



Architecture in Mind: Elderly's Affective Memories and Spatial Perceptions of a Downtown Area

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Abstract. This paper investigates the relationships of affection, among elderly inhabitants, with the downtown area of their city, especially when evoking and re-evoking memories of significant urban transformations experienced by them. The objective of this research is to reconstruct the cartography of the downtown area of the city of Campinas (in the state of São Paulo, Brazil), during the period of 1930–1935, articulated with the fields of Neuroscience, and Architecture and Urbanism. The methodology is centered around semi-structured interviews with 7 (seven) participants, and employs cartographic map and historical photos of the downtown area of the city to elaborate the volumetric model on which the evoked and re-evoked memories of the interviewees are recorded. From the results obtained we point out: [A] the hybridization between the brain maps of elderly people and the cartographic map of the downtown area of the city; [B] the professional experiences and social activities of the elderly people modulate their spatial perception and their autobiographical memories; [C] the re-evoking of somatosensory memories indicates the modulation of perception of spaces experienced by the elderly in their childhood; [D] the acceptance of radical urban transformations, regardless of the wealth of affective memories related to the modified spaces and demolished buildings. These results seek to broaden the body of contributions to the advancement of research on spatial perception and mental images of the urban space.

Keywords: Architecture · Urbanism and neuroscience cooperation · Brain maps · Autobiographical memories · Elderly memories · Spatial perception

1 Introduction

Humans have an innate ability of recalling and imagining physical spaces [1]. Cities, whether evoked or remembered, are continually built in our minds, fusing images of the present with images from our memory and imagination. In constant interaction, our

perceptions, memories and fantasies erect true metropolises in our mind. “There are cities that remain only as mere visual images when they are recalled, and cities that we recall in all their liveliness. Memory re-evokes the enchanting city with all its sounds and aromas and its nuances of light and shadow (...) where the material and the mental, the experienced, the remembered and the imagined completely merge with each other” [1]. Architecture acts as an externalization of these memories, while also acting as a mediator of our relations with space-time. That is to say, in carrying out this mediation between ourselves and the world, “architecture sets up distinct horizons and frames for experience, cognition and meaning (...) and makes the way the world touches us visible” [1].

It is in this context that we situate this research, which circumscribes the relations of affection of the inhabitants with their city, especially when reviving in their memories the significant urban transformations experienced by them. Important Brazilian cities, founded in the Brazilian colonial or imperial times (18th–19th century), witnessed enormous transformations in their urban centers in the 20th century, when they were adapted for the circulation of motor vehicles. The downtown area of the city of Campinas, located in the state of São Paulo (Brazil), underwent such transformations¹, starting in the 1930s. It is the role of urbanism to understand this processes in depth, both to qualify the instruments of urban planning and design and to improve the management mechanisms of our cities. “For the urban planner, the city and the territory are not only an immense archive of documents of the past, they are mainly an inventory of what is possible” [2]. Since the emergence of pioneering studies on environmental perception in the 1960s, this understanding has shifted focus. Urban planning began to incorporate, in addition to the technical surveys, the immense framework of information coming from the cities’ inhabitants themselves. Human beings provide not only direct information on issues regarding environmental comfort, for example, but also about their spatial orientation in the city, their feeling of security or insecurity, their identification with places, their memory of places, among numerous other aspects. With the emergence of studies in the field of Neuroscience [3–7], the spectrum of analysis of all these aspects has been greatly expanded, making its contribution to the field of urban planning, urban quality of life, health and well-being of its inhabitants even more promising.

In the context of urban transformations, we must point out that the living memories of earlier periods become increasingly scarce, especially when the process of recording and documenting these transformations does not comprise the experiences lived by the city’s inhabitants. This is where the relevance of this research resides and leads to the urgency of collecting the evoked and re-evoked memories of a small group of elderly people who, each in their personal/professional area of influence, have played a central role in their relations of affection with the downtown area of Campinas. These participants experienced the period of architectural and urban changes in the

¹ The transformations were basically characterized by road widening, changes on construction standards, from two-story colonial houses to large vertical buildings, with more varied functions, such as department stores, offices, residential or mixed buildings etc.

aforementioned city intensely, hence the importance of recording the testimonies of this generation.

