambiances that shape their routines influence each life differently. While some saw participation in collective activities as moments of sociability and distraction, others found them uncomfortable or appealing only when something specific aroused their interest; while a certain space evoked memories in some due to its colors, others were moved by sounds, smells, or even the wind, capable of triggering recollections and emotions.

We also sought to understand, from the perspective of the older person with AD, the concepts of memory and identity, relating these to the understanding of ambiances, conceived as all tangible and intangible stimuli that affect the way we feel, interpret, and interact within a space (Duarte, 2013a). We always bore in mind that older people with AD are not confined to their lack of memory (Zeisel, 2009). Much of their personality, habits, and preferences still remain, with great potential to be stimulated through interaction with their surroundings. We observed that, despite the institutional rules, residents in general – and our informants in particular – freely express their choices and personal tastes. Repulsion, dissatisfaction, gratitude, joys, and every reaction in daily life, as well as the opportunity to voice opinions, emerged as strategies through which older adults construct, for themselves, a sense of belonging and recognition within the social environment.

Results, analyses, and discussions

Based on the observation of our informants’ experiences within the ambiances of Retiro Humboldt, we found that – although time irreversibly destroys the mechanisms of memory – the combination of sounds, smells, spatial arrangements, artifacts, shadows, and breezes can evoke feelings and enhance the ability to recall; it can bring a sense of stability and comfort and provide

⁶ Process/opinion nº3.391.768. Photographic records of the environments, including their uses and appropriations, were necessary for subsequent analysis; however, images of the informants were not disclosed, and their names were omitted.

better quality of life – both emotional and physical – for older adults with AD. It was thus possible to verify that the external environment is a resource capable of connecting people with AD to their histories, personalities, habits, and tastes. The perception of quality of life goes beyond physical support and is also built upon our subjective relationship with spaces.

We found that, beyond its role in the coding and storage of information, emotional memory also plays a crucial role in the process of information retrieval, since when the memory of an event emerges, the feelings related to the lived experience also arise.

Throughout the field research, we were able to observe the relationship of residents with their rooms at Retiro Humboldt. Most of them are on the ground floor, and the few located on the second level have balconies and elevator access. All apartments have windows overlooking the outdoor garden or wooded area. Some rooms open onto exterior spaces and resemble houses, while others are accessed through internal corridors, similar to residential buildings. On each door there is a nameplate with the resident's name, often made by themselves in handicraft classes. Retiro Humboldt encourages residents to bring their own furniture and decorative objects and arrange them to their liking. If necessary, the institution lends available items.

We verified that some objects arranged in the residents' rooms hold significant meanings, in which memory seems to anchor itself. One of our informants was keen to point out two shelves full of books and proudly stated that she had read them all. This is one of many examples of objects that constitute tangible narratives, playing a strong role in identity reconstruction, as they remind the resident of her characteristics as a reader and an intellectual. Picture frames displaying family photos are also very common, as well as decorative and religious objects.

Many of these objects become the center of conversation and are surprising in their capacity to evoke old memories and bring forth feelings and gentle expressions instead of apathetic, lost, or confused appearances.

One of our informants welcomed us into her room and told stories about some of her belongings, building present perspectives of what she had experienced in the past: the table, inherited from her father, had a small crack and had been rejected by her siblings, but she insisted on bringing it to her new home anyway. The mandala hanging on the wall was a gift of recognition and gratitude and reminded her of the foreign friend who helped her adapt to the language when she first arrived in Brazil. The photograph of the cactus that bloomed only once made her relive the extraordinary event that happened on a full moon night and was recorded by her nephew.

Another informant, when asked about the origin of a photograph on the wall, sighed wistfully and told us that the man beside her was her husband and that it was her hometown. She also expressed a wish to go to Manaus, but said it was too far, smiled playfully, and gave up.

We witnessed a moment when the daughter of one of the informants brought a painting that had been in their residence in São Paulo, where she was born and lived until her wedding day. Even with visible memory loss, she immediately recalled the place where the painting had hung and the atmosphere around it. She remembered the layout of the rooms, the name of the street, the surroundings, and told stories about the "wonderful" time she had lived as a young woman. She said she had been a teacher, that she used to walk to work, and described in detail the route she took daily to the school where she taught. At that point, her daughter explained that she had mixed two periods of life, as she had taught, already married, in Brasília, where she lived for a year when the city was still under construction.

