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Coranzulí en 1942.
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EDITORIAL

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Arquitectura pública: la acción del estado

En Chile y Latinoamérica, el Estado ha construido ciudad. Así, desde edificios y espacios públicos, arquitecturas institucionales, escolares, habitacionales, hospitalarias, industriales, de transporte, hasta en las más distintas esferas, resulta innegable la acción estatal en la producción de arquitecturas de carácter público.

En diversas épocas este hecho ha sido más o menos valorado o reconocido. A modo de ejemplo, durante la presidencia de José Manuel Balmaceda (1886-1891), su mandato emprendió una numerosa obra pública que procuró extender la modernización por el país a través de edificios e infraestructura. Asimismo, durante la década de 1940, con el impulso de los gobiernos del Frente Popular, se advierte una sostenida acción de institucionalización que derivó en el emprendimiento de numerosos edificios que propagaron los beneficios de la arquitectura moderna en arquitectura pública y vivienda popular. Con la aplicación de un modelo económico-social capitalista, que privilegia las oscilaciones del mercado, a partir de la década de 1970 y hasta la actualidad, se ha favorecido al quehacer privado, de modo que la acción del Estado en la producción de la ciudad ha quedado cercenada y, en muchas ocasiones, apagada o denostada.

No obstante lo anterior, hoy asistimos a un proceso político e histórico en donde se piensan -y sueñan- nuevas perspectivas y nuevos roles para el Estado… ¿se podrá hablar de un nuevo Estado?, ¿de una nueva operatoria estatal que rescata el valor institucional y político como promotor de más y mejor arquitectura?

En ese contexto, *Arquitecturas del Sur* presenta en este número investigaciones desarrolladas por la comunidad académica sobre la arquitectura pública producida por el Estado en Latinoamérica. Se examinan aquí obras del pasado y contemporáneas, con la idea de estimular una revisión crítica de dicha producción arquitectónica y urbana, como también de poner en perspectiva una mirada amplia sobre las arquitecturas y el espacio público latinoamericano.

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EDITORIAL

Public architecture: the action of the state

In Chile and Latin America, the State has built the city. Thus, from buildings and public spaces, institutional, school, housing, hospital, industrial, and transportation architectures, to the most diverse spheres, the State's action in the production of public architecture is undeniable.

At different times, this fact has been more or less valued or recognized. For example, during the presidency of José Manuel Balmaceda (1886-1891), his administration undertook numerous public works that sought to spread modernization throughout the country through buildings and infrastructure. Likewise, during the 1940s, with the boost of the Popular Front governments, there was a sustained institutionalization action that resulted in the construction of numerous buildings, that spread the benefits of modern architecture for public architecture and working-class housing. With the application of a capitalist economic-social model, which privileges market fluctuations, from the 1970s to the present, the private sector has been favored, so that the State's action in the production of the city has been curtailed and, on many occasions, muted or vilified.

However, today we are witnessing a political and historical process where new perspectives and new roles for the State are being thought of and dreamed up. Can we speak of a new State, of a new State operation that rescues the institutional and political value as a champion of more and better architecture?

In this context, Arquitecturas del Sur presents, in this issue, research developed by the academic community on public architecture produced by the State in Latin America. Past and contemporary works are examined here, to stimulate a critical review of such architectural and urban production, as well as to show an insight into a broad view of Latin American architectures and public space.

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EDITORIAL

Arquitetura pública: a ação do estado

No Chile e na América Latina, o Estado construiu cidade. Assim, de edifícios e espaços públicos, arquiteturas institucionais, escolares, habitacionais, hospitalares, industriais e de transporte até as mais diversas esferas, a ação estatal na produção de arquiteturas públicas é inegável.

Em momentos históricos diferentes este fato foi mais ou menos valorizado ou reconhecido. Por exemplo, durante a presidência de José Manuel Balmaceda (1886-1891) foram realizadas numerosas obras públicas que procuraram difundir a modernização em todo o país por meio de edifícios e infraestrutura. Da mesma forma, durante os anos de 1940, com o impulso dos governos da Frente Popular, houve uma ação sustentada de institucionalização que levou à construção de inúmeros edifícios que difundiram os benefícios da arquitetura moderna na arquitetura pública e na habitação popular. Com a aplicação de um modelo econômico-social capitalista, que favorece as flutuações do mercado, a partir da década de 1970 e até o presente, a atividade privada tem sido favorecida, de modo que a ação do Estado na produção da cidade tem sido cerceada e, em muitas ocasiões, silenciada ou vilipendiada.

No entanto, hoje estamos testemunhando um processo político e histórico no qual novas perspectivas e novos papéis para o Estado estão sendo pensados – e sonhados... Será que podemos falar de um novo Estado, de um novo funcionamento estatal que resgata o valor institucional e político como um promotor de mais e melhor arquitetura?

Neste contexto, Arquitecturas del Sur apresenta nesta edição pesquisas desenvolvidas pela comunidade acadêmica sobre a arquitetura pública produzida pelo Estado na América Latina. Examina obras passadas e contemporâneas com a ideia de estimular uma revisão crítica desta produção arquitetônica e urbana, bem como de colocar em perspectiva um olhar amplo sobre as arquiteturas e o espaço público latino-americano.

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The Urban and Architectural Space: Its Experience and Meaning from a Phenomenological Perspective

EL ESPACIO URBANO-ARQUITECTÓNICO: SU EXPERIENCIA Y SIGNIFICADO DESDE UNA PERSPECTIVA FENOMENOLÓGICA

O ESPAÇO URBANO-ARQUITETÔNICO: SUA EXPERIÊNCIA E SIGNIFICADO A PARTIR DE UMA PERSPECTIVA FENOMENOLÓGICA

Figure 0. Front paving of Juan de San Miguel, in Morelia, during an exhibition of offerings to celebrate the Day of the Dead. Source: Images by F. J. Fuentes F.

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RESUMEN

¿Cuál es la naturaleza de la vida emocional y significante producida por las formas arquitectónicas y cómo pueden los especialistas en diseño urbano-arquitectónico entender las necesidades psico-afectivas –emociones, sensaciones, significados y recuerdos, etc.- de futuros inquilinos de su proyecto constructivo? Mediante una revisión bibliográfica de carácter histórico y teórico-crítico, en el presente trabajo se aborda el marco teórico de la arquitectura fenomenológica, según el cual es el contexto edificado y el mundo de vida de las personas donde se produce el significado de las experiencias mencionadas. Se plantea que la experiencia sensible o fenoménica ante las obras construidas, por parte de los diseñadores, les permite acceder a recursos cognitivos -empatía, inter-corporalidad, cognición social- que pueden emplear en futuros proyectos constructivos y habitacionales. En obras publicadas recientemente destacan alternativas epistémicas acerca de la naturaleza de la vida emocional y subjetiva del hipotético habitante, por ejemplo, en los casos de la empatía (ponerse en los zapatos de otro), de la atracción o rechazo a ciertos lugares, y de la 'atmósfera' o sensación colectiva creada por interacciones sociales en los espacios públicos y otros. A partir de estos resultados se demostró que es en el contexto socio-urbano donde los significados de la arquitectura son interpretados para su aplicación en tales proyectos. Se concluye que dicha perspectiva es subsidiaria del pragmatismo filosófico y semiológico, el cual afirma la importancia del contexto habitado para comprender el sentido de lo que hacen, dicen o sienten los demás. Se confirma también la necesidad de un enfoque interdisciplinar y humanístico, basado en metodologías de corte interpretativo y fenomenológico, que den preponderancia al conocimiento *a posteriori*, aquel que se obtiene mediante la experiencia.

Palabras clave: interacción simbólica, posmodernismo, subjetividad, *utilitas*.

ABSTRACT

What is the nature of the emotional and significant life produced by architectural forms, and how can specialists in urban-architectural design understand the psycho-affective needs - emotions, sensations, meanings, memories, etc. - of future tenants of their construction project? Through a bibliographic review of a historical and theoretical-critical nature, in this work, the theoretical framework of phenomenological architecture is addressed, considering the built context and the world of people, where the meaning of the aforementioned experiences gains life. It is suggested that the sensitive or phenomenal experience of the works built by designers, allows them to access cognitive resources - empathy, inter-corporeality, social cognition - that they can use in future construction and housing projects. In recently published works, epistemic alternatives are found about the nature of the emotional and subjective life of the hypothetical inhabitant, for example, in the cases of empathy (putting oneself in another person's shoes), the appeal or rejection of certain places, and the 'atmosphere', or the collective sensation created by social interactions in public and other spaces. The results reveal that it is the socio-urban context where architecture's meanings are interpreted for their application in such projects. It is concluded that this perspective is a subsidiary of philosophical and semiological pragmatism, which confirms the importance of the inhabited context to understand the meaning of what others do, say, or feel. The need for an interdisciplinary and humanistic approach is also confirmed, based on methodologies of an interpretative and phenomenological nature, which give preponderance to *a posteriori* knowledge, which is obtained through experience.

Keywords: symbolic interaction, postmodernism, subjectivity, *utilitas*

RESUMO

Qual é a natureza da vida emocional e significante produzida pelas formas arquitetônicas, e como os especialistas em desenho urbano-arquitetônico podem compreender as necessidades psicoafetivas – emoções, sensações, significados e memórias, etc. – dos futuros inquilinos de seu projeto de construção? Mediante uma revisão bibliográfica de natureza histórica e teórico-crítica, no presente trabalho foi abordado o marco teórico da arquitetura fenomenológica, segundo o qual é no contexto construído e no mundo da vida das pessoas onde se produz o significado das experiências mencionadas. Sugere-se que a experiência sensível ou fenomênica diante das obras construídas pelos arquitetos permite a eles acessar recursos cognitivos – empatia, intercorporalidade, cognição social – que podem utilizar em futuras construções e projetos habitacionais. Em obras recentemente publicadas são apresentadas alternativas epistêmicas sobre a natureza da vida emocional e subjetiva do hipotético habitante, por exemplo, nos casos da empatia (colocar-se no lugar do outro), da atração ou rejeição por determinados lugares, e da "atmosfera", ou sensação coletiva criada por interações sociais em espaços públicos e outros. Com estes resultados ficou demonstrado que é no contexto sócio-urbano onde são interpretados os significados da arquitetura para a sua aplicação em tais projetos. Conclui-se que essa perspectiva é subsidiária do pragmatismo filosófico e semiológico, que afirma a importância do contexto habitado para compreender o significado do que os outros fazem, dizem ou sentem. Confirma-se também a necessidade de uma abordagem interdisciplinar e humanística, assente em metodologias de natureza interpretativa e fenomenológica, que dão preponderância ao conhecimento *a posteriori*, aquele que se obtém mediante a experiência.

Palavras-chave: interação simbólica, pós-modernismo, subjetividade, *utilitas*.

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INTRODUCTION

The Significant Dimension of Architectural Forms

Several disciplines share an interest in the relationship between built space and people's behavior. Starting from this statement, this work is, in fact, a critical reflection on a great change that occurred in urban and architectural design during the second half of the previous century, one identified here as a new building tradition, one that is post-modern, phenomenological and interdisciplinary, scientific-humanistic, and that is particularly interesting for the world of life of urban players –their subjective experiences, sensations, and meaning of places, etc.,-from new conceptions of space-time and of human subjectivity.

This line of architecture is represented by historians and urban-architectural design theorists such as Sigfried Giedion, Christian Norberg-Schulz, Eiler Rasmussen, and, more recently, Alberto Pérez-Gómez, Juhani Pallasmaa, and Jorge Otero-Pailos, among others. In the scope of the design and execution of construction projects, Steven Holl, Peter Zumthor, Glenn Murcutt, and others stand out who, though not having openly followed any specific line, have a very sensory and inter-corporal work, like the case of Zaha Hadid or Frank Gehry.

In a recent publication (Mallgrave, 2018, p. 3) it is read that we owe the intellectual construct of "space-time" to Sigfried Giedion, as an architectural concept of enormous influence. In brief, Giedion argues that the role of Modern Architecture consists in closing a gap between reason and emotion - between feeling and thought-, opened by Cartesian dualism. However, postmodernism, as a constructive rather than philosophical tradition, would be a way to try to respond to what modern architecture has not yet managed to elucidate: the meaning of the inhabited space.

Since modernism had not been able to respond to the post-war human situation, the need to take the human figure as the key factor in urban and architectural design led to a redefinition of space as "(...) depending on the perception of people" (Montaner, 2013, p. 216). Montaner points out that "(...) one of the greatest novelties and contributions in architecture has been the gradual importance given to the senses, to perception, and to the human experience" (2015, p. 52). Thus, the experience and its meaning permeate the conceptual basis of the new constructive current in gestation, which was consolidated in the 1970s and 1980s and which remains in force today, namely phenomenological architecture.

This article defends the enormous importance, for those planning future construction projects, of the experience of directly perceiving buildings and the urban layout, public spaces, and

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architectural forms, as a heuristic or epistemic resource to interpret and understand the emotional needs of future inhabitants. This proposal also seeks to offer possible lines of research in urban-architectural design, at a theoretical-critical level, about problems such as the meaning of built forms, and the emotional life of the hypothetical urban inhabitant. To this end, literature specializing in urban-architectural design theories was reviewed, and the relationship of these theories with those from other scientific and humanistic areas, such as social sciences, neurosciences, and cognitive sciences, was examined. Thus, a brief overview of recent decades was obtained about the integration of the Phenomenological and Hermeneutical traditions in the aforementioned disciplines.

The methodological proposal involved analyzing the core concepts of urban-architectural design and observing what changes in theories and concepts occurred during the constructive traditions of modernism, postmodernism, and phenomenological architecture. In this way, some examples of the aforementioned experiences are briefly examined here in light of the theoretical changes indicated, such as the meaning of places (for example, public space), the "atmosphere" or sensation perceived in symbolic interaction, and empathy ("putting oneself in another's shoes"), as a cognitive resource to understand the point of view of the inhabitant. Other conceptual expressions from phenomenology are addressed, such as "inter-corporeality", "world of life" and "production of meaning", which allude to the experience of directly perceiving the built works as a resource available to designers for future projects.

Then, how the phenomenological tradition permeated the architecture of the second half of the previous century is presented, to then present the results of the review of the concepts mentioned (empathy, *attunement*, world-of-life, *Stimmung*); all related to the ability to inhabit, that is, to give meaning to the places where one lives. It will be seen, in the end, that the topic developed in this work requires an interdisciplinary and humanistic approach, based on interpretative-comprehensive and phenomenological methodologies, which give preponderance to knowledge *a posteriori*, one that is obtained through experience.

Design, Meaning, and Everyday Life.

It should be recalled that between the 1950s and the 1970s, there were different events in urban and architectural design that can be considered evidence of the aforementioned changes. In his preface to the fourth edition of his seminal book, *Space, time and architecture* (1948), Sigfried Giedion claimed that a period where thought and sensitivity walked separately had been left behind and that he was trying to "(...) show how that rupture between thought and sensitivity occurred" (2009, p. 15).

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One of the features that were defined in that New Tradition in architecture (Giedion, 2009; Norberg-Schulz, 2005) is the change in the conception of notions such as 'space' because, as said above, it ceased to be understood as a mere container of objects in the world, and began to be seen as a space full of qualitative (phenomenal) experiences and meanings. Thus, with postmodernism, the quality of architectural forms was emphasized: that of being signifiers, in reference to the semiological principles of language that distinguish between the signified and the signifier, inasmuch as they refer to different properties of linguistic signs. Later, the proposal that the signified in architecture is not limited to the visual, but also to the psycho-social, that is, to the actions and interactions that occur in the built space, where emotions, understood as constituent elements of social cognition, also occur, will be shown.

As for postmodernism, which began in the post-war historical period, and that took root during the 1970s, and flourished in the following decade, a difference has been pointed out (Otero-Pailos, 2010) between historicist and phenomenological architecture, under the argument that to investigate the intellectual content of history, as well as the historical significance of buildings, architects must use their own means through the physical experience before the buildings themselves. Indeed, several design theorists drew attention to the importance of experiencing personally, corporally, the built forms as instrumental to the design itself.

On the other hand, since Cartesian dualistic epistemology-psychology was incorporated into 17th-century European thought to better understand architecture in its semiological dimension (Pérez-Gómez, 2015, p. 219), this meant an intellectual judgment of the signified based exclusively on its visual qualities, as has happened with poststructuralist and deconstructivist philosophers and architects until today. However, here lies the problem of signified, as will be seen in the results of this work, which goes beyond the visual qualities of architecture to be placed in the social and symbolic interactions inherent in the Vitruvian *utilitas*. Thus, the signified and the sensitive experience seem inescapably linked, not only to the visual but to the corporal, kinesthetic, and socialized through communicative and symbolic interactions.

Phenomenological architecture, as a constructive, theoretical, and critical current of design, starts at the beginning of the second half of the 20th century, from the interest aroused mainly by thinkers such as Edmund Husserl, Martin Heidegger, Maurice Merleau-Ponty, and Gaston Bachelard (Pérez-Gómez, 2016; Otero-Pailos, 2010; Mallgrave, 2011; 2013; 2018).

Pérez-Gómez (2016) has pointed out the problem of meaning in the context of a "crisis of modern science", agreeing with other authors mentioned here in stating that "(...) the Cartesian model of knowledge fails to explain how feelings are shared in the everyday world, how our bodies express such feelings, to which, in turn, others respond" (Pérez-Gómez, 2016, p. 27). The author points out, in the introduction of his book

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Attunement. Architectural Meaning after the crisis of Modern Science (2016) that, far from being merely secondary aspects of cognition, feelings, while affecting us emotionally, as neurosciences have shown, participate in human understanding and rational faculties.

In previous works, the authors have pointed out the importance of conceptual categories such as *inhabiting* and *spatiality*, employed in Human Geography and Social Sciences, in addition to Architecture. According to Norberg-Schulz, "...the recovery of the place as a specific 'here' that concentrates a world, presupposes a phenomenological attitude" (2005, p. 249).

This reveals the phenomenology of Merleau-Ponty, following Pérez-Gómez (2016), namely that in everyday life we are "already there" in a social context where our subjectivity is inter-subjective, whether from a non-reflexive habitual behavior to a state of intentional consciousness in that everyday world that is presented to the senses as a coherent whole and, at the same time, depends on our perceptual, intentional, and motor skills. It also shows that one knows oneself through others, through the physical presence of other bodies that also constitute a plane of significance. Returning to Merleau-Ponty, Pérez-Gómez uses the term "inter-corporality" to describe the sensation that "other people's intentions inhabit my body, and mine theirs" (2016, p. 27). For this reason, the expression "world of life" is so relevant in the phenomenological tradition, since it is in everyday life where feelings and emotions are shared collectively as an "atmosphere" with which we are collectively in tune (Pérez-Gómez, 2016, pp. 3, 28, 29, 93; 2015, pp. 228, 229; Mallgrave, 2018, p. 44).

Therefore, regarding the proposal advocated in this paper about what the available means for the designer to know the emotional life of the people are, the argument is that to understand the point of view of other people, one needs a kind of knowledge that is only learned, as was said, through experience, through action and social interaction, and, in particular, by feeling empathy, as will be developed in the next section of the text. And, according to Pérez-Gómez, urban architecture is, at the same time, a symbolic and significant plane where limits and habits are established, and where its buildings do not appear primarily as an object. but that are presented within the practical purposes or intentions of its inhabitants (2015, p. 228). (See also: Mallgrave and Goodman, 2011, p. 211; Mallgrave, 2013, pp. 62, 145).

As for the urban layout, buildings, and public spaces, it seems useful to recall the distinction made by the anthropologist Tim Ingold (cit. in Mallgrave, 2018, p. 51), from a perspective of the builder and another from the inhabitant, whereas for the former it matters more to plan and build housing which is adapted later by its future inhabitants, while the perspective of the inhabitant is posed the other way around: the home is something that emerges as part of the processes of life. Thus, the emphasis of the design activity no longer falls directly on the building's structure. but on the type of experiences and activities that take place inside (Mallgrave, 2018).

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The Metaphors of Inhabiting

As was the case with architecture, several disciplines have been influenced by the phenomenology of Husserl and Merleau-Ponty, and by the existentialist philosophy of Heidegger, which configures new ways to approach the classical problems of philosophy, for example, the idea that the space is inhabited by assigning meanings, and that inhabiting is possible to the extent that the architecture, in a Vitruvian sense, considers as a whole both well-being and aesthetic forms (Pérez-Gómez, 2016; Sharr, 2018).

Heidegger and philosophical hermeneutics also have the idea that language is primarily poetic, that is to say, metaphorical, which is why Pérez-Gómez (2016, p. 11) is interested in the importance that the design of a poetic language acquires. But, as indicated above, meaning is no longer exclusive to the visual, or even verbal language. For this reason, the idea of the metaphors of inhabiting is addressed here, as already suggested by authors such as Kenneth Frampton (1999), Harry F. Mallgrave (2013), Pérez-Gómez (2015; 2016), and Pallasmaa (2011), among others. But the metaphor, "(...) more than a mere rhetorical or linguistic figure of speech, constitutes a human process by which we understand and structure one domain of experience into another of a different type" (Frampton, 1999, p. 21). From this perspective, the lived experience can in principle be understood as the "raw material" of the metaphor, and it is, in short, the way to understand Rasmussen's words: "It is not enough to see architecture; one has to experience it" (2014, p. 31).

In this sense, the word "experience" begins to make sense in the New Tradition, so it is fundamental to discern three ways in which it can be understood, according to Montaner: as the emphasis on the lived experience (the personal history of the subject, the experience of the users of the building space); as a cognitive process of perception through the stimulus of the senses; and as experimentation "(...) open and intentional towards the future" (2014, p. 27).

On the other hand, in the chapter, *The Atmosphere of Place*, from his book *From Object to Experience. The New Culture of Architectural Design*, Mallgrave (2018) addresses the difference in the meaning of concepts such as "space" and "place", recalling the efforts of authors such as Bruno Zevi, Kevin Lynch, Edward Hall, and others, to distinguish the importance of places and their meanings. In turn, said authors were influenced, as has already been mentioned, by philosophers such as Heidegger, Merleau-Ponty, Bachelard, and Bollnow, etc., from which Norberg-Schulz takes the basis for distinguishing between *architectural space* and *existential space*, consolidating the philosophical category of "experience" in the vocabulary of the New Tradition.

Peter Zumthor deliberately expressed that, when thinking about architecture, certain images emerged from his childhood and how he perceived the dimensions of the inhabited space then:

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> "(...) Sometimes I can almost feel a particular door handle in my hand, a piece of metal shaped like the back of a spoon. I used to take hold of it when I went into my aunt's garden. That door handle still seems to me like a special sign of entry into a world of different moods and smells" (2017, p. 7)

However, it must be understood that the term "experience" also refers to social and symbolic interaction and, in that direction, the meanings of interaction do not occur exclusively at the level of discourse, not even of language itself, but images, embodied metaphors, visual icons, urban layouts, and other forms of signifying elements.

Thus, as for the experience, the "atmosphere of places" depends not only on the senses (sight, hearing, smell, etc.) through which the immediacy of inhabited places is perceived, but also refers to the intentionality of actions and interactions between people who are aware of them (Mallgrave, 2018, p. 44). As this author mentions, today there is a renewed interest in these conceptual categories coming from phenomenology, both in the neurosciences and in cognitive sciences, because of the new technologies to observe brain processes.

Inhabiting as a Production of Meaning

The expression "metaphors of inhabiting" was used above, certainly, as a way of alluding to the subjective life of people, so it is ideal to turn to Pérez-Gómez when he points out that emotions are not "merely subjective" experiences (2016, p. 27) but that, as perceptual experiences, they are linked to places and, therefore, configure a stage where actions and thought itself are organized.