We were especially interested in the region that comprises the three Squares of the city, in which the municipality's political, religious, and commercial powers imposed themselves and had an undeniable symbolic value: Largo do Carmo (Carmo Square), Largo do Rosário (Rosário Square) and Largo da Catedral (Cathedral Square). What memories remain in the neural architecture of the interviewees regarding the images of the city-province, with its narrow streets, its squares and its mansions? And how were the interviewees' perceptions of the transformations that took over the area shaped and modulated over time?

The period chosen corresponds to approximately a decade, between the years of 1935–1945, when the first interventions of the Urban Improvements Plan proposed for Campinas by Prestes Maia² (Brazilian civil engineer, architect and politician) were outlined. This period is a precursor to the growth and modernization of the city of Campinas, which culminated in the present metropolis.

2 Autobiographical Memories

The brain forms memories in a totally distributed way. There are several records in the brain that correspond to different aspects of our interaction with the 'things of the world:' spaces, objects, people, animals, in short, every type of relations that are possible to the brain. In other words, there is no single point in the brain where the total record of our possible interactions with a particular 'thing' is located. Rather, these records of our possible interactions with the 'things of the world' are distributed around our neural architecture and remain dormant, implicit in separate neural areas located in the higher cortices. Thus, when they become explicit as mental images—evoked memories, recollections—even if still as an outline, these records are activated only in some of these brain areas, and coordinated rapidly and in close temporal proximity, in such a way that all sensory-motor information seems integrated.

In this context, what differentiates our autobiographical memories from the other memories formed in our brain structure is the fact that autobiographical memories "refer to facts from our personal history, invariable and established" [5]. That is, autobiographical memories are constituted by implicit memories from different moments of our individual experience, from the past and the foreseen future. Associated, life experience and autobiographical memory grow continually, in a movement in which autobiographical memories can be partially remodeled to reflect new experiences [5].

² The Urban Improvements Plan of Campinas (known as the "Prestes Maia" Plan), from 1938, is the city's first long-term urban development plan. It was also the longest lasting: its implantation stretched from the late 1930s to the late 1960s. The Plan conducted radical interventions in the city's downtown area, with road widening, expropriations and large-scale demolitions of public and private buildings. It also promoted changes in regulation that impacted the downtown area's density and verticalization [8].

From an operational point of view, memories are characterized by structural changes in the synapses, which are distinct for each memory or type of memories. That is to say, memories are stored by means of modifications that occur in the form and function of the synapses that make up the neural networks of each memory. And at the moment they are evoked, the synaptic networks of each memory are reactivated. From a metabolic standpoint, the evocation process involves, in part, the reactivation of neurotransmitter systems (noradrenaline, acetylcholine, glutamic acid) and protein kinases (ERKs, CaMKII, PKA) employed in memory consolidation.

In this process of reactivation, the more components of the conditioned stimulus are present, the easier and more reliable the evocation will be. The methodology adopted by this research is thus justified. By making use of photographic records from the period evoked (between the years 1935 and 1945) and their association with a digital volumetric model, both representing the downtown area of the city of Campinas, the research makes feasible the presence of the largest number of components of the conditioned stimuli in the brain architecture of the respective participants.

We must point out that the reactivation of memory can lead to its reconsolidation. In this context, reconsolidation facilitates the incorporation of new data into the memory that is being evoked [7]. On the other hand, the lack of reinforcement can contribute to the extinction of the then consolidated memory. In the case of elderly people, or of very old memories, the extinct or semi-extinct memories corroborate the mixtures of memories or the partial or defective evocations. Just as the simple passing of the years can also provoke deformations to the point of turning them into false memories [7].