Another informant, looking at her plant pots, pointed to the orchid and remembered in which farm it had been bought. Then she pointed to a heart-shaped cactus and a succulent, saying that they had been gifts from her daughter and granddaughter.

We observed that some objects encouraged the informants to talk about their origins, hometown, remarkable places, and situations they had experienced in earlier moments of life, evoking long-term memory. However, temporal disorientation sometimes destabilized their sense of the present, and the memories became confused. As Sava (2014) has shown, we also observed that after the effort of recalling, emotions remained.

In several studies on Alzheimer's Disease and residential or institutional environments, there is an almost unanimous understanding of the importance of personalizing environments (Charras; Eynard; Viatour, 2016; Davis *et al.*, 2012; Zeisel, 2009). In the field, we confirmed that the artifacts that personalize our informants' dwellings fulfill far more than their practical and decorative functions. They serve as support for memory and often as mirrors of moments of life trajectories, identities, and values (Damazio, 2005). We found that memories are constructed through spatial and situational references and are connected to places and events (Pallasmaa, 2018).

Supported by the ideas of Charras (2012), Zeisel (2009), and Lawton (1991), and convinced that the ambiances approach not only brings a sensitive view of people's relationship with spaces but also helps outline more effective care strategies for older adults with AD, we sought a perspective that correlated emotions, senses, and memory with the experiences within the ambiances of each space in Retiro Humboldt.

By observing both our informants and other residents, we identified some spaces that gained more significance in the daily life of all actors in Retiro Humboldt. The immersive field research identified as notable ambiances those that seemed to most affect the users, either by their behavior in these places or by the way they referred to them in their narratives, such as the dining hall, the Blue House, the solarium, and the gardens. Other places did not arouse as much interest, such as the gourmet area, the ecumenical space, and the climate-controlled room. We sought to analyze each of them in their sensory aspects to understand their meanings and characterize the ambiances they created.

We discovered, for example, that the dining hall is the temporal pendulum that sets the rhythm of Retiro Humboldt. Like a beating heart, the dining hall attracts the users and, in its own time, disperses them rhythmically. It is the place that marks – with smells and the ringing of the bell calling for meals – the moments of the day: breakfast, lunch, afternoon tea, and evening soup. The dining hall is the neural point that creates temporal references, bringing the ambience of food aromas, chatting voices, clattering cutlery, followed by the silence of pause and the time when it hosts no people or activity.

The research led us to understand the importance of this temporal pendulum for the residents' bodily awareness. We noted that the relationship with time among older adults with AD is very peculiar: the present is lived intensely, but temporal references are not those that people without AD are used to relying on to orient themselves. There is difficulty in knowing the day, date, or time. Time is measured by routine and by the now.

In turn, we noticed that the blue house (a kind of handicraft studio) is both a stopping and a passing point, while other spaces at Retiro Humboldt are more private and less frequented. When activities take place in the blue house, residents are focused and pay great attention to the given task, and there are moments of silence for some time. The ambiances of the blue house alternate and transform the spaces and sensations according to the proposed activity of the day. If it is a

music session, the lights are off, and the central table is removed. If it is a cognitive stimulation activity, the lights are on, and participants are attentive. The silence is sometimes so profound that it draws attention even when entering on tiptoe. If it is a game activity, there is chatter, complaint, excitement, and great animation. And nothing compares to bingo time and the distribution of prizes to the winners!

The ambiances of the solarium, on the other hand, are serene. It is an intimate and introspective place. Not much conversation takes place there: tables are spread apart, and one can see, hear, and feel the closeness of nature. Despite being introspective, its atmosphere is inviting. There are no walls or windows, allowing nature to seem to enter and merge with the space. The solarium appeared to us as a place of pause, where time feels suspended. Unlike the dining hall, where rhythm marks the hours through its activities, in the solarium one does not feel time passing. The sound of the pond's fountain, the birdsong, the wind and the breeze, the shadow contrasting with the sun shining on the surrounding gardens – all create a restful ambience, an intimate atmosphere that invites rest and contemplation. However, its atmosphere changes completely on festive days. There, Christmas celebrations, June festivals, and literary fairs are held. On such occasions, everyone gathers; they are encouraged to sing and dance alongside caregivers and nurses.