In this paper, it is argued that perceptual experience is integrated into pragmatic, social, and cultural contexts, and that much of the semantic work (the formation of perceptual content) is favored by objects, structured situations, and everyday events. For example, when walking, not only a muscular force is exercised, but certain goals and intentions to do so are covered, in addition to the fact that gestures and attitudes of other people are found, which are imbued with meanings and usually constitute a vital structure of existence, or, following Merleau-Ponty, a "human order" (cit. in Mallgrave, 2011, p. 110) that is continuously created through culture, art, architecture, and language.

When referring to the question of meaning, one must add that of sense; the phrase "inhabiting as a production of meaning", which starts this section, alludes to the human cognitive ability to assign meanings to the already mentioned world of life, that is, to the places where one lives and also to what others do and say. It is considered here that the meaning (of what social agents do and say, of a phrase, sentence or text, image, symbol, etc.) poses various challenges both in the social sciences and in philosophy and architecture. As a historical reference, it

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Figure 1. Front paving of Juan de San Miguel, in Morelia, during an exhibition of offerings to celebrate the Day of the Dead.**1** Source: Images by F. J. Fuentes F.

Figure 2. Plaza de los Mártires, Morelia. **2** Source: Images by F. J. Fuentes F.

1, 2 "(...) The city is an instrument of metaphysical function, (…) structuring action and power, mobility and exchange, societal organizations and cultural structures, identity, and memory. (...) in such a way that the same set of geometric shapes or objects does not mean the same thing for different human collectives" (Pallasmaa, 2016, p. 47).

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Figure 3. Cathedral of Morelia.**3**
Source: Images by F. J. Fuentes F.

is important to review the distinction made by philosopher Wilhelm Dilthey, from which the route of the emergence of qualitative, or interpretative methodologies of Social Sciences can be followed, because while Natural Sciences (*Naturwissenschaften*) are based on the hypothetical-deductive model of the scientific method, the Sciences of the Spirit (*Geistenwissenschaften*) do so in the model of understanding, that is, in the production of meaning from the historical context.

In brief, social cognition, understood in principle as a production of meaning by the city's actors, turns out to be, equally, an epistemic tool for the activity of urban and architectural design. Knowing others does not seem to be only a cognitive process whose causes must be sought in the functions of the brain, but also in social and symbolic interactions and representations which, among various aspects of research, present the problem of meaning, that is, the meaning of what socio-urban actors do, say, or feel. Here, the term "empathy" has been taken as an example to address the problem of social cognition, namely, to raise the question of how to get to know others, the rest. Does one

3 "(...) The city is an instrument of metaphysical function, (…) structuring action and power, mobility and exchange, societal organizations and cultural structures, identity, and memory. (...) in such a way that the same set of geometric shapes or objects does not mean the same thing for different human collectives" (Pallasmaa, 2016, p. 47).

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Figure 4. F Street. I. Madero. Mexico City. The built context as a significant factor in social actions and interactions. Source: Image by F. J. Fuentes F.

put oneself in the shoes of others to know about their emotions and feelings, or does one elaborate theories by handling concepts? (Figure 1, Figure 2 and Figure 3)

It seems clear that social cognition can be assumed as a type of metaphorical thinking, and this is fundamental for the understanding of the world, since only in this way the possibility of overcoming the system of language signs to the world of life, arises. It is, therefore, a primary condition in which humans are incarnated or "embodied" beings (Mallgrave, 2013, p. 57). According to Pérez-Gómez, the meaning of existence appears deeply rooted in human biology, where "(...) emotions - desire, etc. - are perceived as a purpose of our actions, in particular, when they are framed by architectural space" (2016, p. 226). As an aspect of the problem of the sensitive and emotional experiences to the building space, the topic of empathy has been of interest because of the recent discoveries in neuroscience on the role that "mirror neurons" play in the experience: the great importance of such cells, mirror in the empathic capacity of individuals, to recognize what others are doing, is a "neural pre-requisite" for the development of interaction and communication (Mallgrave, p. 2011; 2013; 2015; 2018).

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Figure 5. Aqueduct of Morelia, and Paving of Antonio de San Miguel; in the background, the Fountain of the Tarascas. Source: Image of F. J. Fuentes F.

On the other hand, from phenomenology, the word "empathy", *Einfühlung* (Mallgrave, 2018, pp. 45, 53, 68, 99), has resurfaced in different fields because of the technologies to monitor the brain that make it possible to examine the neurological processes that allow us to relate to others. In this context, the feeling of empathy can be understood as related to social cognition, that is, to how all humans learn to know others, and the rest. It is also worth highlighting the relevance of various qualitative or phenomenological experiences related to shapes, textures, volumes, voids, and, in synthesis, the different historical layers that are being added to historical cities. It is, to recall Gordon Cullen, a sum of visual perspectives, the position of the body among other bodies and objects, and architectural and psychological contents such as color, scale, style, materials, and proportions. Cullen thus employs a phenomenological vocabulary to highlight the hidden qualities of built and urban space. (Figure 4 and Figure 5)

DISCUSSION

Following the approach that the urban-architectural design activity must take to support enactive knowledge through emotions such as empathy, to get to know the other, the inhabitants, and to apply that knowledge in future projects, it should be noted that, while one depends on the activity of a highly complex organ such as the brain, this is, in turn, engaged in a socio-architectural, ecological and cultural context, in which all people live. (Robinson & Pallasmaa, 2015; Pérez-Gómez, 2016; Gallagher, 2017; Gallagher & Zahavi, 2013; di Paolo, Cuffari & de Jaegher, 2018). Several theorists have proposed reviewing the role of the brain in the ability to experience feelings of empathy (or rejection) before certain places and before certain groups of people and "atmospheres" or spaces of

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social and symbolic interaction. Additionally, it has been sought to unravel how "the immediacy of the surrounding world" is perceived, not only in the built forms and the urban layout, but also in the presence of other bodies (Mallgrave, 2013; 2015), as if it were a coherent whole, endowed with meanings.

Regarding the problem of the meaning of built forms, it was mentioned above that, due to a Cartesian dualistic vision, until the middle of the previous century, it was considered that these meanings were established from exclusively visual qualities. But the first conclusion from this research points out that meanings are socially constructed through the social and symbolic actions and interactions of the actors. It is in the inter-corporality and the encounter with others, as well as in the possibilities of action that are presented in public spaces, buildings, monuments, and the urban layout, that meaning is produced and meanings are constructed.

Getting to know others, what they think, feel, and imagine, and what they say and do, seems to be the challenge for designers, but also for social scientists, geographers, social psychologists, urban anthropologists, etc., facing the manifestations of culture in its semiotic dimension, whereas that dimension does not only happen at the level of language or writing, but rather in social interactions, in intersubjectivity and their imaginary and collective representations, in social and symbolic interactions, and in the inter-corporality, as noted in the phenomenology of Merleau-Ponty.

From this point of view, it may be understood that phenomenological architecture is also marked as critical in several ways, both by its break from the formal tradition of modernism, its theoretical reflection on the mental and emotional lives of people living in cities, and the knowledge that one can get on them, by which this current can be identified as one of the sources of the less examined postmodern architectural thought (see Otero-Pailos, 2010).

It is added here that phenomenological architecture is also a good example of interdisciplinary research based on the new conceptions of knowledge, society, and the mind, those of a phenomenological, hermeneutical (interpretative), and comprehensive nature. In this regard, it is necessary to highlight that the phenomenological cognitive sciences model should be understood from a critical discussion of the notions that have been extensively examined in the literature, such as the idea of scientific empiricism (the assumption that one objectively perceives real facts), and that the meanings of actions and social interactions are explained by neurochemical events that occur in the brain.

Since, at this point, it is essential to integrate different disciplinary levels, it must be emphasized that an interdisciplinary proposal requires a theoretical-epistemic approach that the different disciplines can share, instead of each of them working from theoretical approaches limited to their epistemic boundaries. The phenomenological tradition, inseparable

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from hermeneutics and the comprehensive method of the Sciences of the Spirit, offers new ways of asking and responding to those old questions that will continue to permeate design schools: time-space (or interior-exterior), the meaning of built forms, and the qualitative experience of inhabiting cities.

CONCLUSIONS

When it is proposed that design specialists can learn to know others not only through statistical and predictive methods, but also through empiric ones, it is because there is the notion of knowledge that is obtained through experience: enactive knowledge. Bridging the gap between thought and emotion, between reason and feeling, as the architects who refused to sign the Charter of Athens, in 1943, wanted, has been a challenge in several disciplines and mentioned in this writing, mainly because human subjectivity - everything that one assumes to be "in the mind" or "in the head" of people - continues to challenge the foundations of Cartesian dualist thought, of Newtonian physics, and, in short, of the model of analytical philosophy. Instead, phenomenological architecture has shown that neurosciences and cognitive sciences can, at the same time, integrate an interpretative and comprehensive methodology that allows fully understanding the role of emotions and their meanings in inhabited space, therefore understanding how the built space influences people's daily lives.

While one depends on the activity of this highly complex organ, today it is clear that the brain is, in turn, engaged in a socio-architectural, ecological, and cultural context, in which all people live, as confirmed copiously in several proposals that today are associated with constructivism and new models of human cognition, such as the theories of situated cognition, of the embodied mind, and of enactive knowledge.

As it was laid out, a new way of understanding the space has led to a new conception of knowledge and, hence, during the second half of the last century, a qualitative methodology has emerged in the Social Sciences (Human Geography, Sociology, Phenomenology, Social Theory, Cultural and Urban Study), and also the interpretative, cultural, hermeneutical and phenomenological approaches, in scientific disciplines such as neuroscience and cognitive science, by which one can speak of new approaches or currents of integrative or interdisciplinary studies. It is in the latter case where studies on social cognition are found, where it is proposed that socio-urban agents or actors share cognitive models of an enactive nature, that is, they learn through practice, through action (Gallagher & Zahavi, 2013; Gallagher, 2017; Stewart, Gapenne & di Paolo, 2014; di Paolo, Cuffari & de Jaegher, 2018). This theoretical model of knowledge is also taken on by the new theories of Urban-Architectural Design (Robinson & Pallasmaa, 2015; Mallgrave & Goodman (2011); Mallgrave (2011, 2013, 2015, 2018), which also point out that interdisciplinary character, that integration between sciences and humanities.

From there lies the need for an interpretative theoretical-conceptual framework that promotes the development of housing projects that give primacy to phenomenal experiences and their meanings. The concepts of inter-

corporality, and social interaction, allow one to observe a new structure or new dynamic system that always goes beyond the intentions and actions of the individuals involved, and what developmental studies show is that all personal narratives originate in encounters with others, and incorporate in the subjects, part of their own life history, and this is reflected in said interaction.

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Art Deco Standard Schools in Rio Grande do Sul: The Relationship Between Architecture, Education, and Politics[1]

ESCOLAS PADRÃO ART DÉCO NO RIO GRANDE DO SUL: RELAÇÃO ENTRE ARQUITETURA, EDUCAÇÃO E POLÍTICA

ESCUELAS ESTÁNDAR ART DECO EN RIO GRANDE DO SUL: RELACIÓN ENTRE ARQUITECTURA, EDUCACIÓN Y POLÍTICA

Figure 0 Assis Brasil School. Source: Authors' collection (2020).

1 This article is based on the master's thesis about Art Deco Architecture in the schools of Rio Grande do Sul during the Estado Novo period (1930-1950). This work was supported by the Coordenação de Aperfeiçoamento de Pessoal Improvement of Higher Education Personnel - Brazil (CAPES) - Funding Code 001

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RESUMO

O projeto para escolas de arquitetura padrão no estilo Art Déco, construídas entre as décadas de 1930 e 1940 no estado do Rio Grande do Sul, no Brasil, pretendia, a partir das características do ambiente construído, transmitir à população os ideais do governo autoritário de Getúlio Vargas durante o período do Estado Novo. Atendendo às demandas arquitetônicas, políticas e educacionais, os aspectos formais e funcionais dessas instituições de ensino, tencionavam controlar o comportamento dos estudantes, enaltecer o poder do Estado e corresponder a um símbolo de progresso e ordem. Por meio de análise bibliográfica, documental e observação do ambiente construído, com estudo de caso realizado no Instituto Estadual de Educação Assis Brasil, localizado, no Sul do Brasil, na cidade de Pelotas/RS, esse trabalho tem o objetivo de identificar como as escolas padrão *Art Déco* serviram como instrumento ideológico do Estado. Mediante esta análise, observou-se que o prédio escolar, as práticas políticas e os métodos pedagógicos, de maneira conjunta, agruparam e direcionaram os estudantes a um modelo ideal proposto pelo Estado.

Palavras-chave: *art* déco. arquitetura escolar. arquitetura moderna. política cultural. nacionalismo.

RESUMEN

El proyecto de escuelas de arquitectura estándar en estilo Art Deco, construidas entre las décadas de 1930 y 1940 en el estado de Rio Grande do Sul, Brasil, pretendía, a partir de las características del entorno construido, transmitir los ideales de lo gobierno autoritario de Getúlio Vargas durante el período del Estado Novo. Dadas las exigencias arquitectónicas, políticas y educativas, los aspectos formales y funcionales de estas instituciones ellas estaban destinadas a controlar el comportamiento de los estudiantes, exaltar el poder del Estado, correspondiente a un símbolo de progreso y orden. A través del análisis bibliográfico, documental y observación del ambiente construido, con un estudio de caso realizado en el Instituto Estadual de Educação Assis Brasil, ubicado en el sur de Brasil, en la ciudad de Pelotas/RS, esta obra tiene el objetivo de identificar cómo las escuelas estándar Art Deco sirvieron como instrumento ideológico del Estado. A través de esto análisis, se observó que la construcción escolar, las prácticas políticas y los métodos pedagógicos, integrados, agruparon y orientaron a los estudiantes hacia un modelo ideal propuesto por el Estado.

Palabras clave: art deco. arquitectura escolar. arquitectura moderna. política cultural. nacionalismo.

ABSTRACT

The project of schools built following Art Deco standards, which were built between the 1930s and 1940s in the state of Rio Grande do Sul, Brazil, intended, starting from the characteristics of the built environment, to transmit the ideals of the authoritarian government of Getúlio Vargas, during the New State *(Estado Novo)* period. Given architectural, political, and educational requirements, the formal and functional aspects of these establishments focused on controlling student behavior and exalting State power, as a symbol of progress and order. The purpose of this work is to identify how the schools built following the Art Deco standards acted as an ideological instrument of the State, through bibliographical and document analysis, and an observation of the built environment, together with a case study made at the Assis State Education Institute, Brazil, located in the south of the country in the city of Pelotas/RS. Through this analysis, it was seen that the integrated school construction, political practices, and teaching methods, grouped and guided students towards a State-proposed ideal model.

Keywords: art deco, school architecture, modern architecture, culture policies, nationalism.

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INTRODUCTION

The standard schools**2** built following the *Art Deco* style of architecture in the state of Rio Grande do Sul, Brazil, designed by engineer João Baptista Pianca during the 1940s, were thought of in a historical context marked by the policy of nationalization of immigrants, by the insertion of the New School, or *Escola Nova,* teaching method, and by new construction techniques that led to the rationalization of buildings, using reinforced concrete. These buildings acted to shape students, promoting a homogenization of society, and reinforcing patriotism (Cabral, 2020).

In the state of Rio Grande do Sul, from the political frictions that preceded World War II, nationalization measures were proposed that stipulated regulations to the school environment, such as the prohibition of using foreign languages and the construction of new buildings for teaching (Werle, 2014). At the same time, the new school pedagogical method**3**, proposed changes in the layout needs of school institutions, adding spaces such as an auditorium, entrance hall, and library, to provide training based on social relations (Oliveira, 2007).

In Brazil, the *Art Deco* language became a symbol of progress, the pure forms - with the use of straight lines referenced in the movement of airplanes, ships, and cars – marked the authoritarian government of Getúlio Vargas during the New State, or *Estado Novo*, period (Segawa, 1997; Manzo, 2010). The hygienist parameters, in force at that time, led schools to introduce spaces for medical and dental care, where items that allowed good ventilation and lighting for classrooms were valued (Viana, 2011; Alves, 2011).

The Vargas government, in the *Estado Novo* period (1937-1945), followed the temporal, political, and ideological way of other authoritarian European regimes that used architecture to consolidate a political image. The influences of German Nazism and Italian Fascism were used to restructure the country's educational system, as seen in the speeches of the Minister of Education and the President of the Republic of the time (Ribeiro, 1991). Vargas also expressed support for nazi-fascism between 1934 and 1937, and through the progress and monumentality of the constructions the power of his government was transmitted (Ribeiro, 1991; Chaves, 2008).

In the state of São Paulo, in the Southeast region of Brazil, institutional buildings, with an *Art Deco* language, built between 1930 and 1945, served as government propaganda, forming part of a new era of Brazilian administration. As Oliveira (2008) outlines, buildings with fascist architectural properties were built throughout Brazil, for cinemas, radio stations, and theaters, linking monumentality and progress to the building. In the state of Rio de Janeiro, 11 public *Art Deco* buildings, with imposing characteristics, using guidelines already used by political regimes, communicated the authority of the regime (Manzo, 2010).

2 The standard schools emerged through the application of standardized projects, which were replicated in an identical or similar way in different regions of the country. The standard design, despite not considering cultural and climatic issues, was used with the intention of optimizing the design and construction process, being widely applied in Brazil for public institutions.

3 The *Escola Nova* teaching method was applied in Brazil by the Government of Getúlio Vargas, to reformulate teaching, providing accessibility to school and education (Valdemarin, 2010).

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In the 19th and 20th centuries, educational institutions, as part of a political instrument of institutional and educational representation, promoted research by intertwining politics and school architecture as a disciplinary medium. According to Espinoza (2017), public education buildings in Argentina are part of a design tradition established between 1884 and 1910, related to the association between school architecture and public policies. According to Ramírez (2017), the typology adopted in Public School projects in Colombia was influenced by ideological issues of the government and the pedagogical method.

METHODOLOGY

In this way, the rules set out for educational institutions in the early 20th century, which followed a rigid outline of schedules, curricula, and grades, had the purpose of controlling and indoctrinating students, consolidating school facilities as tools of social control. Considering that school architecture materializes the political and pedagogical discourse in force in its layout (Frago & Escolano, 2001), the purpose of this article is to identify how standard *Art Deco* schools acted as an ideological instrument of the State. Within the exploratory research, a case study was conducted in a building of the Instituto Estadual de Educação Assis Brasil (Assis Brazil State Education Institute), located in Pelotas/RS, in the southern region of Brazil, using the following methodology: Bibliographic review, document analysis, and observation of the built environment.

The literature review was based on references that link school architecture and state ideology. The document analysis was based on the data presented in Cabral (2020), as well as little-known documents from the collection of the Asiss Brasil State Education Institute (Instituto Estadual de Educação Assis Brasil) and others provided by the Secretariat of Public Works of Rio Grande do Sul, with original scanned or photographed architectural projects from the 1940s. The observation was done following the work of Sommer & Sommer (2002), seeking behavioral signs in a non-intrusive manner, that were recorded in photographs. The analysis of the data collected is qualitative, following the content analysis of Bardin (1977). The following were examined: the positioning of the rooms in the floor plan, their dimensions, the presence of furniture, and comparisons between internal and external areas.

The Assis Brasil State Education Institute, in the city of Pelotas, in the state of Rio Grande do Sul, was chosen as a case study, because within the standard *Art Deco* school design it is classified as the largest project, built in the 1940s, and one that has some of its historic material preserved. This article is based on other research regarding the standard *Art Deco* schools of Rio Grande do Sul, addressing a specific view that has not yet been addressed in other texts. Relevance is placed on standard *Art Deco* schools in Rio Grande do Sul regarding identification and documentation and the tangible and intangible heritage (Cabral, Cordeiro, Oliveira, 2020; Cabral & Oliveira, 2018). Thus, this article will address these schools as an instrument of state control.

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The influence of school space

Public buildings, such as schools, are thought of to meet community needs, and at the same time to mark political management, showing power and regulation (Alves, 1998; Kowaltowski, 2013). The use of the school buildings, related to political, ideological, social, educational, and cultural issues, can guide the behavior of people who experience it through the pedagogical method, organization, forms, and dimensions of the construction. Education should normalize, standardize, and establish a love for the motherland and a profession, addressing this ideologically. "Education produces producers, produces consumers, and at the same time standardizes, classifies, divides, imposes rules, and sets the limit of the pathological" (Fourquet & Murard, 1978, p.118).

Educational institutions adopted methods of control and power that presented specific aspects depending on their temporal, geographical, and cultural location. The features of these methods, which were taken on in different periods, can be identified in tangible and intangible symbols that make up the school culture. The raising of flags, the singing of the national anthem, gestures, and greetings demonstrate the condition of respect and are part of a ritual (Escolano, 2017).

The layout of spaces is linked to a regulated system of order and positioning, continuous movement, separation into small groups, and visual control. Disciplinary conditioning can be understood as a means to establish authority and power to shape society. The school becomes a "machine for teaching, but also for overseeing, for hierarchizing, and for rewarding" (Foucault, 2018, pg.144).

The school building has an educational role and, through codes, can influence the behavior of individuals. Public schools, in addition to meeting pedagogical needs, act to standardize behavior through collective meanings, responding to the ideals of the State. The internal arrangement of spaces and the delimitation of schedules are instruments of control and coercion. For students, teachers are people who demand respect and authority (Escolano, 2017). The pedagogical method, as one of these tools, does not favor students' critical thinking. In this way, in this "distorted vision of education, there is no creativity, no transformation, and no knowledge" (Freire, 2021, P.81).

The ceremonies that take place in teaching environments are transformed into messages that influence human behavior. This ritualistic conformity in the students' actions makes their standardization visible which, for a moment, makes them equal, as a piece that is only complete when attached to the whole (Escolano, 2017). The actions that influence the behavior of the school community, as something camouflaged, not evident, can be referred to as a hidden curriculum (Alves, 1998).

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In this way, based on the historiographical documentation and understanding that the school, as an architectural piece, has tangible and intangible meanings, which are rooted both in the inside and outside of the building, reiterating the purpose of this work, intended to identify, through the analysis of some spaces, in particular the case study of the Assis Brazil I.E.E: building, how the standard *Art Deco* schools acted as an ideological instrument of the State.

The standard Art Deco schools

Art Deco buildings have rational, functional, and economic characteristics, where the striking points are the spaces of semicircular floor plans, the use of corner windows, and terraces (Correia, 2010). The reference to the speed of the machines is present in the friezes of the facade, the curved elements that resemble the bow of a ship, and the frames that improve the hygiene of the environment. A *Streamline* of *Art Deco* is a metaphor for the sinuous and streamlined shapes, being identified "[...] in the ornamentation and details such as vertical and horizontal striations, grading in artistic metalworking, and objects such as masts and guardrails" (Silveira Junior, 2012, p.144).

The simple and rational *Art Deco* furnishings were inspired by nautical and streamlined shapes, with a predominance of materials such as wood, granite, iron, and velvet (Rocha, 2012). The use of vibrant colors, smooth surfaces, and noble and exotic woods, which were exposed in a functional design that allowed serial production, was typical (Gurgel, 2011). The new technologies, methodologies, and compositions optimized the way of designing and building, and the *Art Deco* expressions were considered progressive (CORREIA, 2010).