3 Brain Maps

The representations of key events in an individual's autobiography are on the neural basis of the 'self.' In other words, the notion of identity is repeatedly reconstituted in the partial activation of these representations, on sensory maps organized topographically [6]. That is, momentary maps made up of nerve cells located in different places of the brain record the numerous events that denote the life process. This mapping of all the things inside or outside our body, built by the brain, underlies all our mental images—concrete and abstract, ongoing or previously recorded in memory. These images result from the changes in the organism during the physical interaction of the body with the 'things of the world.' At this moment, sensors distributed throughout the body emit signals that build, in the brain's several sensory and motor regions, the transient neural patterns dedicated to mapping such interactions. As true collections of neural patterns, brain maps represent the body's responses to the stimuli that generate emotions and feelings [9, 10].

In contrast to classical cartography, brain maps are not static. On the contrary, they are dynamic, unstable and constantly shift to reflect the changes occurring in neural patterns. Such dynamism is consistent with our own existence and with the fact that we are in constant motion. In short, every environment "offered to the brain is perpetually modified, spontaneously or under the control of our activities (...) our body changes

according to the different emotions, and different feelings come about (...) and the respective brain maps undergo corresponding changes” [10].

In this research, the cartographic maps of the city of Campinas and the brain maps of the participants articulate and reconstruct throughout the evocation and re-evocation process of the respective autobiographical memories.

4 Methodology

The aim of this research is to reconstruct the cartography of the downtown area of the city of Campinas (São Paulo, Brazil) in the period of 1930 to 1935, from evoked and re-evoked affective memories from the brain maps of the elderly participants.

The work consists of three distinct phases: (a) preparation of the material for the interviews; (b) semi-structured interviews with seven (7) elderly people; (c) transcription, compilation and analysis of the data.

In the **(a) preparation phase**, the research focus is defined, considering the three city Squares: Carmo, Rosário and Cathedral, involving not only the surrounding streets, but also including their interconnecting stretches. We have utilized as references: a cadastral map of the downtown area of Campinas, in 1:1000 scale, dated from 1985; and 89 street-level photos of the area of the three Squares, from the period of 1900 to 1945. With the cadastral plan, and aided by the photos, a digital volumetric model (made in the CAD software) of the region of the three Squares was produced, of an immediately previous moment (1930–1935) to the first renovations conducted by Prestes Maia’s Urban Improvements Plan (1940). From the model, a perspective view of this volumetric set was selected and printed in size 90 cm × 30 cm. Over this view a drawing of the three Squares, in perspective and in freehand, was produced. In this drawing, the volumes were given additional details and ornaments, by hand, which were obtained from the aforementioned photos. This results in a view of the three Squares, seen from above, and reflecting the configuration of this urban space in the 1930s.

The selection of the public, aged 75 and above, considers those who experienced the great urban reform, carried out in the downtown area of the city in the 1940s, either as residents or as frequenters of that area. Together with these, we have conducted semi-structured interviews and exhibited photographic records of the aforementioned architectural and urban space, in a period prior to the renovations. This strategy facilitates a reconstruction, in perspective, of the urban map, based on the spatialization of memories, evoked and re-evoked in the elderly participants, regarding the old downtown area of Campinas.

The **(b) interview phase** consists of meetings with the participants, in places of the city of Campinas indicated by them. The interview kit includes: a copy of the hand-drawn perspective view of the three Squares, to which the researchers add information of the places mentioned by each interviewee; and three folders (one for each of the Squares), each containing about 20–30 photographs from the 1930–1935 period. The individual interview begins with the participant filling out a demographic data sheet. Then, the researchers conduct the dialogues focused on the evocation and re-evocation of their recollections of the three Squares, approaching one Square at a time. The

photos corresponding to each Square are used as stimuli to evoke memories. All interviews are recorded in full.

The **(c) data compilation and analysis phase** initially consists of the transcription and textual compilation of the interviews. An overview of the three Squares is generated for each of the seven interviews. Specifically for the analysis, the first action focuses on the identification of intersections in the testimonies, in order to locate memories associated with the same site or building. The second focuses on the familiarity of the interviewees with each of the three Squares, that is, if any of the Squares predominates in the individual memories. The third focuses on the thematic predominance (religious, political etc.) of the facts and aspects recalled by the elderly. This predominance, later confirmed by the results, is dependent on the educational and professional background of each participant.