The ambiances of the ecumenical space also change according to events but are usually quiet and little frequented. Located on the ground floor of the infirmary, this space has only one window, always with curtains closed, preventing direct sunlight. The walls are light-colored, but from afar one can see a contrasting color behind the altar that draws attention and becomes the focal point in the neutral environment. Passing by, with doors always open, one senses that it is a reserved and intimate place. Despite its name, it does not resemble a sacred or religious site. The altar, crucifix, and religious objects at the center of the room do not seem to invite prayer, except during Sunday services.

The ambiance of the gourmet area resembles a restaurant kitchen, where cooking is a supervised, collective activity. This space hardly recalls a home kitchen, with its industrial equipment and large central table, but the proposal to bring people closer to the act of cooking did not seem to attract our informants, who never mentioned missing a kitchen in their residence. Perhaps for this reason, the space is not part of their routines.

As for the so-called “tea house”, contrary to what its name suggests, it is not a place for afternoon snacks. The space is used for movie screenings, containing armchairs facing a TV and seemingly intended to simulate the experience of being in a dimly lit movie theater. Observing this space made us understand that silence is not synonymous with calm, and the most inviting ambiances are those where one can choose what to contemplate. This is not the case here. The imposed seating arrangement facing the TV, without enabling conversation or greater social interaction, makes the tea house a little-visited – or even avoided – place by Retiro Humboldt's residents.

We perceived that the ambiances of these spaces transform day by day. Each actor develops a unique role within these places, which alters both their own experience and that of others. These experiences are not consciously perceived, but are intensely lived, enveloped in what Augoyard (2022) defines as *stimmung* – “affective tonality” – in which we are immersed and allow ourselves to be carried by euphoria or dysphoria, from positive to negative emotions. We verified that these affective tonalities are the reactions provoked in and by the ambiances that shape the daily lives of our informants; even if they do not consciously perceive this quality, the experience influences each one's life differently.

Regarding the gardens and green areas of Retiro Humboldt, we found that they seem to bring bucolic, calm, shaded, and refreshing atmospheres that produce a sense of tranquility. It was important to note that residents, besides expressing the aesthetic and leisure value, seemed to act under the influence of what nature means in its symbolic value, far beyond the aesthetic. Of course, the aesthetic value is unquestionable, but the symbolism of nature as an element in constant renewal, possessing a life cycle, recreates a new temporal order, far from the asphalt and cement routine of the cities.

Concerning spatial orientation within the Retiro Humboldt, knowing that the sense of location sometimes becomes complex for a person with AD, we carried out cognitive mapping to understand the memory cues that, according to Zeisel (2009), serve as orientation strategies. When we first observed the paths between buildings, they seemed complex, mainly because several routes led to the same destination and there were no directional signs. Over time, we understood that the memory cues appeared differently.

We identified that the blue house, the solarium, and the dining hall are quickly recognized and considered not only spatial but also social landmarks, becoming cues that help residents navigate through the paths. Another reference for spatial orientation is the door nameplates, created by the residents themselves in handicraft classes to identify their rooms. Such creative actions expand the sense of belonging and identification with the place.

As Fuchs (2012) pointed out, routine – the organization of the day into processes and repetition – already contributes to the formation of a procedural and situational bodily memory. We noticed that our informants need extra stimuli to perform routine activities such as eating, finding their way around spaces, and finding their way back “home”. Our observations revealed that changing and adapting to new routines requires from our informants and the Retiro Humboldt staff a set of strategic actions that stimulate access to implicit and bodily memories. Our research revealed that ambiances are important in organizing activities marked by schedules throughout the day. In addition to mealtimes, waking and sleeping hours, there is also a temporality emerging from the ambiances, from the smells of the dining hall, the sound of the fountain near the solarium, and the bodily dynamics in the blue house.