The engineer João Baptista Pianca worked at the Public Works Department of Rio Grande do Sul, in Porto Alegre, between 1919 and 1945, and it was during this time that he carried out projects for educational establishments, which were implemented by the state government following the line of authoritarian monumentalism (Weimer, 2004). Through bibliographic and document research, as an example, on accessing the Map Room plans of the Public Works Directorate of Porto Alegre, 39 standard design school buildings were identified with the same formal similarities, spread throughout the Gaucho state, which were divided into five groups, considering the student capacity, of 200, 250, 350, 500, and 750 students (Figure 1). It is observed that the author of the projects named them "standard schools" referring to the standard project.

The standard *Art Deco* school projects of the engineer João Baptista Pianca had the intention of subjectively meeting physical, objective, and behavioral needs. The architecture of these schools was a communication tool, transmitting sociopolitical messages, with formal and functional aspects that portray the intentions of control. Through the presence of elements such as terraces and banners, used in civic acts, added to

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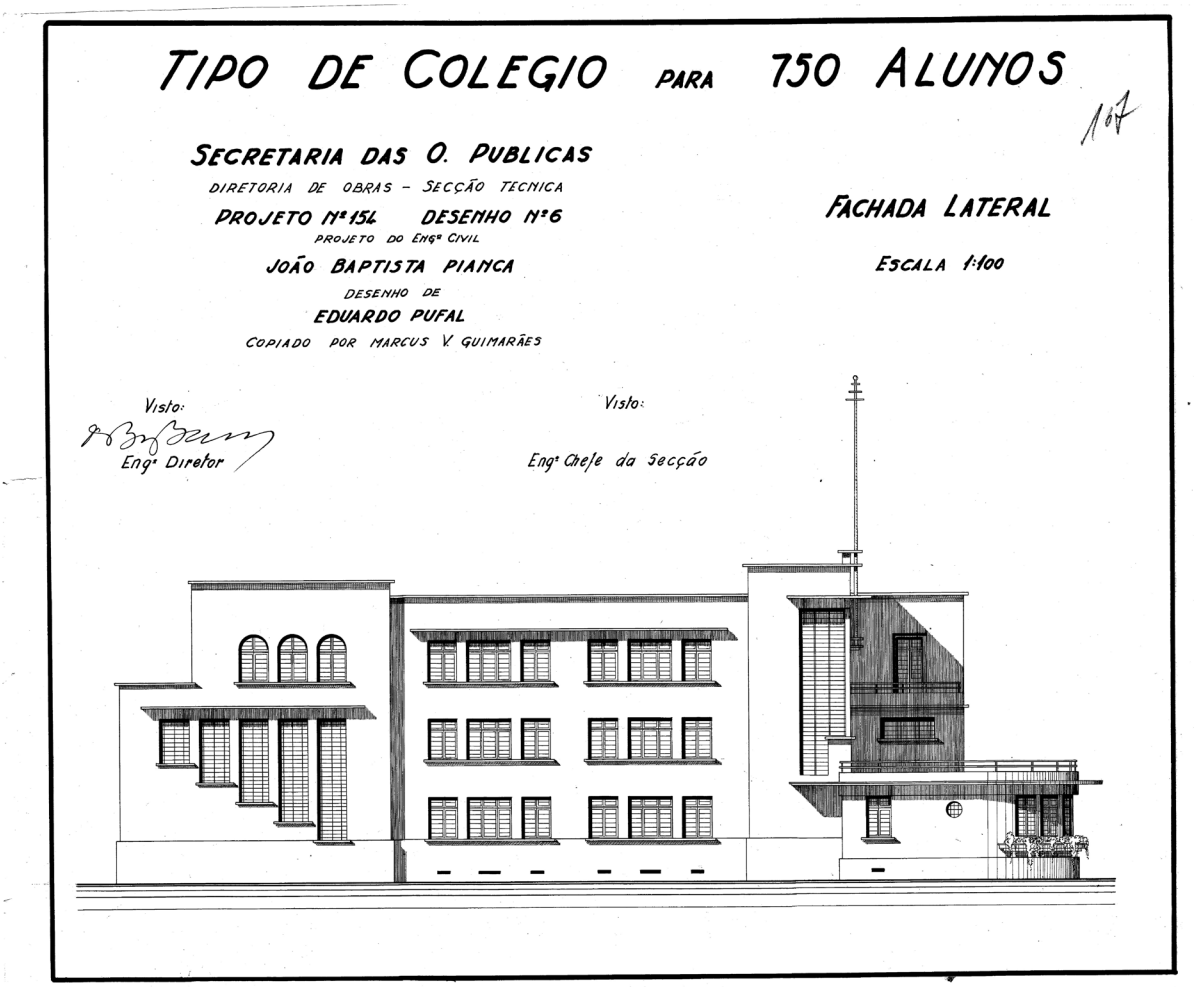

Figure 1 Standard Project for 750 students, main facade. Source: Map Room collection of the Directorate of Public Works/ RS. Accessed: 2022.

the grandeur of the building, and references to progress, school buildings legitimized symbols that represented the government and influenced the school community (Cabral, 2020).

The standard design of *Art Deco* schools, after specifying a model, made it possible that, through some adaptations such as the insertion of basements and the mirroring of the floor plan, the projects were replicated and inserted in different topographies and cities. Regarding schools for 750 students, three buildings were found within the state of Rio Grande do Sul, namely the Assis Brasil State Education Institute (1942), in Pelotas, the Silveira Martins State School (1942) (Figure 2), in Bagé, and the João Neves Da Fontoura State Education Institute (1944), in Cachoeira do Sul.

The Assis Brasil State Education Institute (Figure 3), located in the city of Pelotas, in Rio Grande do Sul, Brazil is part of the standard project layout implemented in the state during the 1940s. The school, with a proposed capacity of 750 students, is located on a corner plot in the city center. The building was inaugurated in March 1942, built by the company Haessler & Woebcke, and is considered an important milestone for the municipality and its community (Cabral, 2020).

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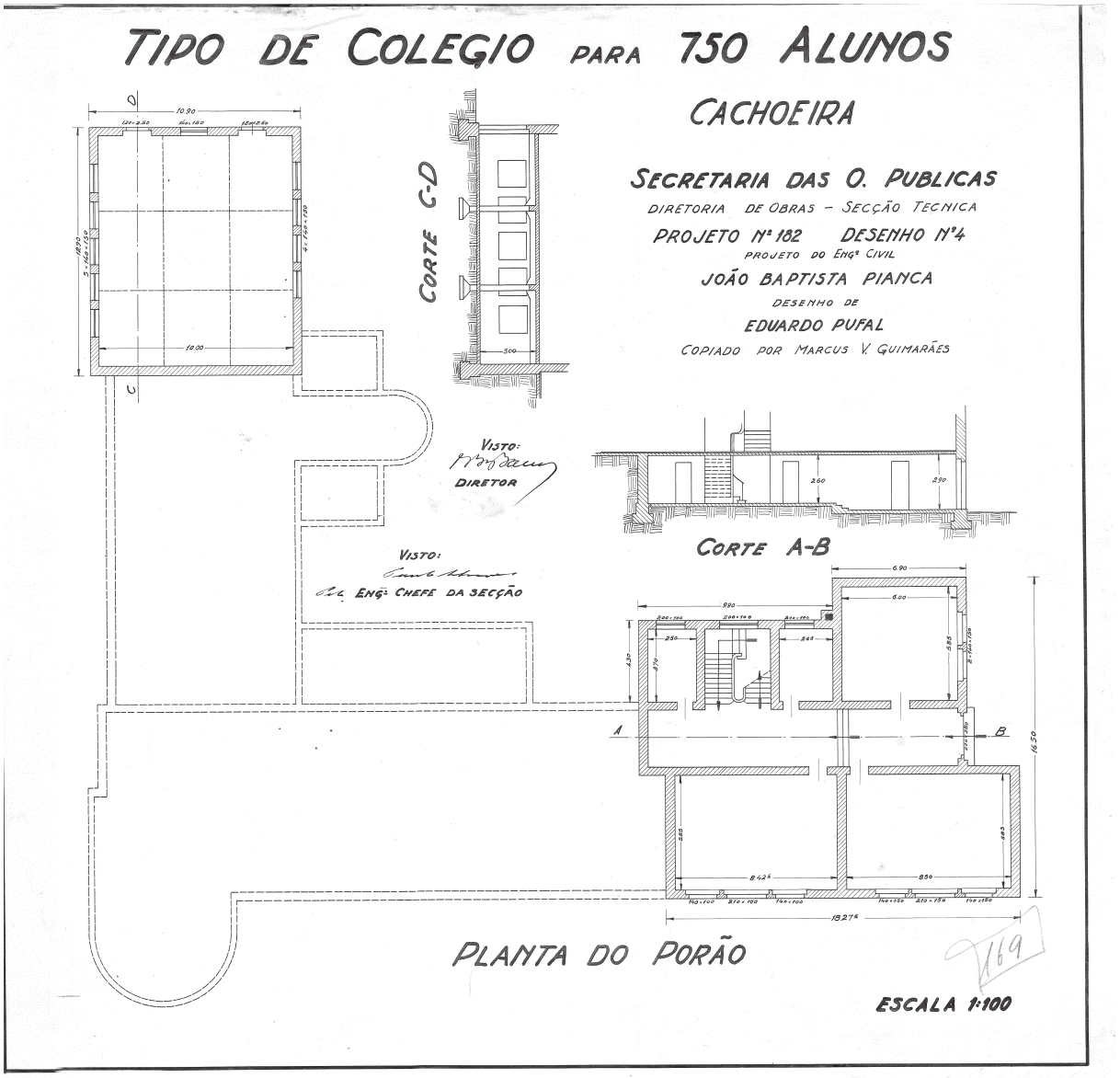

Figure 2 Floor plan of the basement of the João Neves Da Fontoura I. E. E. School. Source: Map Room collection of the Directorate of Public Works/ RS. Accessed: 2018.

Figure 3 Assis Brasil School. Source: Authors' collection (2020).

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Figure 4 Floor plan of the 1st floor and images of the facades of the I. E. E. schools, Assis Brazil, Joaquim Caetano, and Marques de Souza.
Source: Authors' collection (2020).

The school, organized around an L-shaped circulation, has three floors, and the layout includes classrooms, the principal's office, administration rooms, rooms for medical and dental care, a library, auditorium, physics and chemistry laboratories, and terraces, among others. The layout of these standard schools becomes more complex depending on the number of students that attend the institution, considering the *Escola Nova* pedagogical method. Even with the increase in the number of rooms, the standard

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schools have the same L shape. Examples of schools that followed the shape of the Assis Brasil State Education Institute, for 750 students, are the Joaquim Caetano school, for 500 students, in Jaguarão/RS, and the Marques de Souza Institute, for 200 students, in São José do Norte, which have this same pattern (Figure 4) (Cabral, 2020).

DISCUSSION

The Assis Brasil I.E.E. building preserves, both externally and internally, *Art Deco* language characteristics, indicating aspects related to innovation and power. On the outside, the terrace and the banner for raising the flag, used in civic acts, refer to its patriotic nature; and the straight lines allude to the means of transportation (Figure 5). From the document research conducted onsite, it is noted that when singing the national anthem, students attended at a given time, organized in lines, marched, positioned themselves, and performed the ritual, showing respect for the educational institution and the State.

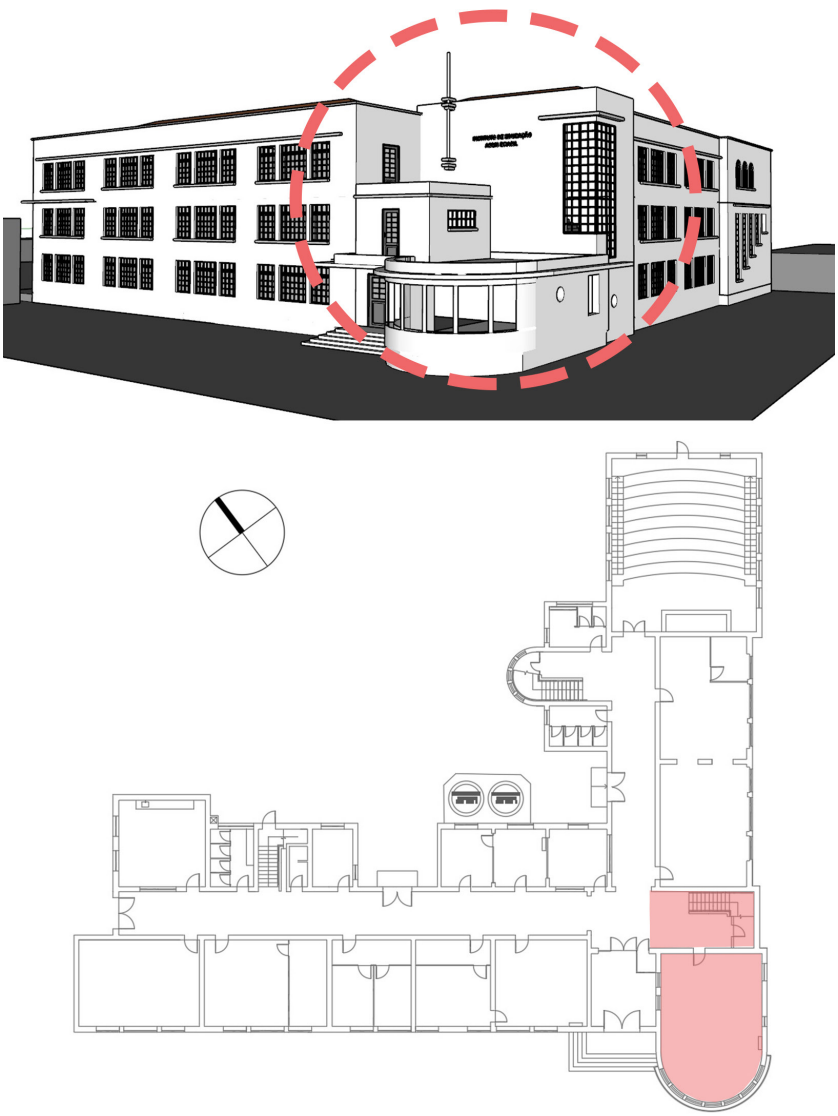

Figure 5 Volumetry and floor plan of the 1st floor of A.B.I.E.E., with emphasis on the elements of the library, terrace, staircase, and mast, 1979.
Source: Authors' drawing.

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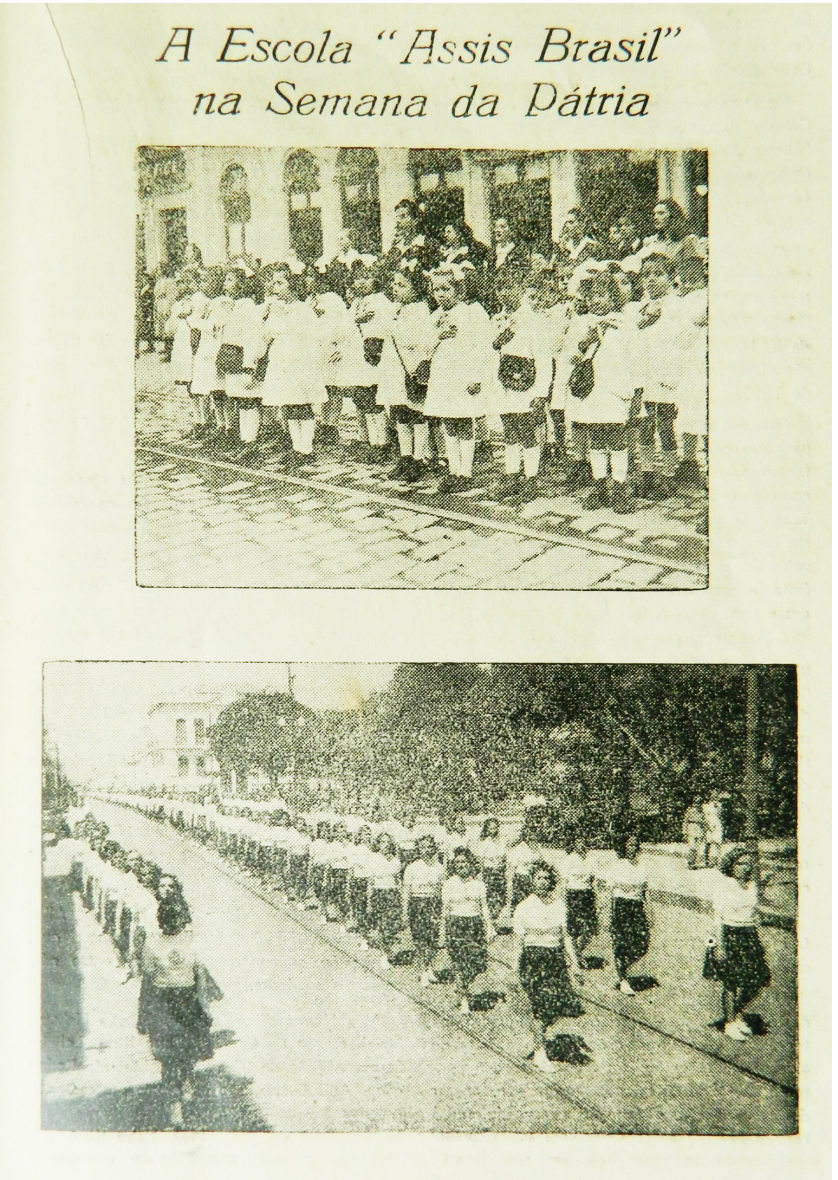

Figure 6 Students of the Assis Brasil school parading in the commemoration of the Jubilee of the institution (1954). Source: Authors' collection.

The implementation of Assis Brasil I. E. E on a corner lot, forming a closed L-shaped volume, guides the internal part of the building to a sheltered space, where the school courtyard is located. The building is organized around two corridors, which together make an L, where the places for innovation, such as the auditorium, the library, and the terraces, are hierarchical. It can be noted that materials such as wood, granite, and hydraulic tile were widely used in the furniture and objects, as well as the red and blue colors that represent the institution. Although the "L " shape can be considered as positive as a criterion of climatic comfort of the building, it delimits the internal and external spaces with the configuration of a sheltered courtyard and is related to the idea of observation and control of students.

The auditorium was proposed in the school's layout to be used as a games room, a place for physical education, music, dancing, parties,

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educational movies, and meetings. The same place would have several functions. The provision of this space, in the Assis Brasil I.E.E., was striking for some students: "I remember that we spent many hours at the glee club and that they then brought together several classes, mainly to play, with different voices, the different musical instruments [...] "(Amaral, 2007, p. 139).

Students, inside the auditorium, played instruments in music classes, and they also took part in recitals on commemorative dates, these being moments of patriotic exaltation, organizational, behavioral, and presentations by the students. The parades were held during Motherland week, the anniversary of the institution, among others, where the students dressed in uniforms and marched through the streets of the city, as can be seen in the institution's document collection (Figure 6).

The existence of an organized concave-shaped grandstand that directs attention to the elevated stage was observed in the auditorium space, configuring a fixed environment. The frames are staggered, and hanging lights are in groups of three, with general lighting, and a wooden floor. The access door, in opaque wood, conveys the feeling of acting as a barrier, ordering that only those who have been invited can come through. It is understood that this stage may be related to a situation of control, power, and exaltation.

The atmosphere of the auditorium is characterized by the mezzanine at the top, which was reserved for the marching band, two pianos on the sides, a closet where the flags were kept, the soundness of the fixed table with the school logo, along with the five chairs at the bottom for the principal and the teachers. It is seen that the wooden seats of the bleachers, for the students, with simpler characteristics, uncomfortable in appearance, are scratched, leaving the question of whether this intervention would be a way of expressing opposition to the behavior imposed by this place.

Classrooms facing the street reduce privacy and silence and expose students, like a showcase, showing the control exercised by the institution over the students, serving as a model to the community for their behavior (Cabral, 2020). This fact corroborates the idea that, at the time, the frames gained a sense beyond the pragmatic because, through the visualization of the discipline practiced, it transmitted an appearance of severity. It is seen that the layout in the classroom respects strict regulations.

The positioning of the teacher, as the highest authority, is close to the board, isolated, and away from the students. The students, organized in rows, with spaces between them, are arranged in such a way as to subjugate before the teacher. The furniture, despite not being fixed to the floor, does not appear to be able to change places but there rather is a certain rigidity, these being the ones that delimit and configure the classroom space (Figure 7).

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Figure 7 Students working in the classroom, A.B.I.E.E., 1979. Source: A.B.I.E.E. Accessed: 2018.

The corridors, as they form an L, present an intersection where the prefect's table was arranged. They had a wide visual field, being able to control all the movements of the students who left the classrooms, referring to Foucault's panopticon concept (2018). This typology, where the environments were organized around two corridors forming an L, used in standard *Art Deco* schools, seems to be related to the intentions that these buildings looked to communicate to the school community.

The teachers' staircase was located in the highest section of the building, which is cut by a wide corner miter, which allows a differentiated view of the outside of the building. In the location of the vertical corridor, it is possible to see the existence of a hydraulic tile floor with a geometric design, handrails, granite steps, and a flat-lining in painted wood slats, common at the time.

CONCLUSIONS

The Assis Brasil I. E. E. building was part of a program implemented by the government in the 1940s and was designed by engineer João Baptista Pianca at a time of social transitions and adversities. The school layout, meeting the needs of the new pedagogical method, hygienist issues, and guiding nationalization and patriotism, was consolidated thanks to the progress allowed by the rational innovations represented by the *Art Deco* style. Its grandeur, added to the characteristics of the building, transfigures the political-social message of control.

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It can be understood that the architecture of standard *Art Deco* schools was a way to convey the messages and ideals of the State, considering the ensemble of the inside and outside of the building. It is seen that the inside environment follows the same discourse presented outside the building, an environment that demands respect, marks behaviors, is rigid, restricts the places of access according to each group, and does not allow differences to individuals, homogenizing them by the same principles. The education of these students was considered as an example and model to be followed and replicated.

Through the small details of organization, of uniformity, the teachers led and disciplined the new nation. Through the analysis made, it is seen, that the students were grouped and directed to the same ideal model. One sees the matrix and the consolidation of behavior that was based on the characteristics of the built environment, transmitting the same messages between generations. The standard *Art Deco* schools, through the union between architecture, the pedagogical method, and the nationalist politics of Vargas, consolidate in the school building political ideals that are transmitted through architecture, monumentality, progressive language, and the new layout; the pedagogical method in the organization and discipline; and politics, in the model of behavior that emphasizes morality and civic actions.

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Interventions at la Moneda Palace, from the 19th, 20th, and 21st centuries. The projects and their architects

LAS INTERVENCIONES EN EL PALACIO DE LA MONEDA DE LOS SIGLOS XIX, XX Y XXI LOS PROYECTOS Y SUS ARQUITECTOS

AS INTERVENÇÕES NO PALÁCIO DE LA MONEDA DO S.XIX, S.XX E S.XXI OS PROJETOS E SEUS ARQUITETOS

Figure 0 Overhead view of Palacio de la Moneda after the bombing, by DA MOP (1973). Source: DARM MOP (2014).