The fourth action is aimed at reworking the graphical representation of the perspective views initially generated (phase 1) and applied in the interviews (phase 2), in order to reflect the results obtained thus far. All the buildings mentioned by the interviewees are highlighted in colors that identify their category, divided by theme: (1) lilac - religious buildings; (2) red - shops/commercial buildings; (3) blue - public buildings, spaces of political action, newspaper headquarters; (4) orange - educational/cultural/leisure buildings; (5) green - families/dwellings of traditional families of the city; (6) brown - industrial buildings. Brief comments on relevant curiosities or facts, mentioned by the interviewees, were also added to the new perspective views, exactly where they occurred and according to the memory of each participant. Finally, the quantitative results are systematized in a table, showing the thematic predominance in the evoked and re-evoked memories of the brain maps of the elderly participants, aligned with the six categories listed above. The main qualitative results are shown below.

5 Main Results and Discussions

The four steps for analysis described in the methodology converge towards the three groups of results addressed in this section. We must also point out the qualitative aspect of the memories collected in respect to each of the three Squares, as follows:

Carmo Square

In the Carmo Square, the participants of this research mentioned families, surnames and nicknames, and not the visual appeal of attractive storefronts, the bizarre lifestyles of notorious passers-by, which are commonly evoked in references to the other two Squares. What also predominate are almost grandiose memories of the characters from the past and their kinship. The constructions themselves, the mansions, evoked in these participants the names of their builders, and of the families who acquired them over the following generations.

Rosário Square

The participants' memories of Rosário Square are diverse and vigorous, denoting the importance of this site as a symbolic landmark of important events in the city's history. Political events that marked the fate of Campinas are evoked. Recollections of the most

prominent commercial establishments and the merchants themselves, with their habits and patrons. The participants also mention curious facts, or regarding notorious passers-by, peddlers and hawkers that roamed the square. In Rosário Square there are also evocations of the genealogical relations of the traditional families, with their mansions. This diversity reveals the more democratic nature of this Square, through the wealth of appropriations and uses associated with this public space.

Cathedral Square

The memories related to the Cathedral Square are varied regarding the functions of its buildings (commercial, residential, institutional and leisure). Considered the city's "postcard", it is always mentioned by the interviewees as a special and noble site. The Cathedral Square differs from the story of the other two Squares. Conceived at a later moment in the city's evolution, this Square was planned to house a Christian temple of greater proportion and importance than the previous ones.



Fig. 1. Cathedral Square in 1930. In the foreground, on the right, the building of the center for the Sciences, Letters and Arts. Source: V-08 Archive.

5.1 Professional Experiences and Social Activities of the Elderly Modulate the Autobiographical Memories and the Perception of Urban and Architectural Space

The first photos, taken from the tower of the new Cathedral, show an already well-formed Square—the Cathedral Square, in the late 19th and early 20th centuries, where there were several mansions and two-story houses. In this context, the Center for the Sciences, Letters and Arts (CCLA), built in 1907, at the corner of Francisco Glicério and Conceição Street, stands out (see Fig. 1). An institution that exerted major influence in the life of the city of Campinas, the Center brought together artists and intellectuals, promoted events and courses, and sponsored hundreds of publications.

Here we find evidence of how the same building, with a single use, has its perception modulated by the individuals' professional experience and/or social activities. In other words, “the lived existential space, different from the physical and geometric space, is structured on the basis of the meanings and values reflected in it by the individual or group, consciously or unconsciously; it is a unique experience interpreted by memory and the individual's empirical contents” [1]. Belonging to the group of “men” who discussed politics, literature and science, the interviewee Benedito Barbosa Pupo was a professional historian and political journalist, and he was also a frequent visitor to CCLA. His autobiographical memory is linked to the “environment” in which this occurred, the circumstances and the characters that were part of it:

“The entrance was at Conceição Street... There was something funny here... There was one thing here... I always sat here and watched the movement. It was very popular, you know? Because there were many members... There was a cafe, from noon to one-thirty... Interesting; Pacifico, he was called Pacifico, he served a lot of coffee for us... (he was an assistant of “Fonseca's”)... (...) All those shopkeepers over there had no toilets, so they went in as members so they could use the Center's restroom and have coffee. (...) Right after lunch, it was crowded: Geraldo Correia, Celestino Campos, all those people, teachers, met there...” [11]

On the other hand, Dona Célia, writer and chronicler, was the “outside” observer, since access to this building was forbidden to women. The building is seen by her with mystery, curiosity and fear. At the same time that it attracted her because of the books inside the place, it repelled her for the implicit prohibition:

“In front of Casa Di Lascio, in the same Francisco Glicério Street (which was not an avenue, but a street) with Conceição Street was the (old) building of the Center for the Sciences, which was a beautiful building. And I would ask my mother, ‘What's inside this building?’ She would answer, ‘There are a lot of books...’ Then I'd ask, me being mad about books: ‘Can't we go inside and see?’ She replied, ‘No, only men are allowed, women don't go there.’ So I didn't go...” [12]

The interviewee Léo Siqueira, in turn, heir of a traditional family from Campinas, focuses his account on historical facts and in the social genealogy of the city. Especially in the perception of the urban and architectural space of the downtown area regarding the aspect of the ownership of the residential real estate:

“This mansion, here on the corner of Tomaz Alves Street (Carmo Square), was built by the Ambrust Family. It was later bought by Companhia de Tração Luz e Força and my grandfather, Mário Estevão Siqueira, who was the company’s president, lived at the top, and married his daughters there.” [13]

“In the last two visits made by Princess Isabel, in 1884, and the Emperor, in 1886, they stayed at the Cathedral Square, in the famous “great house,” the mansion of the Viscountess of Campinas.” [13]

“I lament the removal of the statues and ornaments that adorned the top of the facade of the former residence of the Viscountess of Campinas.” [13]

And to Zanzur Smânio, a merchant from Campinas, the memories are the most intricate web of business and courtesy relationships between Campinas’s new class of merchants and the stores themselves. During his interview, each store mentioned led to the remembrance of the name of its owner and small particularities or stories related to the interviewee’s own family. He was able to list, one by one and in chronological and spatial order, the names of all the stores located at the three Squares.

“Cidade München (Cathedral Square) sold draft beer and had a small stage where German dancers performed.” [14]

“Casa Di Lascio (Cathedral Square) sold the most elegant men’s clothes. I used to shop for special suits there, made with a very fine fabric.” [14]

To Damásio [5], autobiographical memory comprises an aggregate of dispositive records about who we are in the physical and behavioral spheres, associated with “records about what we plan to be in the future”. That is to say, this memory formed and consolidated with our life experiences and the individual’s biography, also partially reshapes to aggregate and reflect new experiences.

The maps below (Figs. 2 and 3) simultaneously denote this autobiographical dynamics and serve as an object of concretization of the downtown area of the city of Campinas in the evoked memories of its inhabitants. In them, we can visualize the correlation between the individual’s biography and their repertoire of experiences, and the remembered urban spaces. “Buildings, villages and cities impart experiential and existential meanings to meaningless spaces by converting them into specific spaces, which choreograph and resonate along with our mental actions and reactions” [1].



Fig. 2. Graphical representation in perspective of the three Squares. The buildings cited by each interviewee are highlighted: top [11]; middle [12]; bottom [13]. The colors represent the function of the buildings (see Table 1). Source: the authors.



Fig. 3. Graphical representation in perspective of the three Squares. The buildings cited by each interviewee are highlighted: top [14]; middle [15]; bottom [16]. The colors represent the function of the buildings (see Table 1). Source: the authors.

5.2 The Re-evocation of Somatosensory Memories and the Modulation of the Perception of Spaces Experienced by the Elderly in Childhood

In the first half of the 20th century, commerce in the city of Campinas was concentrated in the Treze de Maio Street (Cathedral Square), which started at the Paulista Railway Station. In the lower part of the large two-story house of the Complementary School, at this time dedicated to secondary education, there were several spaces that were occupied by famous stores, such as the Salles Pharmacy.