The research showed us that over hours, days, and years, and throughout everyday actions, older adults with AD realize they struggle to recall many things, yet their forgetfulness is not an issue they repeatedly address. The forgetfulness caused by the disease is initially perceived as natural to aging – the word escaping one’s mind, not knowing what day of the week it is, or not recognizing a familiar space. Forgetfulness, or the consequences of memory loss, is experienced and felt daily and is reflected in their relationship with the physical, social, and emotional environment. Thus, we understood that memory has various natures and does not occur in a single part of our brains, and that there are numerous ways to retain and evoke memories. The research evidenced that ambiances, with their sensitive implications, play a central role in the process of retaining and evoking memories, since the attributes of experience are stored in different ways within our bodies.

Experiences with nature sounds, childhood smells, youthful songs, textures of maternal care, and other sensory resources offered by ambiances triggered memories and emotions in our informants, sometimes expressed through narratives, other times through bodily or facial expressions.

Therefore, it was possible to understand that emotional memory encompasses the whole process of storing, encoding, and retrieving emotional “files” (Uglicone; Duarte, 2011). In this context, we can classify affective memory as the process of consciously retrieving those events and

emotions. Affective memories, being stored for long periods due to the meanings involved in past experiences, revealed aspects of the life trajectory and significant events of these individuals.

Final considerations

When we began this research, we were aware that the reality of most older adults in Brazil is far from that found at Retiro Humboldt. Unfortunately, few families can afford to fund the stay of a person with AD in a private ILPI (Long-Term Care Institution for Elders), which is generally not inexpensive. Many Brazilian older adults end up “shelved” in the homes of relatives and forgotten by others. Some are practically abandoned, regarded as a burden by their families or “pushed” into hospitals, nursing homes, or public ILPIs lacking adequate structure. Many others end their lives on the streets, not only due to the absence of family ties but also because of the lack of protection from the community and the State.

However, the research that underpins this work did not aim to address the inequalities, injustices, and inhumanities that occur in contemporary society. Without denying their existence, our focus was on understanding the relationship that older adults establish with spaces and the role of ambiances in accessing the recesses of memory and reconstructing identity.

The pursuit of understanding these processes found, in the generosity of the Humboldt institution (which opened its doors to our research), fertile ground to, we hope, contribute to new perspectives on older adults with AD and their ways of being in the world.

Regarding the relationship between environments and older adults with AD, the most widespread orientation advocates for the personalization of spaces to foster familiarity and activate memory. The research underpinning this article, however, led us to understand that attachment to Place does not occur solely through the personalization of residences but primarily through environmental elements that help preserve values, build social relationships, stimulate emotions, and identity traits of each person. Whether or not they have AD, the attachment to Place among older adults involves emotional, identity-based, and identity components and perceptual influence. It is the affection, attachment, and sense of control over this Place, as well as the elements that compose it, that support the appropriate use of its spaces.

Furthermore, the approach from the perspective of ambiances demonstrated that, through sensitive relations with space, it is possible to stimulate other manifestations of memory – such as bodily and emotional ones – and, consequently, contribute to the perception of quality of life among older adults with AD. In our case study, we confirmed that multisensory stimuli arising from experiences with ambiances helped establish routines, stimulate decision-making, habits, and preferences, and mediate the consciousness of identity – or of self – of people with AD. These stimuli have the potential to preserve self-esteem and reduce stress and apathy, which are often present in individuals affected by AD.

Finally, this research led us to the conviction that architectural projects aimed at enhancing the quality of life of older adults with AD must, first and foremost, start from the premise that each person is unique and has diverse needs. We cannot generalize care or create solutions that suit some but not others. It is essential to develop person-centered care so that it becomes possible to transform individual realities and improve quality of life. The damage to memory capacity is irreversible, but the environment can – and should – act to compensate for these losses. In this sense, we recognize that studies through the lens of ambiances can serve as a foundation for creating strategies to be adopted in the care of older adults with Alzheimer’s Disease.

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M. S. R. Ceccon, C. R. S. Duarte, and V. M. M. Damazio contributed to the study's conception, data analysis and interpretation, and manuscript review.