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RESUMEN

El Palacio de La Moneda es la sede de la presidencia y del poder ejecutivo de Chile, del Ministerio del Interior y Seguridad Pública, la Secretaría General de la Presidencia y la Secretaría General de Gobierno. Se constituye como uno de los principales edificios históricos de Chile y el más importante en cuanto a su función representativa actual, ser el palacio de gobierno. Desde su origen, en 1786, el edificio ha sido testigo y protagonista del recorrido histórico-político y social-urbano de la nación, de hechos que se han expresado en su propia metamorfosis arquitectónica y en la evolución del entorno urbano. Diseñado por el arquitecto Joaquín Toesca, discípulo de Francesco Sabatini y profesional de la corte de Carlos III, Rey de España (1759-1788), el Palacio es la principal obra del Neoclasicismo en Chile, la que fue inaugurada en 1805 como Real Casa de Moneda de Santiago para la acuñación de los caudales del reino. Luego de la independencia de Chile, en 1845, se traslada al inmueble la sede de gobierno y residencia presidencial. Es en esta fecha cuando adopta su función representativa y, por consiguiente, cuando se establece la primera modificación importante de su planta, con la cual comienza una dinámica transformadora y de adaptación permanente de su arquitectura, a través de intervenciones sucesivas, actualizaciones funcionales y su reconstrucción tras el bombardeo de 1973. La falta de un registro ordenado y detallado de las permanentes alteraciones, dificulta su comprensión desde su actual estado y hacia futuras intervenciones posibles. Por lo referido, en el presente escrito se procede a la exposición de aquellas de mayor envergadura y carácter significativo para la percepción del edificio, a fin de configurar un primer registro ordenado de intervenciones contemporáneas del Palacio de La Moneda.

Palabras clave: Joaquín Toesca, restauración, reconstrucción, intervenciones contemporáneas, registro ordenado.

RESUMO

O Palácio de La Moneda é a sede da presidência e do poder executivo do Chile, do Ministério do Interior e Segurança Pública, da Secretaria-Geral da Presidência e da Secretaria-Geral de Governo. Constitui-se como um dos principais edifícios históricos do Chile e o mais importante no que diz respeito à sua função representativa atual, já que é o palácio de governo. Desde a sua origem, em 1786, o edifício foi testemunha e protagonista da evolução histórico-política e sócio-urbana da nação, de fatos que se traduziram em sua própria metamorfose arquitetônica e na evolução do entorno urbano. Projetado pelo arquiteto Joaquín Toesca, discípulo de Francesco Sabatini, discípulo de Francesco Sabatini e profissional da corte de Carlos III, Rei da Espanha (1759-1788), o Palácio é a principal obra do Neoclassicismo no Chile, inaugurada em 1805 como Real Casa da Moeda de Santiago para a cunhagem da circulação monetária do reino. Após a independência do Chile, em 1845, a sede do governo e a residência presidencial foram transferidas ao Palácio. É nesta data que adota sua função representativa e, portanto, o momento em que se estabelece a primeira modificação importante do seu plano, dando início a um processo de evolução contínua que se caracterizará pela transformação dinâmica e adaptação permanente de sua arquitetura, mediante sucessivas intervenções, atualizações funcionais e sua reconstrução após o bombardeio de 1973. A falta de um registro sistemático e detalhado das permanentes alterações dificulta sua compreensão em seu estado atual e levando em consideração possíveis intervenções futuras. Por este motivo, no presente texto procedemos à exposição daquelas de maior alcance e de caráter significativo para a percepção do edifício, com o intuito de estabelecer um primeiro registo sistemático de intervenções contemporâneas no Palácio de La Moneda.

Palavras-chave: Joaquín Toesca, restauração, reconstrução, intervenções contemporâneas, registro sistemático.

ABSTRACT

The Palacio de La Moneda, or La Moneda Palace, is the seat of the Presidency and the Executive Power of Chile, the Ministry of the Interior and Public Security, the General Secretariat of the Presidency, and the General Secretariat of the Government. It is one of the main historical and most important buildings in Chile in terms of its current representative function, as the Government Palace. Since its construction, in 1786, it has been the witness and star of the historical-political and social-urban evolution of the nation, of events that have been expressed in its own architectural metamorphosis and the evolution of the urban fabric. Designed by architect Joaquín Toesca, a disciple of Francesco Sabatini, a professional of the court of Carlos III, King of Spain (1759-1788), the Palace is the main example of Neoclassicism in Chile. It was inaugurated in 1805 as the Royal Mint of Santiago, to mint the kingdom's currency. After the independence of Chile, in 1845, the Seat of Government and Presidential Residence moved to the building. It is on this date that it adopts its representative function, and therefore, the moment where the first important modification of its floorplan took place, beginning a process of continuous evolution characterized by the dynamic transformation and permanent adaptation of its architecture, through successive interventions, functional updates, and its reconstruction after the 1973 air raid. The lack of an organized and detailed record of its permanent alterations makes it difficult to understand them from their current state and for possible future interventions. As a result, this article presents the most important and significant changes on the perception of the building, thus becoming the first organized record of contemporary interventions of La Moneda Palace.

Keywords: Joaquín Toesca, restoration, reconstruction, contemporary interventions, organized record.

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INTRODUCTION

The *Palacio de La Moneda,* or La Moneda Palace, has seen a series of interventions throughout its history, that have enabled its utilitarian survival. However, these have diminished the capacity of its interpretation, as the intermitting activities do not allow assessing their contribution or detriment to the architectural/ constructive value, understanding them qualitatively from the scope of the theoretical and the practical, or as events linked to one another.

Therefore, the following question arises as an articulating question behind this research: what has the transformation process of Palacio de La Moneda been like, and how have permanent adaptations contributed functionally, architecturally, and constructively to its characterization and the value it represents?

In that sense, the hypothesis for this work states that contemporary interventions made to *Palacio de La Moneda* have affected the perception of architectural unity and heritage value, seeking to answer that question from the academic field through bibliographic sources, both those in the public domain and records of the MOP's (Public Works Ministry) Architecture Directorate.

It is important to bear in mind that some of the interventions made were not recorded or documented at the time of their execution, so there is no written trace of them, or detail of the works carried out. Here, the study made by Pirotte (1973) stands out. This records the most important works implemented at *Palacio de La Moneda*, prior to the restoration of 1973, which allows generating a framework. In this context, and considering that there is no cadaster since that date, the update made by this study is meritorious, aimed at completing the panorama of interventions, even though this building is constantly being updated, as can be seen in Figure 1.

It should be mentioned that target images or photographs of the end results of the most relevant interventions of *Palacio de La Moneda* are presented here, but not its planimetry, due to the confidential nature of this material, on this being the current home to the national government, entailing security issues. Under this parameter, only the historical planimetry authorized for disclosure has been included.

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Date	Type of work	Detail of the Works	Cause	Author	Criterion
1848	Modification	Fitting out part of the Palace for the President of Chile's house	Change of role for a sector	Presidency: Manuel Bulnes	
1909	Conservation	Drainage works for the entire building	Improved infrastructure performance	Approval: Ramón Zañartu Presidency: Pedro Montt	
1929	Restoration	Inauguration construction overlooking Alameda. Moving the Minting Workshops. The entire building is assigned to Ministries (Interior, Foreign Affairs, Government, in addition to the Presidential House)	Need for extension	Smith Solar Miller Presidency: Carlos Ibáñez del Campo	To continue with the neoclassical style, but enriching the elements Original plans sought
1934	Modification and Conservation	Expansion of the President's offices. Heating in presidential dispatch. Extension of central heating Small-scale repairs. Completion of electrical fittings, doorbells, and telephones Installation of central heating for Presidential House Extraordinary works to extend President's offices	Need to improve infrastructure and extend offices	Engineering: Marcelo Guers, R. Antoine and José Agustín Pardo. Cesar Parada Presidency: Arturo Alessandri Palma	
1935	Modification	Large dining room with fireplace New Balconies New staircase to the courtyard of honor Preparation of banquet dining room doors Completion of electrical installation in the Presidential House	Need to extend and improve infrastructure	Juan Maíz Siemens Schuckert Presidency: Arturo Alessandri Palma	It is made according to the prevailing taste at the time

Date	Type of work	Detail of the Works	Cause	Author	Criterion
1936	Modification and Conservation	Sewers. Transformation of the central body Repair of Foreign Affairs vaulted ceiling Complementary sewerage in Palace's service bedrooms	Better infrastructure operation and growth of offices	Arturo Díaz Presidency: Arturo Alessandri Palma	
1938	Modification	Transformation of Trade Secretariat	Need to expand offices	Arturo Diaz. Presidency: Arturo Alessandri Palma	
1940	Modification	Banquet hall, furniture	Need for extension	Raúl Sierralta Presidency: Pedro Aguirre Cerda	The neoclassical style is followed
1945	Modification	Transformation of the second floor	Need to extend offices	A. Mancilla, Mateo Siull and Cia. Thermic Ltda Presidency: Juan Antonio Ríos	
1947	Modification	Offices and storage rooms project	Need for extension	Eugenio Morales. Presidency: Gabriel González Videla	

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1960	Modification	Habilitation of old storerooms in the Orange Grove Courtyard sector (Lanterns, balconies)	Need for new offices. Growth	Iris Valenzuela Presidency: José Alessandri Rodríguez	Continuation of existing style. The facade symmetrical to the others.
1967	Conservation	Heating and electricity. Repairs in kitchen, winter garden, media offices, toilets and medical service	Functional	S. Varieta, Pablo Vicuña, architect Presidency: Eduardo Frei Montalva	
1968	Conservation	Basement for generators and miscellaneous repairs General electrical installation works and winter garden	Functional	Forteza Hnos Presidency: Eduardo Frei Montalva	
1970	Conservation	Several electricity works	Functional	Forteza Hnos Presidency: Eduardo Frei Montalva	
1971	Conservation	Supply of 44 metal lockers. Supply and installation of boiler Repair of kitchen toilet. Repair and maintenance in Palace Quartermaster, Brigadier offices, upholstery workshop, and electricity dept. Print, Palace guard house. Toilet and maintenance works, secretary, medical service	Functional	Famomet Ltda. Alfonso Wolf MOPT. Irrarázaval y Cía. Ltda. Luis Orellana Garay Presidency: Salvador Allende	
1980	Modification and Conservation	Reconstruction after the bombing Underground construction	Functional	R. Marqués de La Plata. H. Rodriguez Presidency: Military Government	Recovery of the Toescano building image
2000	Conservation	Restoration of northern facades,	Need to improve infrastructure	Presidency: Eduardo Frei	Recover Toescan image
2003	Modification	Reopening of Morandé 80 Door	Functional	Presidency: Ricardo Lagos	
2019	Conservation	Extraction and removal of air conditioning equipment. Replacement of wooden doors and windows. Repair of wooden doors Removal of false ceiling. Replacement of cornices and ceiling ornaments Removal of Partitions. Removal of lights Painting of walls, ceilings and stair well Replacement of hardwood flooring. Replacement of stone cornices, pilasters, and ornaments Elevator maintenance	Functional	Presidency: Sebastián Piñera	

Figure1 Interventions of *Palacio de La Moneda* until 2019. Source: Prepared by the authors, based on Pirotte's analysis (1973).

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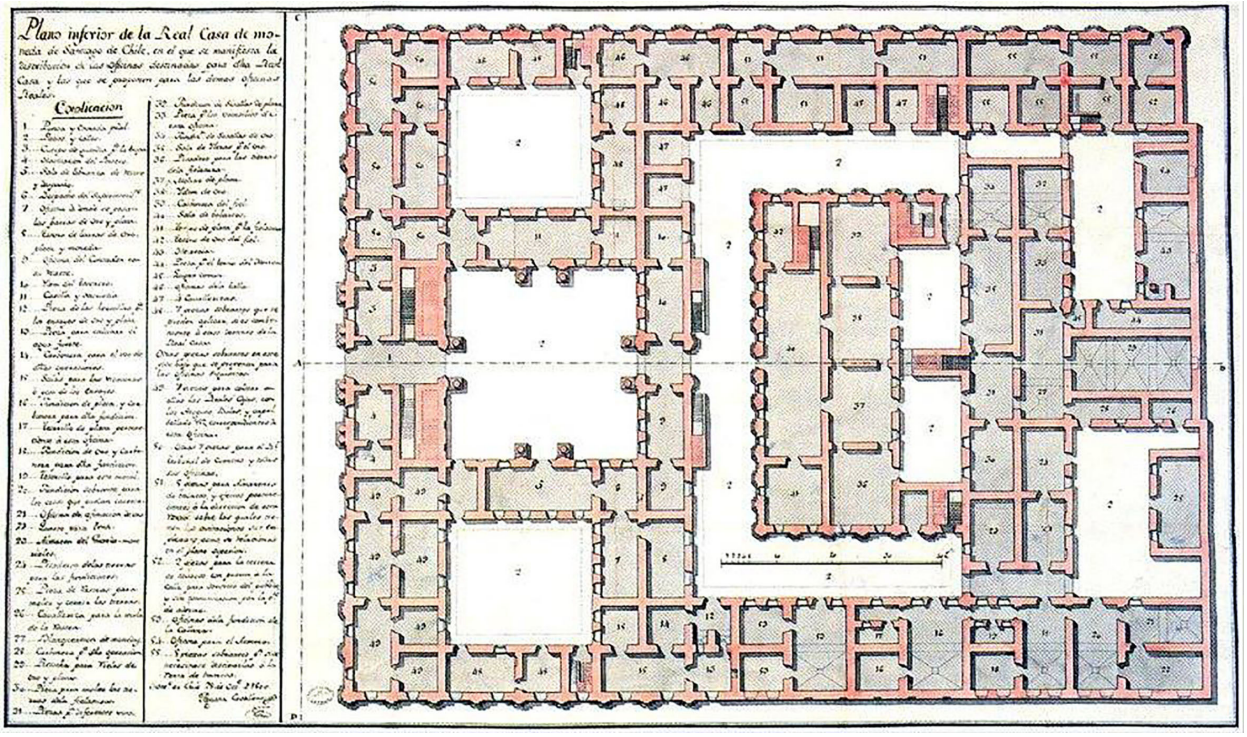

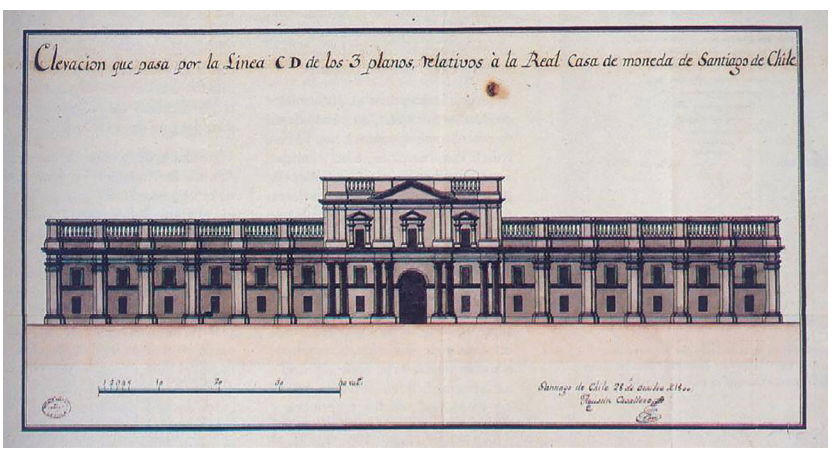

Figure 2 First level floor, by Agustín Caballero (1805). Source: (Guarda, 1997, p. 186).

Figure 3 North facade, by Agustín Caballero (1805). Source: Guarda (1997, p. 189).

RESULTS

It can be said that the first modification to the original project took place before its inauguration, because with the death of Joaquín Toesca in 1799, other professionals took over, leaving aside ornamentation details that never came to fruition. It is relevant to indicate that the first professional dedicated to this project was Agustín Caballero, who was in charge of making the earliest existing plans of the Mint, in 1805, plans that are the main guide for its continuation (Greve, 1938). For the same reason, Figures 2 and 3 give an account of what can be considered the pristine state of the Palace.

Figure 4 corresponds to the ideal reconstruction of the Toesca project, with the ornamentations that were not placed since the proposal coincided with the independence period and the Republican

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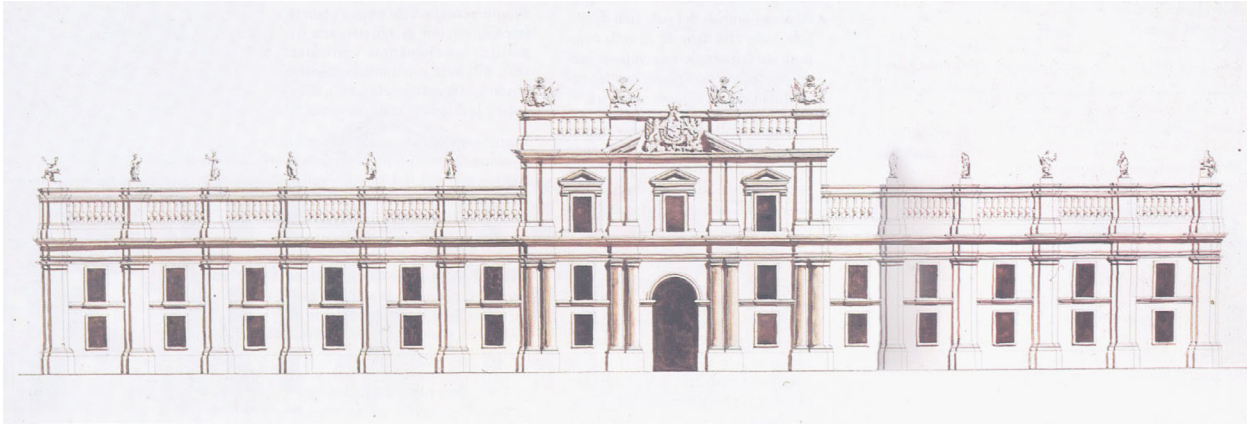

Figure 4 Ideal reconstruction of the facade integrating the crest of Andia and Varela, and the insignia and shields removed in 1822.
Source: Guarda (1997, pp. 202-203).

Figure 5 Perspective of Palacio de La Moneda, 1821.
Source: Memoria Chilena (2018).
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government decided to eliminate the crests and heraldic shields of the colonial administration.

The Royal Mint was inaugurated in 1805, although the building was not finished and work continued for a couple of months.

Figure 5 represents one of the oldest graphic records of *Palacio de La Moneda*, where one can see what it would have been like upon its inauguration and how the main portico could have been brown, different from the classic white. It is important to mention that this image corresponds to an interpretation since it has differences in proportions with respect to reality (Castro, 2006).

The first significant restoration occurred a few years after its inauguration, in 1822, the result of a major earthquake that hit the central area of the country;

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Figure 6 Mint after removing the finials, the central body's parapet, and replacing the balusters with hard boards, by Lehnert (1854).
Source: Guarda (1997, p. 203).

a telluric movement that severely affected the upper level of the building. Some of the frames and upper ornaments of the main facade fell, leading to the decision to remove the remaining elements to relieve weight and avoid future accidents, while the entire parapet structure was replaced with a wooden balustrade (Guarda, 1997).

Figure 6 outlines how *Palacio de La Moneda* evolved after the aforementioned restoration, by showing the wooden boards implemented at the top. This is the only graphic record of the building at the time, though it should be noted that does not have the correct morphology of the Palace, since it makes changes to its height and the perspective of the roof, possibly because the author was positioned at a different height when he made it (Castro, 2006).

It is in 1845 when the most significant event in the history of the building takes place, since President Manuel Bulnes decrees the transfer of the Presidency offices, government offices, and the residence of the Presidents, from the building located in Plaza de Armas, to the Mint, whose occupation was much lower than its total capacity (Alegría, Campos, Rodríguez, & Sacaan, 1983).

In this new occupation, it was considered that the eastern sector, corresponding to the superintendent's house, was in the best condition. Hence, this was defined as the ideal area for the President's residence. The western area, previously destined for the rooms of the institution's treasurer and accountant, became the Ministerial offices of the time. Hence, the Palace was divided into three zones: the presidential residence, the seat of government, and the mint (Alegría *et al.*, 1983).

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Figure 7 Timeline of relevant contemporary interventions of *Palacio de La Moneda*.
Source: Prepared by the authors.

A new earthquake struck the capital in 1850, damaging the building. The new restoration works were commissioned to the engineer Andrés Gorbea and the architect Claudio Brunet des Baines. Five years later, a fire affected the presidential residence, destroying several rooms located on the Morandé Street side (Alegría *et al*., 1983).

In 1858, the whitewashing of its walls was removed and replaced by stucco plaster, oil-painted on the facades of Morandé, Moneda, and Teatinos streets (Alegría *et al*., 1983).

It would be President José Manuel Balmaceda who returned to reside at *Palacio de la Moneda,* extending its main enclosures and redecorating following the aesthetic trends of the time (Alegría *et al*., 1983).

President Carlos Ibáñez del Campo led the largest restoration of the *Palacio de la Moneda*. In 1929, he entrusted Josué Smith Solar and José Tomas Smith Miller to project the façade towards Alameda Bernardo O'Higgins Ave., a proposal that can be seen in Figure 7 and 8, and to complete renovation work inside the building to accommodate more government activities (Alegría *et al*., 1983).

The architects proceeded to repeat the facades of Morandé, Teatinos, and Moneda, preserving the aesthetics outlined by Toesca (Alegría *et al*., 1983) and, to increase capacity in the new southern body, they projected a new body with three floors, unlike the original two-level volume, subdividing it into 17 sections for greater interior fragmentation, in contrast to the 15 sections considered by the Italian (Department

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Figure 8 South facade project of Smith Solar & Smith Miller, by Josué Smith Solar (1929). Source: MOP Architecture Directorate Photographic Archive.

of Cultural Heritage, 2015). Meanwhile, the stucco of the walls was made with cement and sand from the Marga Marga river (Alegría *et al*., 1983).

The new southern facade was designed specifically to house the Ministry of Education and the Ministry of Foreign Affairs, but only the latter moved to the new area (Department of Cultural Heritage, 2015).

The restoration made by the Smiths was a comprehensive plan, with works carried out in several areas of the Palace, such as the extension of the presidential offices and the ornamentation of the presidential dispatch (Pérez de Arce cit. in Department of Cultural Heritage, 2015).

Subsequently, President Arturo Alessandri ordered work to be done to the interior, such as the creation of a reception dining room, by joining rooms alongside the red hall. The urban plan referenced by Karl Brunner's project was also developed (Gueneau de Mussy & López, 2012).

In 1932, the Ministry of War and the Dragoon Barracks, both facing the *La Moneda Palace*, were demolished, to place *Plaza de la Constitución*, a new esplanade that framed the grandeur of the seat of government, in the block to the north. Next to it, and following Brunner's instructions, adjoining buildings were built, which gave shape to the Civic Center, assigned to administrative or political roles. These works took place during subsequent governments and were completed in 1950 (Gueneau de Mussy & López, 2012).

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Figure 9 Minting and Scaling Pavilion. Anonymous (1900). Source: Alegría *et al.* (1983, p. 58).

During the mandate of President Juan Antonio Ríos, in 1940, the Minting and Balance pavilion was demolished (Figure 9) to make room for a new sector, the *Patio de Los Naranjos* (Orange Grove Courtyard) (Figure 10), which, obviously, received its name from those fruit trees. Two fragments of the building remained, which were used to support two water fountains (Alegría *et al.*, 1983).

During the subsequent presidential periods, minor modifications were made, all of them designed for roles typical of the time, but disregarding

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Figure 10 Photo of *Patio de los Naranjos*, by Michael Mauney (1971). Source: Enterreno Chile (2016).

Toesca's design and structure proposal. The latter included restoring private rooms, commissioned by President Gabriel González Videla, and replacing the wooden staircase of the Morandé entrance with a stone one, ordered by President Eduardo Frei Montalva. This situation is mentioned as these modifications irreversibly damaged the structure that supported *Palacio de La Moneda*, which ended up collapsing during the bombing and fire of 1973, leaving serious structural damage: the fall of the stucco exposed deteriorated walls, a scene accompanied by the burning of the oak beams that supported the floors and roof (Alegría *et al*., 1983).