In this scenario, we have an example of how public spaces are modified in the re-evocation of somatosensory memories of its inhabitants. According to Pallasmaa [1],

Table 1. Quantitative result of the buildings mentioned by the interviewees. Buildings classified according to their function. Source: the authors.

	Color on map	Pupo [11]	Farjallat [12]	Siqueira [13]	Smânio [14]	Ziggiatti [15]	Moura [16]
(A) Religious buildings	Lilac	6	6	5	6	5	5
(B) Stores	Red	12	22	3	69	13	16
(C) Public buildings/political parties	Blue	2	0	2	5	1	2
(D) Cultural/educational/leisure buildings	Orange	6	4	0	3	5	4
(E) Houses from traditional families	Green	2	3	15	4	1	5
(F) Industry	Brown	0	0	0	0	1	0
Total		28	35	25	87	26	32

“when the eyes touch and contemplation caresses distant profiles and contours, our vision feels the hardness, texture, weight and temperature of surfaces” and our brain maps incorporate this information as somatosensory records, which may be evoked in the future.

For instance, the visual stimulus given by the photographic record of Treze de Maio Street (Fig. 4) evokes, in both interviewees, somatosensory memories of the Salles Pharmacy. However, while for Dona Celia the red liquid in the medication vials is lived



Fig. 4. Treze de Maio Street, in which the Salles Pharmacy is located, on the block to the side of the Cathedral. Source: CCLA archive.

in her memory, the same color is not even mentioned by Mr. Marino, in the same exercise of re-examination:

“In the 1920s I used to go to Cathedral Square with my mother to pray in the Cathedral, and I observed that on the side of Treze de Maio Street (which was an open street, now closed) there was a pharmacy, the Salles Pharmacy, which bewildered me, because pharmacies, old pharmacies, had huge vials with colored liquid—the liquid was red, I can’t remember if the other was green or yellow, but the red one drew my attention... (...) My mother said that at night doctors met there to share the news... there were chairs on the sides, let’s say it was their club.” [12]

“I remember the Salles Pharmacy, on this side, which was one of those old pharmacies, with those colored bottles; yellow, blue...” [15]

In other words, it is clear to both inhabitants that the revived scene carries enough values and emotions to ensure that the brain keep records that are “multimedia records of visions, sounds, tactile sensations, odors and related perceptions” [10] and re-present them when evoked. “With the time and imagination of a fabulist, the material can be adorned, cut into pieces and recombined into a novel or screenplay” [10].



Fig. 5. Rosário Square. In the foreground, next to the chimney, buildings in the same lot as Casa Purcchio (fronting the Square) and “5.002” sugar factory (back). Source: CCLA archive.

In a different perspective, the same photograph of the Rosário Square region, in which the chimney of the sugar factory called “5.002” appears in the foreground (Fig. 5), primarily evokes memories of different spaces for both interviewees. While the memories of Maria Luiza concentrate on her experience with the business activities

of Casa Purcchio, those evoked by Mr. Marino focus on the industrial routine of the same establishment:

“(...) at Casa Purcchio, I went with my friends to ride the elevator... And on the ground floor we bought packages with sugar cubes, which were leftovers from the factory behind. They wrapped them and sold them in little packs...” [16]

“I was impressed, they had Fiat trucks that had no tires, they used solid tires, and they came to unloaded crude oil to run the plant... I liked to watch the big, yellow truck, there was a tube came from it, that ran all the way to a warehouse... I was impressed to see that, I had never seen a truck like that...” [15]

Such statements reinforce what Pallasmaa [1] calls the “mental experience of the city”. More than a sequence of visual images, this experience comprises a broad haptic constellation, or a continuum of haptic experiences, which incorporate the impressions of the gaze.

5.3 The Re-evocation of Memories and the Non-nostalgic Acceptance of Space Transformed Through Urban Renovation

The ability to learn to be guided by future perspectives, rather than immediate results, is one of the distinctive traits of human beings, first acquired during childhood [6].