September 11th, 1973, saw a coup d'état organized by the Armed Forces to overthrow the government of Salvador Allende, ending democracy in Chile, and starting a dictatorship that lasted 17 years. The *Palacio de la Moneda* was hit by a six-hour bombardment, seven air strikes, and 18 Hawker Hunters missiles, which caused a fire that collapsed the earthenware of the second floor and the roof. The damage suffered by the building was so serious that some architects pointed out that only the brick walls that had been glued with lime and sand remained standing, with the exception of the southern body, made of reinforced concrete slabs, which in the end, could not resist the fire (Valencia, 2018). (Figure 11, Figure 12 and Figure 13)

For the restoration, at the beginning of 1974, the Architecture Directorate of the Ministry of Public Works asked the College of Architects to propose a working commission whose main task was to evaluate the main decisions that should be taken. It was formed by Rodrigo Marqués de la Plata, Óscar Ortega, Montserrat Palmer, Jorge Swinburn, and Raúl Irarrázaval. The commission presented the general criteria, along with other alternatives to repair the second courtyard (Baeza, 1981).

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Figure 11 North façade of Palacio de La Moneda during the bombardment (1973). Source: MOP Architecture Directorate's Photograph Archive.

In short, Márquez de la Plata, together with Rodríguez, proposed that the pavilion that had existed in the courtyard until 1940 be rebuilt, allocating the area for the palace reception rooms, which was accepted by the Higher Commission. After this, the architects Márquez de la Plata, Rodríguez, and Swinburn were hired in 1974 to prepare the final project, which would be delivered in 1975. Later, the MOP architect, Orlando Torrealba, would join them. At the end of 1975, construction works were suspended due to the economic recession, before resuming in 1977, led by just Márquez de la Plata and Torrealba (Baeza, 1981).

The architects focused on recovering Toesca's original neoclassical project, in such a way that it was necessary to unify the intervened spaces to follow the layouts the Italian had designed for the palace (Olive, 2017). To do this, it was necessary to ask the Spanish government of General Franco to provide the only existing plans of when the Mint was built, the aforementioned work of Agustín Caballero, which were in the archives of Indias, in Spain (Marquez & Rozas-Krause, 2014).

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Figure 12 Overhead view of Palacio de la Moneda after the bombing, by DA MOP (1973). Source: DARM MOP (2014).

Figure 13 Morandé 80 entrance during the bombing (1973). Source: MOP Architecture Directorate's Photograph Archive.

The idea was to restore the main corridors of the halls, the symmetry of openings, the large dimensions, and the sober decoration, with the purpose of evoking the palatial quality typical of the construction period (Alegría *et al.*, 1983).

Among the changes made to *La Moneda Palace* is the installation of H-shaped concrete slabs, on each of the four corners damaged by the fire of 1973, which, like diaphragms, gave rigidity to the building (Valencia, 2018). On the third floor, the concrete balusters, lost in the bombing, were reconstructed (Oliva, 2017), and a new room was inaugurated, the Montt Varas Hall (Valencia, 2018).

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This reconstruction contemplated some demands from the Military Junta, including the closure of Independence Hall (where President Salvador Allende took his own life) and the Morandé 80 entrance, through which his corpse was seen leaving (Marquez & Rozas-Krause, 2014), as well as moving the fountain from the main courtyard to the Orange Grove Courtyard, to clear the entrance to the building (Oliva, 2017).

At an urban level, the *Plaza de la Constitución* (until then an esplanade for parking) was intervened, planting green areas and gardens, and building an underground parking lot and offices for Palace staff (Gueneau de Mussy & López, 2012).

The building was reopened on March 11th, 1981, the same day that Augusto Pinochet began his presidency after the Military Government's 1980 constitution. With Pinochet changing from being a military chief to a "civilian ruler", he moved from the Diego Portales Building to the *La Moneda Palace* (Marquez & Rozas-Krause, 2014).

At the end of the 1990s, the "Whitewashing the memory" project was formulated, which involved restoring the frontispiece of *Plaza de la Constitución* and the four facades of *Palacio de La Moneda* (Binda & Miniño, 1999).

In 1999, a preliminary report was prepared by the firm Binda & Miniño, on the state of conservation of the facades, which established that the deterioration was due to their coatings, which showed spots, stains, and peeling on the outside. These damages were not structural or derived from a failure of such nature (Binda & Miniño, 1999).

The project was divided into sections and phases, mainly due to the rush to improve the image of the seat of government before the change of command, prioritizing the execution of the north facade, to then continue with the remaining three facades. It was established that, once the works were completed, a third stage would be carried out, for the interior facades.

Under the government of President Ricardo Lagos, the Morandé 80 entrance was reopened on September 11th, 2003, in commemoration of the 30th anniversary of the military coup. This initiative was proposed by the same government, alluding to the collective memory that its existence in that location entailed (Peña, 2013).

The project considered restoring the north-south passage through the courtyards, opening the Morandé 80 entrance, restoring Independence Hall, and removing the Altar of the Homeland and the Flame of Eternal Freedom, installed at the front of *Palacio de La Moneda* during the dictatorship (Peña, 2013).

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Figure 14 View of the Morandé 80 entrance (2003). Source: Architecture Directorate's Photograph Archive.

Regarding the Morandé 80 entrance as such, it was restored to its original location, removing the window that had occupied its place since the 70s; hence, the new access does not exceed the width of the windows present on the facade in question (Figure 14). In the interior space that directly faces the door of Morandé 80, there is a commemorative plaque and a restricted guest book (Peña, 2013).

This set of interventions in *Palacio de la Moneda* and its immediate context sought to reflect, on a physical level, the closure of a political cycle, overcoming the transition between the military government and the Republic (Peña, 2013).

On February 27th, 2010, one of the largest earthquakes recorded in Santiago took place, 8.8 on the Richter scale, causing a series of structural damages to the Palace, mainly on the third floor, the cornice of the main access, and in the south wing. All these damages, including those affecting the cladding, where fissures, cracks, and material falls were found, were repaired by the Ministry of Public Works (MOP) in 2011, in restoration works on walls, pillars, and slabs (Presidency of the Republic, 2015).

These works showed the clear deterioration of the building, both in spatial and material areas, due to a large number of isolated interventions, especially in the south wing. For the same reason, the MOP Architecture Directorate focused the conservation work, during the 2012 – 2019 period, on this part of the building. (Figure 15 and Figure 16)

The conservation works sought to free the area in question from poor workmanship and smaller-scale components added later, which altered the attributes and value of the monument. The intervened area included the offices of the Ministry of the Interior, the Undersecretariat of Regional and Administrative Development, and the General

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Figure 15 Conservation works South Wing (2016 – 2018). Source: DARM MOP (2016).

Figure 16 Cleaning of interior doors' stone frames. Source: DARM MOP (2016).

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Figure 17 Proposed connection between the Presidential Cabinet and the south wing. Source: Presidency of the Republic (2017).

Secretariat of the Presidency, which were moved to the *Moneda Bicentenario* building (DARM MOP, 2016).

This process included the extraction and removal of air-conditioning equipment, replacement of wooden doors and windows, removal of ceilings, partitions, and fixtures, repair of wooden doors, replacement of hardwood flooring, painting of walls, ceilings, and stairs wells, replacement of stone cornices, pilasters, and ornaments, and the maintenance of the two elevators located in the presidential kitchen and in the socio-cultural and presidential cabinet galleys (DARM MOP, 2016).

The last phase recovered connectivity between the Presidential Cabinet and the south wing of the Palace, by opening a passage between the south and west wings of the building. These works sought to provide more and better conditioned spaces to hold meetings in the government house, optimizing its functions and the movements inside, and improving the spatial quality of the premises used by the current president, his Presidential Cabinet, and Ministers (Department of Cultural Heritage, 2017). (Figure 17)

Considering the number of interventions referred to here, and those that have no written record, the need arose to generate a comprehensive development plan for the future intervention of *Palacio de La Moneda* and the protection of the building under changes of government. That is why the Heritage Plan of the Presidency of the Republic of Chile was generated and, currently, the Master Plan for the Integrated Restoration of Palacio de La Moneda is under development.

The Heritage Plan of the Presidency of the Republic of Chile appears as a first attempt to provide a coordinated work model from and with institutions, organizing them considering their areas

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of expertise, resources, and technical experience to outline the work under a multisectoral and collaborative view, incorporating the historical practices of those involved. In this way, a plan capable of valuing, safeguarding, conserving, and disseminating the cultural heritage of the Presidency of the Republic is articulated, which will remain in place in the long term, even if administrative changes are made to said governmental entity (Presidency of the Republic, 2015).

The "Palacio de La Moneda Integrated Restoration" master plan, developed by the MOP Architecture Directorate, is in its elaboration phase. It comprises a reference framework regarding the thematic reflection proposed for this study and is subject to critical analysis as a basis for a project exercise.

Its analysis and justification emerge as an initiative of the Architecture Directorate, which has historically been the Technical and Advisory Unit of the Palace, in conjunction with the Presidency of the Republic as the user. Through the work done, it has been possible to identify that the many infrastructure-based and facility initiatives carried out have not resulted in an integrated or coordinated response, but rather in partial and isolated interventions.

CONCLUSION

It is important to say that the goal of this study has not sought to be conclusive in critically assessing the relevance of interventions made in each of the historical periods, but instead has sought to produce an organized record of all those considered relevant in the morphological evolution and characterization of the building, providing an account of a state-of-the-art and giving a comprehensive understanding to conceive pre-existing actions from a dynamic context. Hence, it is open to building the foundations for interventions in the near future, as mentioned, considering the entire development Master Plan.

It is of primordial importance to incorporate, for future interventions, studies from a systemic perspective and, in this sense, to consider the following guidelines:

1. Connect the historical interventions with an analysis of the constructive systems that have been added from their original quality, and define the extent to which these two components are related, especially in larger interventions.

2. Consider, in the same way, those intermediate interventions that, on having considered functional requirements of a more domestic nature, have been vulnerable to a less responsible exercise in criteria for an adequate restorative project.

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3. The urban space of context is of primary importance in the evolution of the patrimonial ensemble; this has been touched on from the cadastral-object point of view. Even when the socio-political aspects have been surveyed, by themselves they do not constitute a complete semiological study that allows an in-depth interpretation, in this case, of the obligatory mutual relationship between both scales of container and content, building and urban environment.

The study presented here seeks that the answer to this aforementioned process derives from integrating all the concepts and elements involved in the heritage action, which implies first making an analysis of the values and ending with suitable conservation, providing society with the progress that has been achieved and preparing the ground for self-sustainable protection. In this framework, the fruits of contemporaneity can be appreciated as heritage along with those already assimilated (Peral, 1999).

With the theoretical component already proposed, a management body that can complete this work, and the competition of selected interdisciplinary teams established, it is clear that architecture is part of the heritage value of a property, the result of contemporaneity, but inexplicable without the rest of the modern disciplines. The element that can enhance each value in the whole under a patrimonial consideration will be the Heritage Project.

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State materiality at the margins of the State. The institutional architectures of the 20th century. The evolution of an Atacamanian Plateau school (Jujuy, Argentina)

MATERIALIDADES ESTATALES EN LOS MÁRGENES DEL ESTADO. LAS ARQUITECTURAS INSTITUCIONALES DEL SIGLO XX, DESDE EL DEVENIR DE UNA ESCUELA PUNEÑA (JUJUY, ARGENTINA)

MATERIALIDADES DO ESTADO NAS MARGENS DO ESTADO. AS ARQUITETURAS INSTITUCIONAIS DO SÉCULO XX, A PARTIR DA HISTÓRIA DE UMA ESCOLA NA PUNA (JUJUY, ARGENTINA)

Figure 0 Aerial view of the current school. Source: Photographs by the author.

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RESUMEN

En general, el estudio de la arquitectura del estado se ha enfocado al análisis de las producciones que tuvieron lugar en los centros de poder desde los que se despliegan los aparatos estatales. En este contexto, el rol de la arquitectura se constituye desde la centralidad, lo que contribuye al argumento de la conformación de una imagen reconocible y reproducible del aparato estatal. Pero ¿qué ocurre en aquellos sitios que lejos de formar parte de la centralidad de la construcción estatal se encuentran en sus márgenes, constituyéndose incluso como espacios desconocidos para el propio Estado? El objetivo de la investigación que aquí se expone es analizar la producción de arquitecturas del Estado en la Puna de Atacama, Argentina, a partir de un estudio etnográfico e histórico que permite analizar la trayectoria de este espacio como parte de una construcción nacional desde comienzos del siglo XX. Metodológicamente, se comprende la producción arquitectónica del Estado no sólo desde el Estado, sino desde las perspectivas locales, reconociendo el complejo de agencias que intervienen en la arquitectura a través del tiempo. Este trabajo se lleva a cabo a través de un estudio de caso, el de una escuela puneña ubicada en la localidad de Coranzulí, en la actual provincia de Jujuy, que a partir de un trabajo etnográfico y de archivo permite observar esta problemática, en dos ejes analíticos. El primero de ellos aborda los modos de producción de las arquitecturas como procesos en el tiempo, en los que interviene una red compleja de actores. El segundo se refiere, específicamente, a las características materiales de estas arquitecturas y a la forma en que allí se expresan sentidos que operan sobre la aparente uniformidad del Estado. Finalmente, se problematiza la propia noción de hegemonía como construcción inacabada y en la cual el rol de los actores locales tiene un rol fundamental.

Palabras clave: arquitecturas del estado, Puna de Atacama, hegemonía, prácticas locales.

ABSTRACT

In general, the study of state architecture has focused on the analysis of the construction that took place in the centers of power, through which state structures are deployed. In this context, the role of architecture comes from centrality, which contributes to the argument of the conformation of a recognizable and reproducible image of the state apparatus. But what happens in those places that, far from being part of the centrality of the state construction, are found in its margins, even constituting spaces unknown to the state itself? The purpose of this paper is to analyze the construction of state architectures in the Puna de Atacama (Atacamanian Plateau), Argentina, through an ethnographic and historical study that allows analyzing the evolution of this space as part of national construction since the early 20th century. Methodologically, this will aim at understanding the architectural production of the state not only from the state itself but from local perspectives, recognizing the set of agencies involved in architecture over time. This work is carried out using, as a case study, a school in the town of Coranzulí, in the current province of Jujuy, which from an ethnographic and archival work allows observing this issue, along two analytical lines. The first has to do with the ways of production of architecture as processes where, over time, a complex network of players is involved. The second refers, specifically, to the material characteristics of this architecture, and the way the senses that operate on the apparent uniformity of the state are expressed there. This work, then, allows finally problematizing the very notion of hegemony as an unfinished construction, where the role of local players is fundamental.

Keywords: state architecture, Puna de Atacama, hegemony, local perspectives

RESUMO

Em geral, o estudo da arquitetura do Estado centrou-se na análise das produções que tiveram lugar nos centros de poder a partir dos quais os dispositivos do Estado são implantados. Neste contexto, o papel da arquitetura é constituído a partir da centralidade, o que contribui para o argumento da conformação de uma imagem reconhecível e reprodutível do dispositivo estatal. Mas o que acontece naqueles lugares que, longe de fazerem parte da centralidade da construção estatal, se encontram em suas margens, constituindo até mesmo espaços desconhecidos para o próprio Estado? O objetivo deste trabalho é analisar a produção de arquiteturas estatais na Puna de Atacama, Argentina, com base num estudo etnográfico e histórico que nos permite analisar a trajetória deste espaço como parte de uma construção nacional desde o início do século XX. Metodologicamente, compreenderemos a produção arquitetônica do Estado não só a partir do Estado, mas também de perspectivas locais, reconhecendo o complexo de agências que intervêm na arquitetura ao longo do tempo. Este trabalho é realizado mediante um estudo de caso, o de uma escola situada na localidade de Coranzulí, no que hoje é a província de Jujuy, a qual, a partir de um trabalho etnográfico e arquivístico, nos permite analisar a problemática sobre dois eixos analíticonos quais uma rede complexa de atores intervém. O segundo refere-se especificamente às características materiais destas arquiteturas, e à forma como nelas se expressam sentidos que operam sobre a aparente uniformidade do estado. Finalmente, a própria noção de hegemonia é problematizada como uma construção inacabada na qual o papel dos atores locais é fundamental.

Palabras-chave: arquiteturas do estado, Puna de Atacama, hegemonia, perspectivas locais.

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INTRODUCTION

The study of state[1] architecture has become a thematic field that allows shedding light on how different political models instrumentalized, operated and even produced architectures associated with the construction of national identities. Mainly, these studies focused on the architecture of the centers of power where the state apparatuses are deployed, among which one can mention the analysis of the productions of fascist Italy, developed by Gentile (2007) or, a closer example, the work of Ortiz (1968) on the architecture of liberalism in Argentina. From these perspectives, the construction of hegemony and the role of architecture in these processes are made from centrality, which contributes to the argument on the formation of a recognizable and reproducible image of the state apparatus. In the context of the formation of the Argentine state, the liberal elites of the so-called Generation of the '80s erected the pillars of "order and progress" as core concepts of the country's institutional construction. In this framework, and as was raised by Oszlak (2012), while the notion of order is meant to regulate and normalize the functioning of society, its association with the idea of progress meant that, to achieve this adjustment, "the order appeared, paradoxically, as a drastic modification of the usual framework of social relations" (2012, p 28), and one could add, a spatial one. But what happened in those places that, far from being part of the centrality of state construction, were on its margins, even being unknown spaces? And whose dynamics and relationships were also unknown?

The state background of the Puna de Atacama was unique compared to other parts of the current Argentine territory, so much so that, since the late 19th century and the first decades of the 20th, it was successively part of Bolivia (1825-1884), Chile (1884-1899) and, finally, since 1899, of Argentina, the latest incorporation (Benedetti, 2005). Evidently, this successive change implied that the actions that the different states deployed in the area were dispersed and discontinuous until the annexation to Argentina triggered a more or less systematic process of incorporation into state structures, and a search for the recognition of this space and its populations as part of a national whole (Barada, 2017).

In administrative terms, in fact, until 1943, Puna de Atacama was part of the political-administrative unit that was called the National Territory of the Andes and that depended directly on the National State. Its dissolution, almost halfway through the 20th century, also implied the dismantling of its geographical unity, since the departments that the territory comprised from south to north (Antofagasta, Pastos Grandes, San Antonio de los Cobres, and Susques) were distributed, respectively, in the current provinces of Catamarca, Salta, and Jujuy. That is to say, the border nature of the area extended not only to the period of transfer through different

1 The formal decision to refer here to the "state" with lowercase letters is part of a theoretical-political positioning that seeks to demystify the presence of the state as a compact and closed entity (Abrams, 1988). In fact, as the author has stated, having to make this clarification shows how far the power of the "myth of the state" has reached.

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national state administrations but also constituted a liminal area in internal terms. Even beyond administrative issues, it is possible to observe this liminality in the testimonies given by those first travelers who, in the framework of academic and official missions, traveled to this space from the end of the 19th century to the first decades of the 20th. The views built regarding its space were closely tied to the idea of the unknown, of the deeply strange, to the point that, then, it became very difficult to "make them one's own".

> The impression that the Puna makes on the traveler is so strange that they would not believe it to be real. One feels far from Earth; it almost seems that one is crossing a lunar country, at the slow pace of the exhausted mule. The nakedness of this nature is horrifying: everything becomes gloomy and taciturn; one no longer laughs; one's chest is gripped by this barely breathable air (Boman, 1908 [1991], p. 414).

These testimonies were a key input for the state deployment in the area, which focused its actions on seeking a material order that would enable beginning to acknowledge its space as an at least identifiable and classifiable part. However, and just as Sanhueza Tohá (2001) suggested, far from converging on a lack of knowledge of statehood by local populations, these processes and the multiple border conditions of the area, led to the development of a certain switching capacity of the communities based on their interests and sustaining their structures. In this context, how were state institutions deployed in the area? And, what role did their architectures and spatialities occupy in the construction of national identity?

Given these questions, the purpose of this research is to analyze the spatial dimension of these processes in two key areas. On one hand, from a perspective that seeks to understand state architectural production not just from the state, but from local perspectives. Recognizing the group of agencies that intervene over time from the production modes of the works, implies problematizing the idea of state centrality and uniformity, which will allow understanding, in short, the very notion of "hegemony" as an unfinished process (Roseberry, 2007). On the other hand, using an analysis of architecture focused on the notion of materiality entails transcending its objectivity to give way to a relational understanding of it (Miller, 2005; Latour, 2008). As Miller himself has stated (2005), it is fundamental to understand that the materiality of objects resides in the social framework where they are inserted, in the relationships with others, the spaces, and the people. To this end, this work is based on a case study, that of a school of Puna located in the town of Coranzulí, in the current province of Jujuy. The ethnographic and archival work carried out there allows shedding light on the aforementioned problem (Figure 1). Thus, the building trajectory of this institution will be observed, from its creation to the present day, particularly considering the role it acquired in the urban development of the town.

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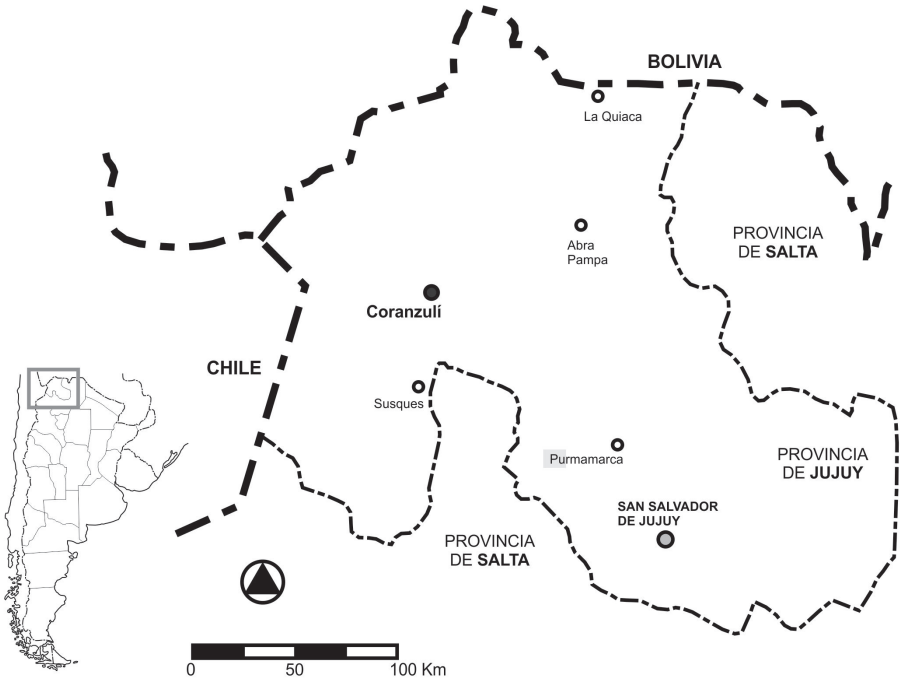

Figure 1. Location of Coranzulí in the current province of Jujuy, Argentina. Source: Preparation by the author.

The study of this case is part of broader research focused on the material dimension of relationships between the pastoral populations of Puna and the state, which resulted in a doctoral thesis (Barada, 2017). For this article, the choice of the school as a social and material construct comes not just from the relevance the educational institution has had for the deployment of the state apparatus, but also from the central role it had in the progressive, more non-linear transformation of the dynamic mobility of the indigenous pastoral populations who inhabited the area and, therefore, in the urban evolution of their peoples. Next, some clarifications will be developed around the study of the state and the methodological strategy adopted here, to then present the analysis of the case addressed where the implications of school architecture are understood, both on an urban and an architectural scale, in the framework of negotiations, tensions, and disputes that occurred between local populations and state agencies.

Some theoretical notes on the study of the state and the methodological construction of a view from the margins

Approaching the study of state architecture on the margins of its territory implies a necessary more complex understanding of the state itself. As proposed by Corrigan and Sayer (2007), conceiving the state as an abstract analytical concept that does not have an empirical entity implies recognizing the power relations it builds, and observing how these profoundly influence people's daily lives. These relationships are framed in a process of moral regulation, a standardizing project. In this line, entering into the study of the relationships between people and their spaces also requires recognizing the existence of multiple state agencies and agents, which run their structures from different places and interests. In the case of

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Puna de Atacama, since the beginning of the 20th century, a state apparatus can be noticed that, conceived with a strong homogenizing pretension, is run by a diverse set of officials, teachers, and travelers who rarely establish direct relations with the centrality. Faced with this scenario, this regulation becomes a forever unfinished process, where the experiences of people who give an account of other senses and projects must be understood. In coherence with these current approaches to the problem of the study of the state, it is necessary to revise the very notion of "hegemony" not as a monolithic construction, but as a "problematic, disputed, and political process of domination and struggle" (Roseberry, 2007, p. 123).

The theoretical approach to the problem of the state converges, then, in a methodological perspective that allows understanding the relationships between state agencies, and of these with the local actors, necessarily involving their ties with the spaces. Focusing the gaze on this multiplicity of relationships built by diverse agents entails, in this way, delving into a set of architectures that do not make up a homogeneous whole. It is within this framework that, then, the architectures of the state are mentioned, in the plural, as part of the very recognition of their multiplicity and heterogeneity.

This study was made from an ethnographic perspective that involved work both onsite and with documentary sources. This implies, on one hand, fieldwork with extended stays, between 2012 and 2017, holding unstructured interviews with different local actors (Guber, 2001), and the systematic registration and survey of the village's architecture. In terms of the archives, institutional sources were used, as well as family and community archives. The official documents of the General Archive of the Nation are connected with local documents, such as the "School History Book " of Coranzulí, a material that has testimonies and perceptions of the teachers and principals who were part of the institution between the 1930s and 1960s**2**. In these, the reading of sources also had an ethnographic character, since it sought to recognize the different voices found in the documents and, in the same way, identify their gaps, their omissions. Finally, graphic sources, in particular historical photographs, occupy a key role in the methodological strategy regarding their specific analysis, but also in their use *on-site*, considering the reconstruction of memories (Harper, 2002). Access to this type of source and the data constructed from fieldwork allows making the idea of centrality more complex and disputing it from the production of knowledge itself.

Analysis of the architecture of the school in the construction of the urban layout. And, an urban life?

ANALYSIS

The first specific testimonies related to the installation of state institutions and the "Argentinization" of this territory correspond to the writings and letters prepared by Gen. Daniel Cerri, the first Governor of the Andes Territory:

2 References to this book will be indicated with the month and year corresponding to the extracted fragment.

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> When, on our second expedition, we reached Coranzuli, all the Indians had taken refuge in the mountains and there was no way to bring them closer (...). The incorporation of these Indians into Argentine nationality will be difficult unless a school and a police commissioner with some men are set up in the hamlet of Susques, who will make them respect the government resolutions (...). (1903, p.55-56)

After the enrollment of the men for military service, the school was established as the first institutional presence in the villages of the Andes, based on a resolution of the National Council of Education[3] that since 1903 created establishments in San Antonio de los Cobres, Susques, Pastos Grandes and, in 1907, in Coranzulí. This early presence of the school, when the territory had been annexed to Argentina a few years earlier, and even though its population continued to have administrative and tax links with Bolivia (Delgado, 2008), allows us to understand the central role of this institution in the formation of citizenship of the liberal national project of the early 20th century. Indeed, the role of the school in the citizen construction by the national project and its relationship with the provinces positioned it at the heart of the disputes between centralism and the federal logic, within the sanctioning framework of the Láinez Law in 1905 (Lázzari and Rubio, 2005).

In this context, schooling in the Andes has not only generated social implications, but also urban ones. It is known that pastoral communities have a dispersed settlement logic, based on a cycle of annual movements associated with the needs of the farms and the building of certain territoriality. For the Andean area, this has been studied in several works, among which we can highlight those dedicated specifically to the study of the settlement systems elaborated by Göbel (2002) and Tomasi (2011) in the Susques area. The villages in the Atacamanian Plateau of the late 19th century were then configured as places visited by shepherds only at specific times of the year (Barada, 2017), linked to activities and celebrations around the chapels. At the same time, as part of the incorporation process into the national territory, these hamlets were established, for the state, in places where it was possible to erect its "civilizational" project by installing its main institutions and population control. This is mentioned in another passage from the writings of Cerri:

> Neither during the long period of Bolivian domination nor in more recent times, where the Puna de Atacama has been subject to the jurisdiction of Chile, is there an example, Minister, that the authorities of one country and the other have been concerned with uprooting the intelligence from the dark empire of ignorance. Meanwhile, throughout this region, now decreed as Federal Territory, in the population centers, as well as in the adjacent ravines, there are groups of families whose children, illiterate like their parents, offer the sad spectacle of human herds in the middle of the desert (1903, p. 55-56).

3 AGN, SH III, catalog number 161. Resolution of the National Council of Education. Buenos Aires, March 19th, 1907.

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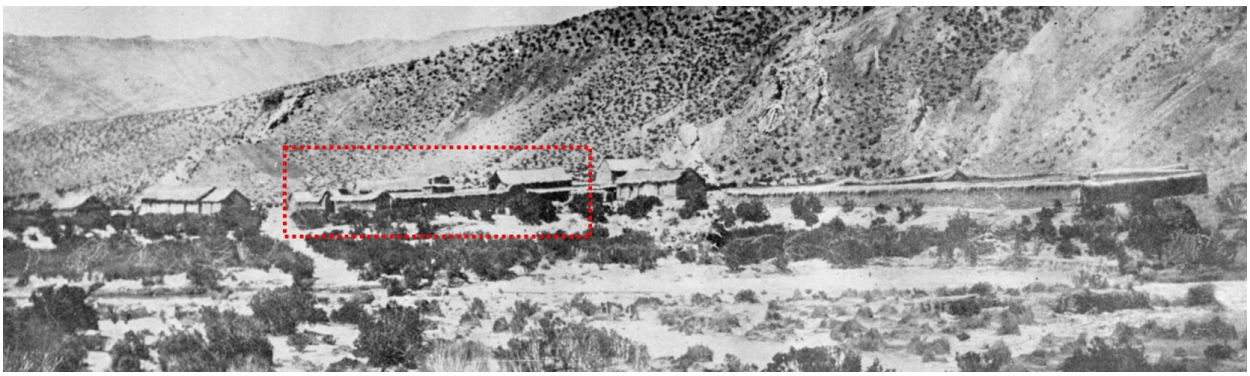

Figure 2. Coranzuli in 1900, with the church in the box. Source: Clipping of a photograph by Gen. Daniel Cerri, 1993 [1903], image 03).

As of 1907, the schooling of children and their school attendance was controlled by the police force, following the instructions sent from the recently created National Council of Education to the then Governor of the Territory[4]. Grade teachers recorded the difficulty of children's attendance in the School Book, and this constituted one of the main concerns until at least the middle of the 20th century. This is seen in the following extracts:

> According to the Deputy Police Commissioner, Mr. Gregorio Puca, it will be possible to have good attendance after the "Carnival", because all this time until the Monday of Temptation, they are busy with the signage and markings of the ranch. The few people attending class are the children of two families who happened to be in the village (...)". (Historical School Book of Coranzuli, February 1946)

> The teachers notice a lot of laziness in the children who finish their daily homework at school; the street and the countryside are explored by them even in the late afternoon, and it has been decided to repress this with the help of the police. (Historical School Book of Coranzuli, March 1963)

The practices associated with the countryside and the activities carried out by the children collaborating with their parents in certain tasks were frowned upon by the school agents and repressed directly by the police. The reading of these passages, produced well into the 20th century by teachers, allows understanding state actions further, from the knowledge of the specifics of local contexts. As can be seen, the installation of the school did not directly imply the attendance of children, who largely maintained a life in the countryside and who, consequently, did not settle permanently in the villages, in the sedentary focus intended by the deployment of state institutions and their tools for population control.

So, how effective was the state project? And, in any case, how can these local actions be understood within the framework of a set of maneuvering strategies deployed by the local population? Some answers to these questions arise from observing the role the school and its architecture had in the development of the urban fabric of the town through graphic sources. The first photograph of Coranzulí, taken by Cerri in 1903, allows

4 AGN, SH III, catalog number 66.

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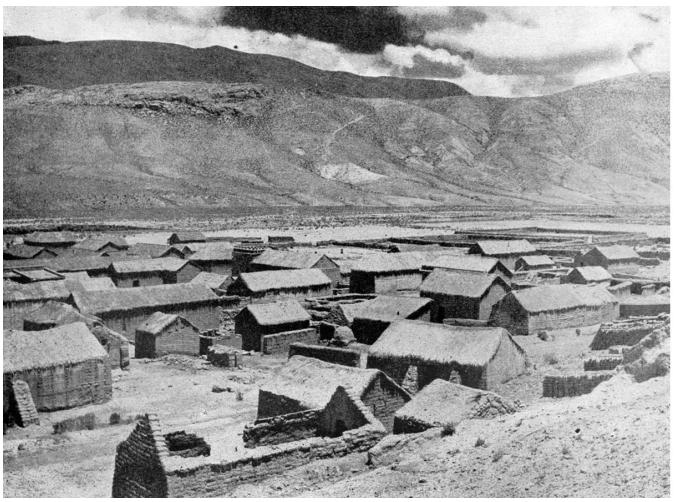

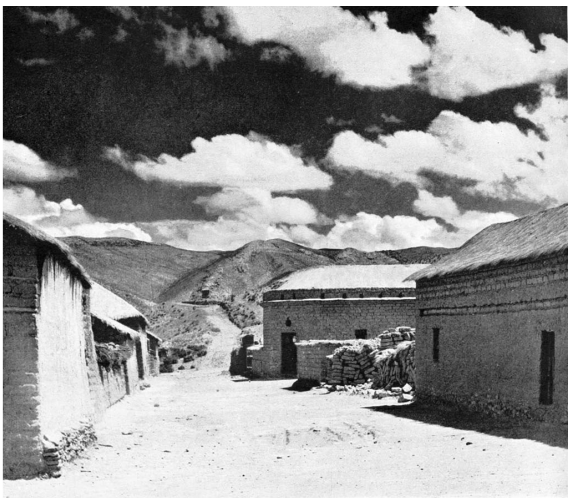

Figure 3. Coranzuli in 1942. Source: Photo by Hans Mann. National Academy of Fine Arts.

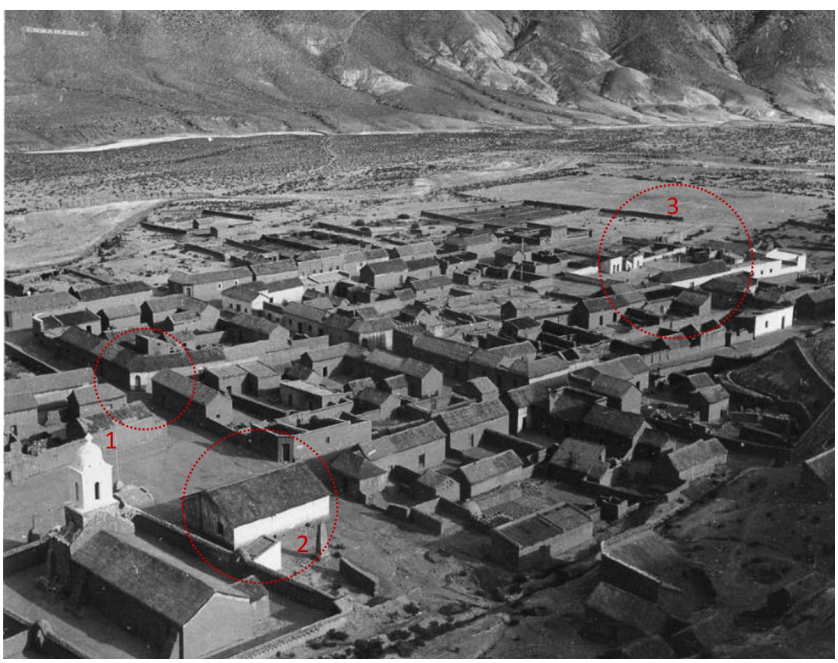

Figure 4. Coranzuli in 1970, indicating the buildings mentioned in the text. Source: Unpublished photograph by Federico Ortiz (Documentation Center of Latin American Architecture).

us to see the Church and a few houses, arranged around the atrium (Figure 2). The second, from the 1940s, shows a significant growth in the density of the constructions, consistent with organizing the layout orthogonally, with streets and an incipient lotted organization (Figure 3).

The significant change that occurs during the first half of the 20th century regarding the constructive density of the town and its shape, gives rise to considering the implications that state architecture and its institutionality have had on the development of an urban form, even when the population did not reside permanently in the town, as school records and testimonies prove. The following photograph, taken in the 1970s, shows not only an increase in urban growth but also an important change in the aesthetics of the architecture and its materials (Figure 4). Although this aspect will be delved into later, it should be noted here that, in this

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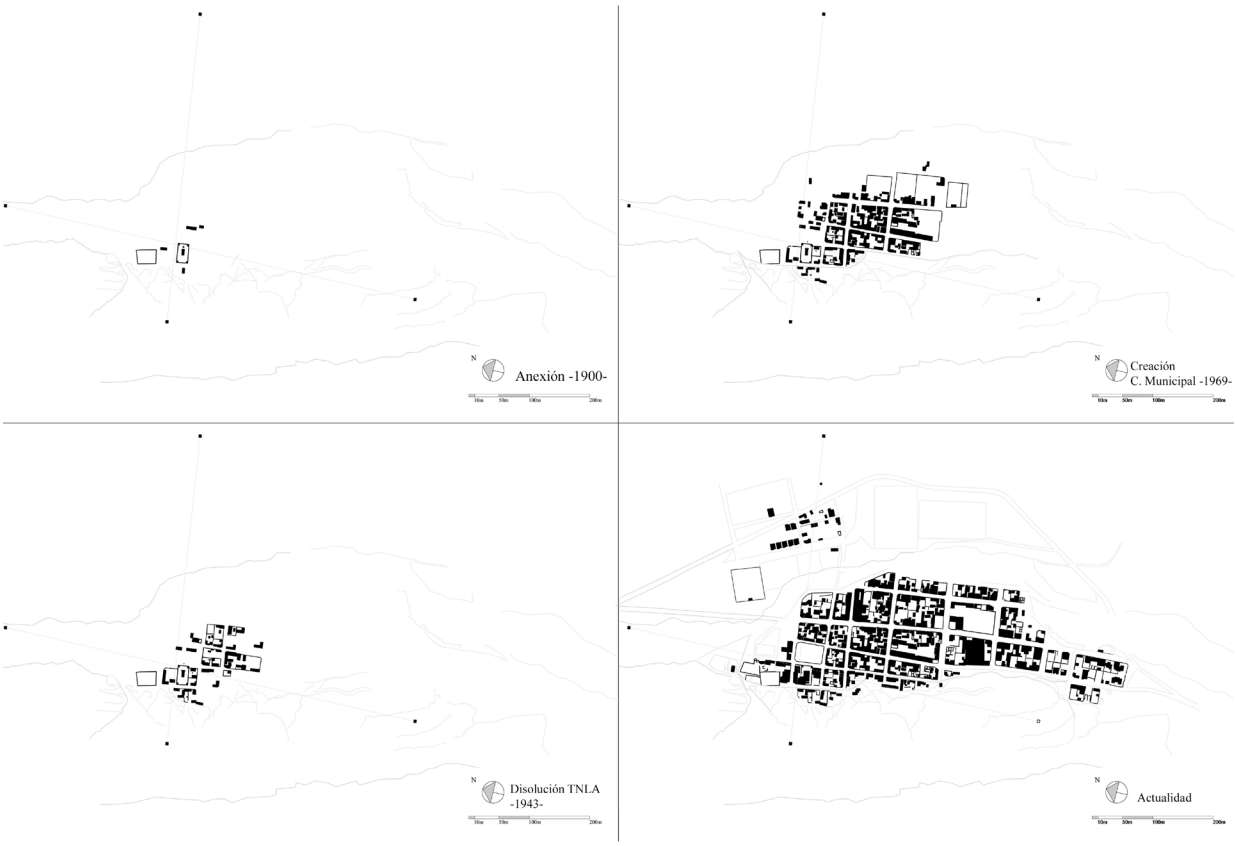

Figure 5. The town's urban layout, reconstructed using photographs. Source: Preparation by the author.

photograph, the three buildings that the school occupied are shown. The first corresponds to a family house on the corner, diagonally from the Church; the second, to a place around the Church; and the third, which is the current one, located to the south of the village. The last two, like the rest of the state institutions, are distinguished from the rest by their white color.

The analysis of other factors that intervened in demographic processes, such as the growth of salaried jobs and, especially, those associated with mining operations (Barada, 2016), exceeds the objectives of this work. However, it is relevant to consider that it is only towards the late 1970s, when Coranzulí was already part, as a Municipal Commission, of the province of Jujuy, that the reading of census data shows a certain match between the increase of buildings and a more or less permanent settlement of families in the village, even though this process did not occur in linear terms, and the mobility logics associated mainly to grazing, persist.

What is remarkable here is the way the state architecture and, particularly that of the school, were constituted as central instruments in the town's development and the redefinition of its centralities, at least in formal terms (Figure 5). The 1970 image allows drawing attention to its evolution from the successive locations of the school. The first two, which covered the first half of the 20th century, make it possible to recognize that, in urban terms, the school formed a centrality together

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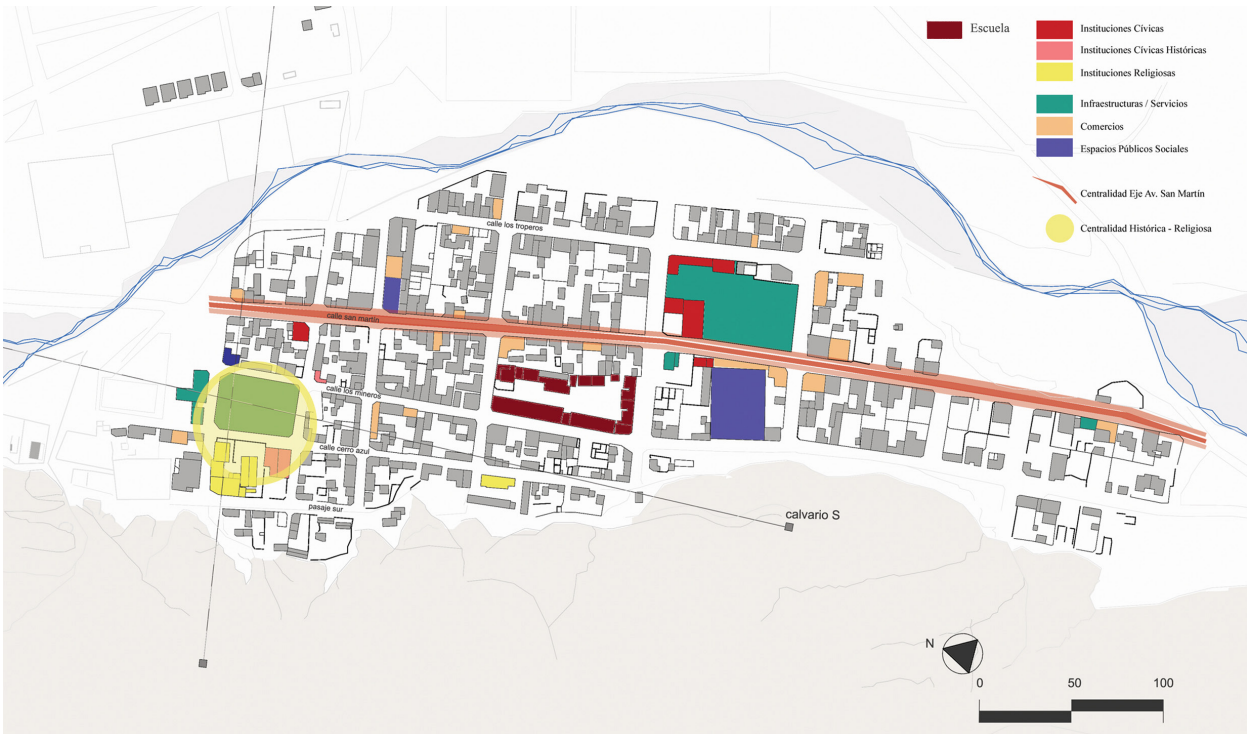

Figure 6. Indication of the centralities referred to in the town's fabric. Source: Preparation by the author.

with the church disputing, in a certain way, its role as an organizing institution of the town. However, in the events after the 1970s, this relationship is displaced to a large extent by the location of the new school -under construction since the 1960s and observable in the same photo, which favored the growth of the urban fabric to the south and the consolidation of an intersection where the buildings of the City Commission, the Justice of the Peace and, associated with these, the architectures for the town's infrastructure and services, electricity plant, television antenna, radio antenna, and the telephone booth (Figure 6), are located. In this framework, the church has imposed itself since colonial times as that core element of the village, whose institutionality has been re-signified from the local dynamics. The school is the institution that, with the advent of capitalism, replaced the church as the dominant institution of the state apparatus (Segato, 1991), but also that dynamizing element of urban dynamics around the people, whose meanings must also be decoded from the local materiality.

Analysis of the school's architecture: institutional architectures, and "institutionalized" architectures?

The first Coranzuli school ran from one of the houses that the families had in the village, near the chapel. It comprised two rooms built with stone foundations, adobe walls, and a gable *guaya***5** roof. Only one door between the angle of two walls allowed access to the inner rooms, with a single opening towards the street. Inside, the rooms can be distinguished with mud *benches***6**. Both rooms had access from the courtyard, where the oven and the flagpole with the flag were located. From the reconstruction

5 Roofing technique that uses straw and mud.

6 The interior projections on the lower part of the walls that used to function as benches or beds are locally called *poyos*.

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Figure 7. The original state of the first school house in 2012. Exterior and interior views from the yard. Source: Photographs by the author.

of some local accounts about the operation of this school, an account can be given of the uses of the premises: while one of them was intended for the dining room, the other, where the *benches* were, saw classes held. It is also interesting to mention that while this house was a school, it did not stop being housing, and even the room with the *benches* was still used to sleep in at night. The spaces of pastoral domestic life, those that had been denigrated by the official accounts in their first descriptions, were those that, towards the beginning of the Argentine intervention in the area, housed the state institutions. (Figure 7)

In 1923, the Sectional Inspectorate of National Schools conducted a report where it was recommended to build new premises for the schools of the territory[7]. The second school of Coranzulí was located on rented premises, specially designated for this purpose, on land alongside the church. The building in question consisted of a single room of a somewhat larger scale than the houses, facing east, with a *guaya* gable roof. It had an entrance and two openings on its front, plastered in white; to the rear was a courtyard with the mast, backing onto the atrium of the church, which meant that one of the lateral accesses to this was walled up. It should be considered that, while the church of Coranzulí had no daily activity and the visit of the parish priests was sporadic, the school implied, on the contrary, the effective presence of state agents and teachers, who intervened in the daily life of the people. From this approach, we can recognize the tension in the urban relationship in the future architecture of these institutions, based on needing to separate the atrium courtyard as part of a process where civic life begins to take place in spaces different from the home, but also of those in which the church complex has been associated to the conception of the town as a place of collective pastoral celebrations. In the same way, this relationship also allows considering the limitation of state actions, since here there is an institutionality that is largely sustained by local senses and materialities, rather than with a physical presence of the state. It is, ultimately, about the presence of state agents (teachers) operating in local settings, acting in the stead of the institutions themselves. (Figure 8)

7 AGN, SH IIII, s/n. Letter sent by the Sectional Inspector of National Territorial Schools to the Governor of the Andes Territory, dated April 4th, 1923.