Beginning in the 1930s, with the boost in industrialization, the city of Campinas definitely entered the “modern times”. The word “progress” may be the most emblematic, what best symbolizes the feeling of the citizens and the city in this period. And it was unanimous. There is no single mention, even in the brochures and articles of the time, nor in the interviewees’ statements, of any opposition or dissent to the idea of “progress”. “Groups, and even nations, share certain experiences of the existential space that constitute their collective identities and their sense of community” [1].

From these results the Urban Improvements Plan, which led to profound transformations in the old hierarchical-functional structure of the three Squares, with the widening of several main streets (Fig. 6). The renovation of the public thoroughfares and the Squares, with the consequent expropriations and changes in construction



Fig. 6. Francisco Glicério Street (Rosário Square), in the 1930s (left) and its transformation into an avenue, with the Urban Improvements Plan, beginning in the 1940s (right). Source: V-8 Archive and CCLA Archive, respectively.

regulations, hastened the replacement of the old for the new. This combination of memories of the past and the future, woven into the constant reactivation of updated images of our identity, forms a considerable part of the state of the “self” [6].

The neural basis for the “self” consists in the continuous reactivation of at least two sets of representations: (a) key events in an individual’s autobiography; and (b) a set of recent events associated with a set of imaginary and desired plans and events [6].

Contrary to the intransigent nostalgic attachment, usually presumed in the discourse associated with the evoked memories, what is observed here are the contours of a different perspective—the satisfactory acceptance of what’s new, without it being a threat to the preservation of the memory of this space.

“It was necessary... It was all very narrow, the city became more airy...” [12]

“Prestes Maia was very important... It was a contribution!... Campinas could not be restricted by those narrow streets, it would be a... I wonder... Today we have a different notion, you know, maybe we would leave it as it was... but it couldn’t be, otherwise we would have to build another city... it had to be done... these openings...” [15]

Imaginary plans and events make up memories of a possible future. And, like any other memory, they are preserved in the dispositive representations [6].

6 Conclusion

This research leads us to some conclusions regarding the connections between the brain maps, the evoked and re-evoked memories, and the affective relations of elderly inhabitants with the urban space of the downtown area of Campinas.

Part of the interviewees’ accounts is of descriptive and analytical nature regarding the buildings and the facts associated with them. The other part, in turn, is emotional in nature, and focuses on the evocation and re-evocation of the somatosensory memories and the affective memories of the spaces experienced by these inhabitants in their childhood years. It is evident that the memories about the same building, fact or place denote generational differences. Beyond that, the emotional state of the interviewee at the time of evocation also modulates the memories and shapes their perceptions about their past.

Still, the impact of each participant’s professional background and social activities in the process of ‘editing and recombining’ their memories is remarkable. This specificity allows for the evocation of personalized cartographies, properly structured in the respective brain maps of these inhabitants. Combined, these evoked cartographies facilitate the reconstruction of the cartography of these Squares in Campinas in the 1930s, in a spatial representation that interprets and qualifies them.

Throughout this process, the classification of these evocations into categories facilitates the association of the interviewee’s profile with the nature of the memories themselves. For instance, an interviewee whose life has always been associated to the social relationships with traditional families evokes memories related to the ownership of the buildings and their functions as residential spaces for the elites. Or that another, whose professional life has been entirely performed in the commercial field, is able to enumerate the stores, one by one (see Table 1).

Another relevant aspect is the dissociation between the memories evoked by this group of inhabitants and the feeling of nostalgia. Differently from what is commonly found in the accounts by elderly people about the great urban transformations that their places of childhood and youth have undergone, the opposite is observed here. The acceptance of these changes and the understanding of their contributions to the revitalization of the urban space, even when this involves demolishing historical architectures, which bear high symbolic load and sociocultural value.

Finally, regardless if the individual memories evoked are complementary or divergent in nature, the set of collective memories are extremely valuable to urban studies, whose objective converges to urban intervention, through planning and management tools or urban design.

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