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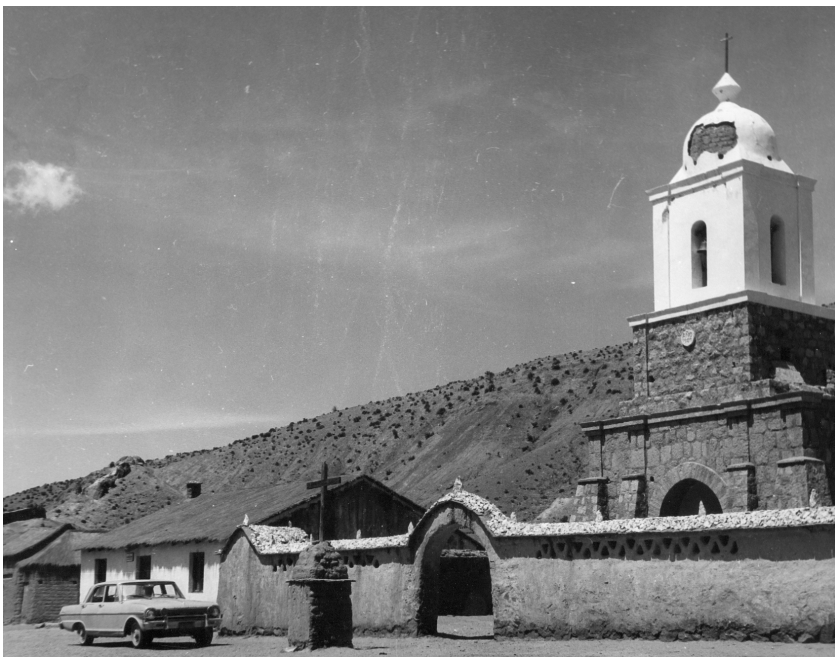

Figure 8. Chapel front in 1970, with the front of the second school to the rear.
Source: Unpublished photograph by Federico Ortiz (Documentation Center of Latin American Architecture).

> In the afternoon, the town met to jointly address by letter, the President of the Republic to request the construction of a School building since the currently occupied premises are rented and lack the most basic means for the purpose given to it. (School Historic Book, October 1948)

This record in the School Historic Book brings one closer to the construction of the third school, the first on its own premises, which is also visible in the photographic record of the 1970s and which, with some modifications, remains as a school building to this day. Until then, there had been no direct state policy that promoted the construction of buildings in the area and, in fact, the first action in this regard follows a request by the villagers. It is only in 1960 that we find another official voice that, from a school manual, talked about the needs and architectural characteristics of school buildings in the province:

> It will be a stamp of honor for the people of Jujuy when all their schools, even those located in the tropical regions or the pampas and Puna mountains, develop their cultural and civilizing work in modern state buildings, comfortable and suitable to the climatic characteristics of each region. (Saravia, 1960, p. 158).

It is interesting to point out, in any case, the heterogeneity of voices that, from the state itself, in a decentralized logic, started mentioning the need to build a school, a building that, due to its architectural characteristics, would enable the success of the civilizational process, even if this had not led to direct actions. In short, the beginning of the construction is recorded in the School Historic Book in 1963 and gives an account of the construction of a classroom. The role of local voices in this process is significant to understand their relations with

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Figura 9. Left: Aerial view of the current school. Upper right: Front of the school and three other images of current institutional buildings: the Municipal Commission, Service Infrastructure at the Bus Terminal, and recreational infrastructure. Lower right: Images of current private houses. Source: Photographs by the author.

the state. First, while Coranzulí was already part of Jujuy in 1948, the request continues to be channeled directly to the national authorities. Secondly, when the construction began, it was through a subsidy granted by the Federal Intervention to the People's Neighborhood Commission, which, although framed in the unstable political situation of the 1960s, makes visible the relevance of the role local civic institutions have had in the constitution, also material, of the state framework in these places.

The architecture of the building comprises blocks of classrooms and services located on the boundaries of the lot, forming a terraced façade to the street and an open interior space that outlines the courtyard. One of the significant issues regarding this work, to think about how state institutions built their urban rhetoric through the architecture of the town, is its composition of façades and roofs. (Figure 9) As mentioned in the photograph taken by Ortiz (1970), it is possible to see that while the first classroom sector has a gabled *guaya* roof, a second block is already formed by a smooth front with raised cornice above the roof's upper level, the latter made of calamine. With some alterations in its materiality, particularly from the change of the roofing sheet, and the completion of the terraced front facing the street, this third building remains in use today and is the first building built specifically for its function[8]. In its architecture, the tensions between the local logics of house construction are evident, whose techniques, forms, and aesthetics were historically denigrated by state rhetoric, associated with the rationalist and white architecture that has characterized state works in the country since the 1940s (Liernur, 2008). Thus, the production of terraced fronts facing the street, the replacement of the *guaya* roofs for sheet metal, the incorporation of friezes and cornices on the facades, and, in particular, the replacement of mud with cement coating, are alterations that have progressively been forming part of the aesthetics of the town (Barada 2014; 2016).

Finally, it is necessary to wonder about the role these material actions, which even constituted in the framework of singular temporalities, in a

8 In the architecture after the 1970s, some specific references to planning can be seen from the provincial offices, although this documentation was not found for the case of the school in particular.

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dispersed way, and in the framework of diverse interests, have had in the progressive, not linear, transformation of local architectural productions. If, as has been stated before, the state finally made use of local materialities for its own deployment, it is from the last decades of the 20th century that its presence becomes not only effective in material terms, but its agency transforms a good part of local work, even in the construction of domestic architectures.

CONCLUSION

This work sought to focus on the singularities of the construction processes of hegemonies by the state since the first decades of the 20th century, generating questions about the multiplicity of operating state agencies and, especially, about the meanings and roles local populations have had.

In urban terms, the notions about order that the development of Coranzulí's layout expresses since the installation of the first school, are one of those ideas produced in the state consolidation framework. The transformations that the school system imposed on the mobility dynamics of the pastoral populations are evident and caused greater settlement in the towns and, consequently, their inherent growth. However, understanding how a town that was annexed to Argentina only in the 20th century, and whose population did not live there, in just forty years already had a significant number of houses arranged in blocks and by 1970, a recognizable urban form without specific ordinances, implies considering that it is not enough to focus on the state "action". It is a matter of thinking that, necessarily, within the framework of the relations between state agencies and their discourses, a local intention emerged to make Coranzuli a recognizable place for the state. As it has been argued, this was not built as a response to specific ordinances or regulations, but rather from the local acceptance of certain hegemonic discourses constructed by state agents, particularly schools. However, even within the framework of these asymmetric relationships, this urban form did not respond directly to a populational logic. On the contrary, it can be said that it was constituted as an urban image that allowed the local populations to sustain, even in the face of attempts of coercion, rural and mobile life on the margins of statehood. The displacement that the development of this layout produced, not only in geographical but in symbolic terms, regarding the sense of the town for the shepherds and the sense of statehood, also needs to be observed with caution. In this sense, the evolution of the school's architecture made at least two issues visible.

The first has to do with the ways of production and their agents that, in this case, involved, on one hand, the teachers who appear to hold institutionality in materialities foreign to the state itself, contrary to the local logic and senses that even pushed the children away from the school; and, on the other, to a local community that, even sustaining their own ways, housed the school for several decades in their own spaces and then specifically demanded the construction of a building for this purpose. It is

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not a question of direct state action on the margins, but of the margins, with their actors, senses, and spaces constituting themselves as claimants of their condition before the state itself. This allows problematizing the scope of discourses in construction processes of territorial hegemonies that, undoubtedly, are more complex, and to recognize the dynamics in production processes concerning local times.

The second issue has to do specifically with the architecture and the way they operated in significantly more lax times than in central places for the construction of an image. At the same time, it is essential to recognize the profound impact that discourses on local techniques and ways of living have had that, constituted from statehood, generated significant transformations.

Finally, it is in this setting that the state architecture on the margins of the state leads to problematizing the very notion of margin and considering the active role of local actors in the production of their own senses over the state, even in the context of deeply asymmetric power relations, that generate, a "playing space" (*sensu* De Certeau, 2000 [1980]). This allows thinking about the negotiations established by the people and the different groups where they participate, between the local constructive logic and the models from the state.

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Public architecture: The First State Bus Terminal for Mendoza (Argentina, 1969-1972)

ARQUITECTURA PÚBLICA: LA PRIMERA TERMINAL DE ÓMNIBUS ESTATAL PARA MENDOZA (ARGENTINA, 1969- 1972)

ARQUITETURA PÚBLICA: O PRIMEIRO TERMINAL RODOVIÁRIO ESTADUAL DE MENDOZA (ARGENTINA, 1969-1972)

Figure 0 Panoramic photo of the Terminal. Source: Personal archives of architect Gilberto Olguín (1972).

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RESUMEN

Las arquitecturas para el transporte y la movilidad tuvieron, entre las décadas del sesenta y setenta, un período de profusa ejecución en Argentina, impulsadas por un contexto político que propugnaba el desarrollo en todas sus formas. Programas y tecnologías innovadoras fueron empleados en una tipología que suponía desafíos en términos resolutivos para los profesionales de la época. Entre las numerosas obras que se construyeron en el país, el presente artículo destaca el proyecto de la Terminal de Ómnibus para Mendoza, una de las primeras construidas en una capital provincial que, planificada en 1964, llegó a inaugurarse en 1972, después de un acotado lapso de construcción. A partir de la consulta de publicaciones técnicas de época, documentación gráfica del proyecto, prensa, labores de gobierno y una entrevista al proyectista principal de la obra, este texto en clave histórica, busca detenerse en las particularidades de la ideación y ejecución de este hito urbano, reflejo local del grado de avance en materia de tecnología y técnicas constructivas, como también de la capacidad ejecutiva del Estado provincial.

Palabras claves: estaciones de ómnibus, prefabricación, edificios para el transporte, arquitectura pública, ciudades capitales.

ABSTRACT

The architecture for transportation and mobility had, between the sixties and seventies, an intensive period of execution in Argentina, driven by a political context that advocated for development in all its forms. Innovative programs and technologies were used in a typology that posed challenges in resolution terms for the professionals of the time. Among the numerous works that were built in the country, this article highlights the Mendoza Bus Terminal project, one of the first built in a provincial capital that, planned in 1964, was inaugurated in 1972, after a short construction period. From the review of technical publications of the time, graphic documentation of the project, press clippings, government work, and an interview with the site's main designer, this text, in historical terms, seeks to delve into the particular aspects of the ideation and execution of this urban landmark, a local reflection of the degree of progress in terms of technology and construction techniques, and the executive capacity of the provincial State.

Keywords: bus stations, prefabrication, transport buildings, public architecture, capital cities.

RESUMO

As arquiteturas de transporte e mobilidade tiveram entre os anos de 1960 e 1970 um período de profusa execução na Argentina, impulsionado por um contexto político que defendia o desenvolvimento em todas as suas formas. Foram utilizados programas e tecnologias inovadoras em uma tipologia que impôs desafios em termos de resolutividade para os profissionais da época. Entre as inúmeras obras construídas no país, o presente artigo destaca o projeto do Terminal Rodoviário de Mendoza, um dos primeiros construídos em uma capital provincial que, planejado em 1964, foi inaugurado em 1972, após um curto período de construção. A partir da consulta de publicações técnicas da época, documentação gráfica do projeto, imprensa, obra governamental e uma entrevista com o principal idealizador da obra, este texto em chave histórica busca deter-se nas particularidades da concepção e execução deste marco urbano, reflexo local do grau de progresso em termos de tecnologia e técnicas de construção; bem como da capacidade executiva do Estado provincial.

Palavras-Chave: rodoviárias, pré-fabricação, edifícios para transporte, arquitetura pública, capitais.

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INTRODUCTION

This article focuses on architectural programs designed to facilitate State-led land territorial displacements. The focus is on a specific case within the production of public architecture: the Bus Terminal for the province of Mendoza[1], to understand its production logic in a developmentalist political context and to compare it to other architectures projected for the same program that was being planned/executed simultaneously in other parts of Argentina. A typology is sought that cross-references the concepts of transport and mobility, understanding mobility as a ***performance*** (social practice) in the territory, and transport as the means or vector that makes that movement (Gutiérrez, 2012, p. 65).

The Terminal is part of a set of projects that were materialized within the framework of an intended territorial integration, developmentalist economic-political ideas, changes in the industrialization of construction, and renewed design processes (Müller, Shmidt & Parera, 2020). Work was carried out on mobility-related programs fostered by the great strides experienced by the transport of passengers and cargo by air and land, and the consequent decline of the railway system: several bus terminals were designed and built throughout the country, in addition to airports. These policies, based on the premises that the Alliance for Progress[2] projected for Latin America, were also complemented with support for tourism (Carsen & García Bossio, 2020). The application of new technologies and design logic is made legible in the proposals for the typology addressed, particularly regarding the possibilities of functional flexibility. Some of the projects arose from national tenders, others were developed within state technical offices. The latter is the case of Mendoza, whose Terminal was designed by the Province's Directorate of Architecture and Planning (DAyP, in Spanish), part of the Ministry of Public Works and Services (MOySP, in Spanish), joining the modernization processes that were taking place nationally.

The study of architecture generated by/for the State in Argentina has, in general, been immersed in the general history of the area. It is from relatively recent works that this cataloging has acquired its own space. The research linked to the topic of transport is specifically oriented to the development of infrastructure[3] (Ballent, 2005; Piglia, 2019; Zunino, Grustchesky & Piglia, 2021; Raffa & Luis, 2020). Other papers specify, in different concepts, the identification of aspects of the Argentine architectural culture contemporary to the execution of our case study (Shmidt, 2014; 2016; Müller & Parera, 2016; Müller, Shmidt & Parera, 2020) or the infrastructure linked to energy (Costa, 2016; 2020). To a lesser extent, it is possible to find works that have focused on the architectures associated with communications/regional displacements of terminals for the land transport of people and goods (Schere, 1983; 1985)[4]. The works carried out by the State in the mid-sixties show the interest in modernization in the so-called "developmental era", characterized in political terms by a succession

1 Mendoza is an intermediate-scale province, located in the center-west of the Argentine Republic.

2 This is the economic aid plan promoted by the United States for Latin American countries, which sought to finance "development" by building affordable housing, eliminating illiteracy, increasing access to drinking water, improving productivity, etc. The main action points were: a) Agricultural production and export; b) Housing; c) Means of transport and communications; and d) Public development and administration (Carsen & García Bossio, 2020, p. 200).

3 "Infrastructure" comprises a set of elements, endowments, or services needed for the proper functioning of a country, a city, or any organization, such as bridges, roads, tunnels, pipelines, etc. (Bianchi, 2022a).

4 As an exception, the profuse bibliography on railway architecture on a national scale can be mentioned, among which the work of Jorge Tartarini (2000) stands out.

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of confined democracies and de facto governments between 1960 and 1972. This is probably the last moment of the 20th century where the State functioned as a promoter of major works and plans, a situation marked by full recognition of "modern architecture" from the technical and political ones (Liernur, 2001). Developmentalism was a difficult period in terms of political and social aspects (political instability, social upheaval, and bids for formal and real power), but it was also a cycle that triggered regional projections associated with public works that had a positive impact from a development and modernization point of view. The development process focused on the substitute industrialization of intermediate and durable consumer goods, where the increase in demand was ensured by investment, public spending, and consumption from high-income urban social strata (Auyero & Hobert, 2007). Seeking to "reach the first world", the State at its various scales began to promote policies aimed at improvements in equipment and infrastructure, regional connectivity, and the installation of heavy industry (Liernur, 2001). It was from planning processes that medium- and long-term plans (economic, urban, etc.) were fostered, to broadly transform and modernize the country's structures**5**.

Based on the consultation of technical publications of the time, graphic documentation of the project, government work, press clippings, and an interview with the main designer of the Terminal, this article - anchored in Cultural History - seeks to position inquiries that break the paradigm of the national aspect, as a research horizon. The histories of each province appear as necessary to really complete the Argentine map of architecture, to understand contexts and producers, and even to emphasize the contingency and autonomy of these manifestations or their dependence on the centers (Raffa, 2020).

The passenger transport system

During the first third of the 20th century, the foundations of public motorized transport systems were laid in the province (Moyano, 1997) and the rest of the country. In fact, between 1900 and 1930 taxi, bus, and shared taxi services were launched. The bus would appear in Mendoza in 1914. The poor condition of the roads was one of the main obstacles to the development of this new form of motorized transport. Fuel supply was another issue, until the foundation of ***Yacimientos Petrolíferos Fiscales*** (YPF) in 1922, which opened the doors to the long history of crude oil extraction and refining in the country.

Throughout the 1930s, the relevance of motorized collective transport increased, benefited by the available fuel and the improvements in the road network. In this regard, the statistics of the Provincial Directorate of Highways showed progress in the construction systems used, which optimized the network with paving: by 1931, only 1% of the roads were paved (asphalted or concreted), and by 1942 this percentage had risen to 8% (Raffa and Luis, 2020). In those years,

5 Part of this process was guided through the creation of development plans formulated by the National Development Council (CONADE) which, starting in 1962, institutionalized planning as a discipline (Jáuregui, 2015).

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the first collective transport companies were consolidated, such as the ***Compañía Internacional de Transportes Automóviles SA*** (CITA) and the ***Compañía Argentina de Transportes Automóviles*** (CATA) which, in addition to intercity trips, connected the province with Buenos Aires, San Juan, and Chile. Other companies linked the capital with the eastern part of the urbanized area (Villa Nueva, Colonia Segovia, Corralitos, and districts of the department of Maipú) and with the departments of the southern zone (General Alvear and San Rafael). By the 1940s, there were 66 lines dedicated to interdepartmental passenger transport (Giménez Puga, 1940).

As for the location of the bus stops, the short- and mid-distance passenger lines arrived and departed from different points of the city, since they used the workshops or coachworks that the companies had as garages. Some years later, the stop for all the companies was moved to Las Heras Avenue, in the center of the city, which caused serious traffic problems in the area. Among other causes, this situation encouraged CITA to build its own terminal around 1940, near the heart or zero-kilometer point of Mendoza, which operated until the inauguration of the new Terminal, in 1972 (Bianchi, 2022b). From 1950, it was increasingly evident that the competition between trains and buses regarding intercity passenger transport was beginning to be won by the latter. This produced a modification in the structure of transport flows that changed from railways to buses[6]. By 1971, the provincial government, led by comptroller Francisco Gabrielli (1970-1972), had allocated funds together with the Nation for the widening and conditioning of provincial and interprovincial routes, increasing the road network to more than 10,000 km (Provincial Government, 1971, p. 15)

A Terminal for Mendoza

The issue of land communication began to be, as was mentioned, of interest to the State on its various scales. Regional connectivity was understood in the political context as a condition for economic development. The construction of the different Bus Terminals was not planned as the regional structuring of the railway system had been. These were, in any case, individual development projects, carried out according to the need or scale of the locality or city where the decision was made to locate them and that, for the most part, had as background, stations built by the private transport lines running in each place. During the 1960s, the projects for mid-scale Terminals were put out to tender, in the Buenos Aires towns of Luján (1960), Tandil (1965), Azul (1966), and Monte Hermoso (1967), among others[7]; and in regional cities such as the one planned for the city of Santa Fe, projected by the province's Ministry of Public Works. The Córdoba Terminal, whose project dates back to 1970, also devised by the state technical teams was added to the list, in this case, from the provincial Architecture Directorate. A year later, buildings were designed for the towns of Venado Tuerto in Santa Fe, and Puerto Iguazú in Misiones. Both

6 This phenomenon also occurred in other southern cone countries, such as Brazil, and was replicated in cargo transportation where trucks displaced the railway. A similar process also took place between 1950 and the beginning of the 1960s, when vehicle numbers in Argentina grew by more than 100 % (Nuñes & Ortega, 2016, p. 11).

7 The project for Luján was won by the studio of Juan José Llauró and José Antonio Urgell; for Tandil, by Jorge D'Elía, Roberto Ferreira, Tomás García, Elsa López, Roberto Ramírez, and Williams Simioni; for the town of Azul, the proposal of the Antonini, Schön, Zemborain and associates Studio was chosen; while for Monte Hermoso, it was Álvaro Arrese and Luis Caporossi (Schere, 1985).

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works are part of a tourism plan carried out by an ad-hoc team of the FAU-UBA, comprising the architects Jorge Moscato and Rolando Schere (Müller, Shmidt & Parera, 2018). In most cases, the solutions were linear, based on extended sites on the available land, connected by open galleries. The exclusive material was concrete, usually pre-molded.

It is in this context that, in 1964, based on a project presented by Congressman Tomás Guillot, the proposal to build a Terminal suitable for what the province of Mendoza needed, arose. At that time, a bicameral commission was formed to deal with the issue and the location was established. Its surface area was then extended along with the general characteristics of what it should contain (The year of the decision, 1972). Five years later, the then director of the DAyP, architect Juan Carlos Rogé, suggested a national tender for the project, an idea that was rejected by the political-military leadership that determined, on one hand, the formation of an advisory committee, and on the other, that the project's decision would be left in the hands of a team from the same state body, which in a span of four months had to have completed the proposal, as well as all the executive documentation for its call to tender. The Advisory Commission, whose main mission was to establish the program of needs for the building to be built, was made up of representatives from different divisions. For the Provincial Highways Directorate, the engineer Robello participated; and for DAyP, the architects Raúl Panelo Gelly and Gilberto Olguín**8** were hired to coordinate the project. They were joined by Engineer Negri, as a representative of the Provincial Directorate of Transit and Transport (Olguín, 2022). The team of designers led by Olguín included the architects Miguel Ángel Guisasola, Osvaldo Cocconi, and Hugo Alba, all members of the permanent staff of DAyP**9**. The structural calculation was led by the engineer Agustín Reboredo, who was also part of the state agency. Meanwhile, the work's technical direction fell upon Olguín himself and the engineers David Dimov, Pedro Portillo, and Benjamín Mathus (La terminal de omnibus de Mendoza, 1976, p. 30).

The works began on July 1st, 1970, and were completed in February 1972. They were paid for with the issuance of internal public bonds. The total budget of the works amounted to $1,400,000,000 (Provincial Government, 1971, p. 47). Once inaugurated, via Law 3832/72, it was established that a Board (created alongside the Terminal's director) would be in charge of the administration of the new Bus Terminal. It would report to the MOySP, and had among its responsibilities, the organization, management, and control of the services offered, as well as public transport services in its area, and the commercial operations conducted onsite. This law also established the mandatory use of the facilities for any natural or legal person who provided public transport services in the province (regular, national, and international) **10**. This disarticulated any action of transport companies outside state control and also entailed a series of State obligations for them, including the

8 Graduated from the University of Buenos Aires in 1962. In 1967, he was called to work in the design team who developed a standardized design for urban and rural schools. He was part of teams that competed and won projects for the Social Welfare Bank (1969) and the building for the Municipality of the City of Mendoza (1965-1969) (Raffa, 2019, p. 213).

9 Data on the professional background of the rest of the participating architects can be found in Raffa (2017; 2019).

10 The inauguration was made under the (de facto) governorship of Felix Gibbs. The events were attended by President Agustín Lanusse (The year of the decision, 1972, p. 2).

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Figure 1. Panoramic photo of the Terminal. Source: Personal archives of architect Gilberto Olguín (1972).

payment of fees (general and for platform use), subjection to safety, health, or morality inspections, and even the possibility of receiving fines. One of the main companies that began to have the Terminal as its headquarters was the old CITA, which in 1960 had changed its corporate composition to a cooperative, called ***Transportes Automotores de Cuyo Ltda.*** (TAC), an association that had about 50% of the trips that departed by land to and from Mendoza, until late in the last decade of the 20th century.

Now, what were the characteristics of the project for the Mendoza Terminal? The land chosen to build the project was the site of the old Guaymallén Fair, to the east of the regional capital, delimited by Acceso Este Avenue, Reconquista Street, Costanera Avenue, and Alberdi Street. A strip of land was annexed to the original property to the east, which required the expropriation of several properties, reaching a total of 5 and a half hectares of available surface. Although the site was considered to be far from the downtown area, it had the benefit of having a fast connection with important interprovincial roads, because it was adjacent to the junction of two primary avenues, National Routes 40 and 7 (Figure 1).

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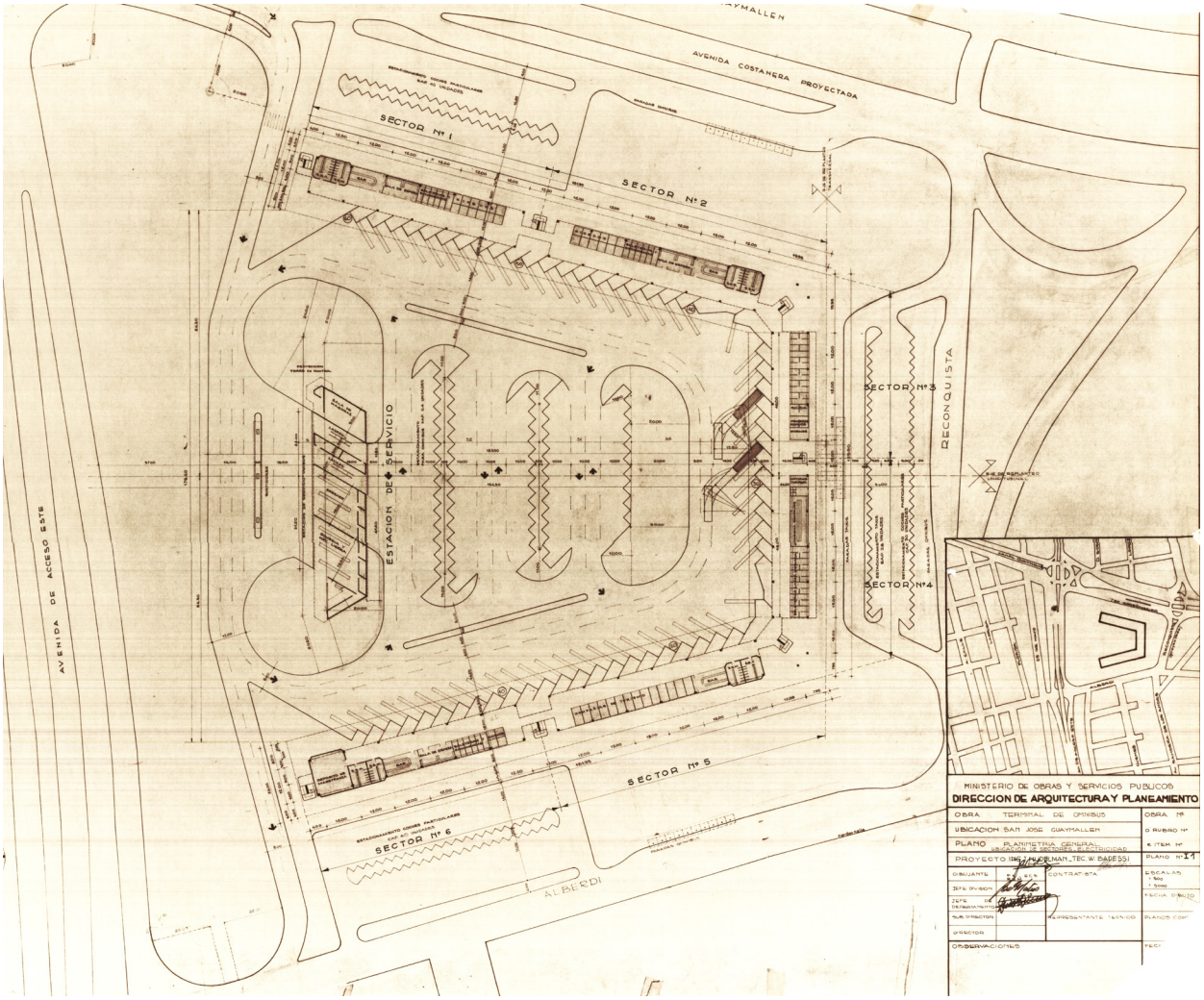

Figure 2. General planimetry. Source: Digital Archive of the Directorate of Architecture and Engineering, Ministry of Planning and Public Infrastructure (DAI-MIPIP), Government of Mendoza.

The site, where horizontality prevailed, sought the greatest efficiency in the internal circulation of the units, along with minimum congestion for the surrounding streets given the movement of the Terminal itself. Hence, the building was located so that it left all sides free. It had a U-shaped floor plan, open to the south, and a covered area of 19,000 m^2 (Figure 2). On the ground floor, there were ticket offices and premises for long and mid-distance companies, a luggage reception area, premises for tourism companies, commercial premises, a waiting room, toilets, and three bars located at different points of the floor plan. All these functions were linked using open circulation galleries, which ran throughout the building's wings. It also had services such as mail, telephone booths, a first aid room, a police post, and general offices in the north wing, where the main access was. A restaurant, a candy shop, and a bank branch were planned on the top floor. The decision to locate the food sectors on the first level is repeated in the rest of the contemporary Terminals since the users could watch the arrival and departure of the buses. The terminal's administrative offices and those of transport companies were also located on this level. Developing the layout at different levels was one of the complexities of the typology, insofar as it was essential to be able to solve (or restrict) the crossing of

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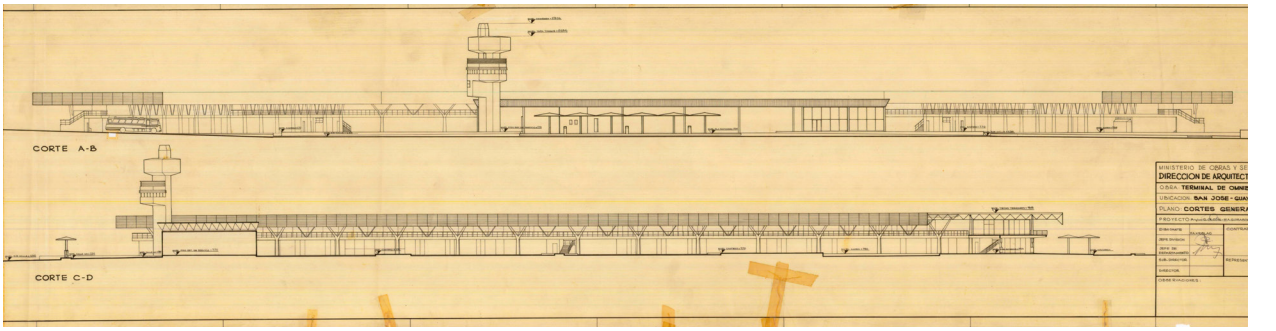

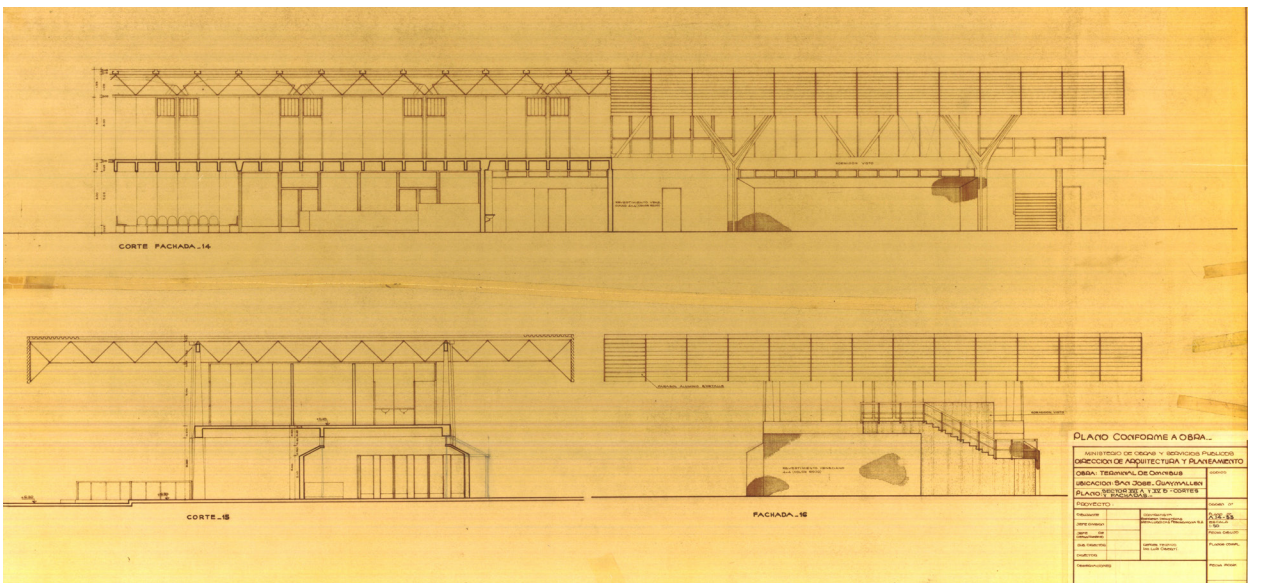

Figure 3. General Cross Sections. Source: Digital Archive of the DAI-MIPIP, Government of Mendoza.

Figure 4. As-built cross-sections and facades. Source: Digital Archive of the DAI-MIPIP, Government of Mendoza.

pedestrian and vehicular access to the platforms, but also to the retail sector and other services offered by the station (Figures 3 and 4). This brought some problems such as, for example, the presence of residual or dead spaces on the first levels since the greatest circulation was (and continues to be) at the platform level. Unlike other terminals built in the same period (Venado Tuerto, among others), the project for Mendoza was conceived in an oversized way concerning the demand of that time (45 vehicles every 10 minutes), for which no extensions were foreseen (The Mendoza bus terminal, 1976, p. 53).

Regarding the construction system, a mixed structure of reinforced concrete and steel was used, organized using a succession of reinforced concrete porticoes and triangulated lattices, developed along the top of the upper level, with columns molded on-site and set 12 meters apart. Mezzanines used ribbed slabs and, together with the columns, formed a mechanism of connecting rods and braces, to transmit the load of the roofs to the ground, but also to endure lateral thrust during the most unfavorable seismic movement, i.e., the plane perpendicular to the longitudinal center lines of the building's wings (Figure 5). To minimize the roof load, a metal tubular stereo-structure was used, pre-fabricated and assembled onsite, with trapezoidal aluminum sheet roofs and ceilings with modular panels of

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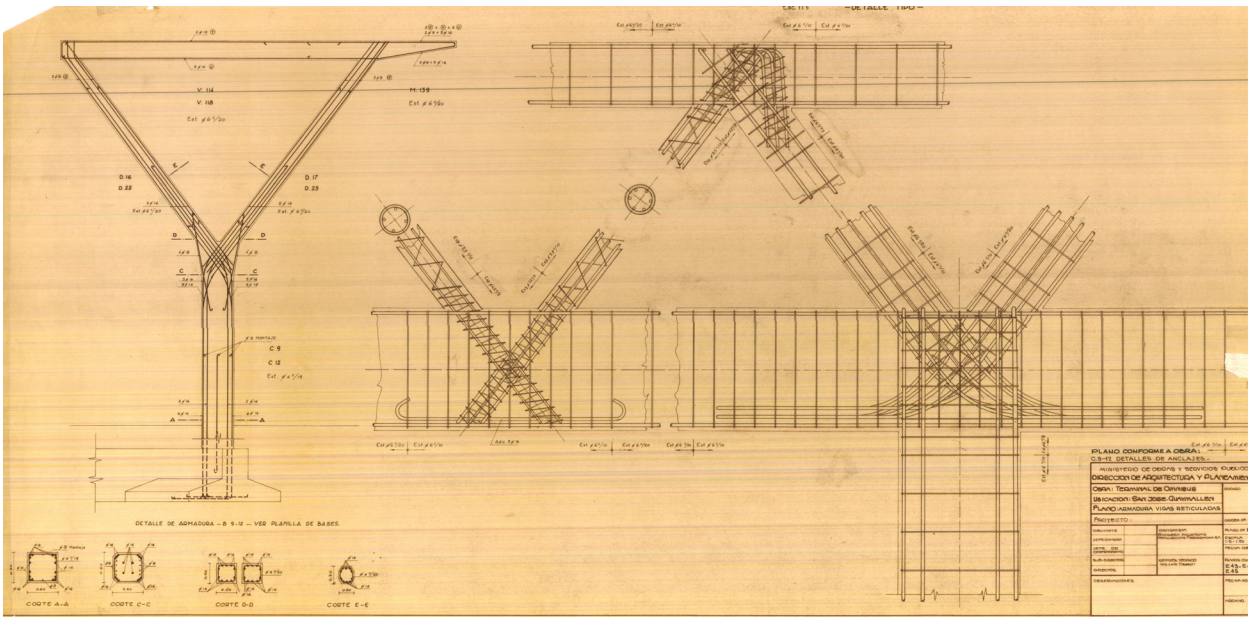

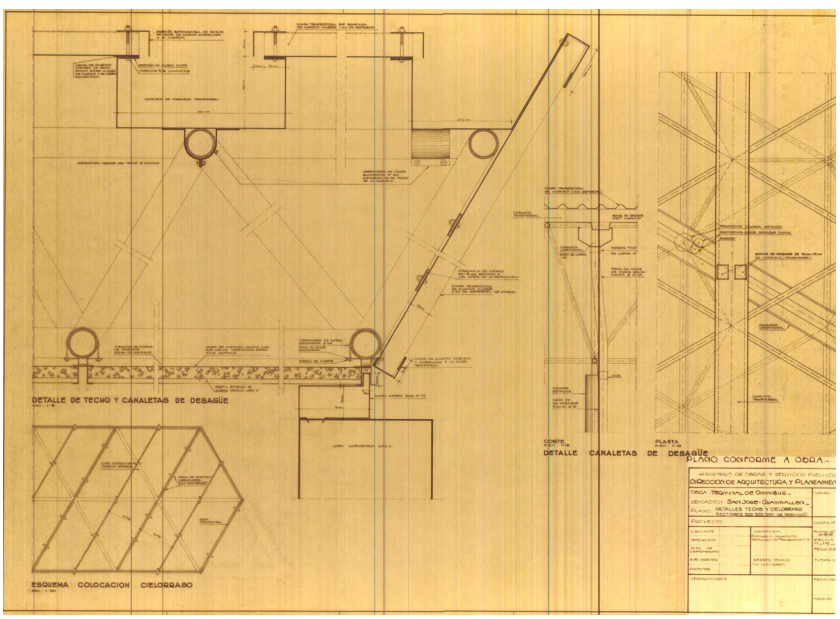

Figure 5. Detail of the reticulated beam trusses. Source: Digital Archive of the DAI-MIPIP, Government of Mendoza.

Figure 6. Details of the roof and ceiling. Source: Digital Archive of the DAI-MIPIP, Government of Mendoza.

the same material. The interior and exterior enclosures sought to provide the building with the greatest possible flexibility (Figure 6). For this purpose, metal modular panels coated in PVC, filled with insulating material, and painted with different colors were used, each related to the activities to be carried out in the premises they separated (ticket office, services, shops, offices, etc.). (Figure 7).

The execution of the structural type foreseen was made possible by the intervention of the local company IMPSA (Industrias Metalúrgicas Pescarmona S.A.I.C.), winner of the tender and specialist in the construction of large steel structures, in addition to electromechanical equipment. The work was executed in temporary association with the

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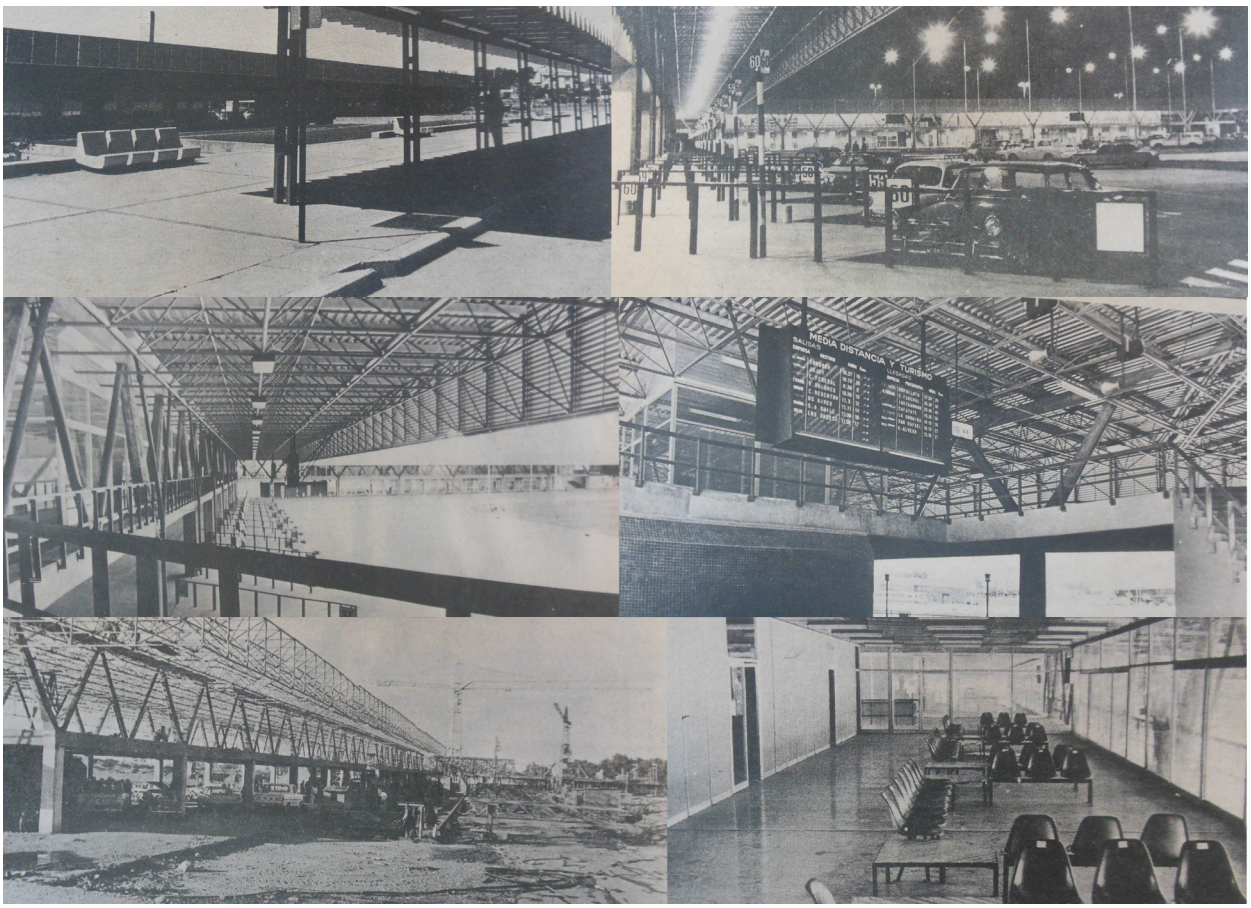

Figure 7. Mosaic of images of the Terminal. Source: Diario Mendoza (November 10, 1972, pp. 2-23.

construction company Depetris, which took care of the civil part. Before the Terminal, there was no other public building that used stereo-structures as part of the roof solution, the "big theme" of this typology (Schere, 1985, p. 50) which, along with its uniqueness and its "urban landmark" role, reflects the architectural thought, the techniques available at that time, and the efficient response to a problem arising from inserting the project in an area with high seismicity. A similar roof was used for the Córdoba Terminal, which started a year before that of Mendoza and that was part of the cases consulted by the local designers as "background information" **11**. The large paved surfaces were also handled by IMPSA, by subcontracting other local companies.

The exterior areas included a parking sector for 240 vehicles, as well as surrounding gardens using terraces, which absorbed the large unevenness of the terrain. Provision was made for the afforestation of all the building's perimeter areas, as well as the parking lots and the waiting spaces of the shared taxis, separated by reinforced concrete breakwaters. A premise of the project sought to facilitate the pedestrian connection between the new station, and the city, which demanded the development of a pedestrian walkway alongside Alem Street, which ran under the lanes of Costanera Avenue and over the Cacique Guaymallén canal.

11 Another project revised was the George Washington Bridge Bus Terminal (1963), in New York, but programmatic differences reduced its relevance as background information (Olguín, 2022).

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The Terminal had 60 passenger platforms. Using a control tower, designed at the southwest end of the site, arrivals and departures were assigned through a telematic notification system, that carried the occupation information of each platform to the command room in the tower. Its position also allowed staff to have a visual record of platform occupation. The bus yard had a service station for fuel and a parking sector for the units.

CONCLUSIONS

Working on this article allowed getting to know the details of the project and construction of the Mendoza Bus Terminal, in the particular context of the "development era". First, some aspects common to the issue of land transport were confirmed, among them, the relevance that terminals began to have, both in regional capitals and in peripheral towns, to consolidate a system of stations to the same extent as the road network, and to the detriment of the railway. Secondly, the typology used, which was a shared demand in other enclaves, also highlighted its own issues, such as the location on the edge of the urban fabric or the development of suitable structural solutions for a seismic zone. The "great ceiling" that held within its bosom all the activities from the program of needs was a common solution to other proposals. Alongside this, the definition of internal corridors constituted the second problem to be solved, since this was a building with intensive public movements; an aspect that is also confirmed in the examples of other provinces.

Perhaps one of its greatest successes, as one of the designers also observed, was the building's location, at the intersection of two highways, enhancing land links. In parallel, its oversized capacity was favorable, since it would not require major interventions until 2019, when a comprehensive plan was implemented to adapt the terminal to current functional and safety specifications. Thirdly, the typology adopted, and the versatility of the layout, have allowed service improvement and expansion tasks to be done under the premise of attaching closed volumes to already existing ones in much of the site, moving the mobile partition (using the project's premise of flexibility), but maintaining the circulation layouts and the functional particularities under which the building was conceived. Although remodeling work is ongoing, a high degree of adaptability of the original structure to new uses and needs can be confirmed.

Finally, the project was a unique opportunity to show the executive capacity of the province, not only in terms of public policies, but also regarding the materialization of the building, since it turned to special reinforced concrete structures that had to cover large spans, and steel, for the roof, which revealed the degree of progress in terms of technology and construction techniques.

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Historic timber buildings restored for public purposes in Southern Chile. A critical analysis and an approach to a cultural landscape

EDIFICIOS HISTÓRICOS DE MADERA, RESTAURADOS CON FINES PÚBLICOS EN EL SUR DE CHILE. UN ANÁLISIS CRÍTICO Y UN ENFOQUE HACIA EL PAISAJE CULTURAL

EDIFÍCIOS HISTÓRICOS DE MADEIRA RESTAURADOS PARA FINS PÚBLICOS NO SUL DO CHILE. UMA ANÁLISE CRÍTICA E ABORDAGEM DE UMA PAISAGEM CULTURAL

Figura 0 Reincorporating elements. Source: Photographs by the authors and Sebastián Leichtle.

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RESUMEN

El objetivo del artículo es actualizar y acotar los argumentos de la metodología de Rehabilitación Integral del Patrimonio (RIP) para las ciudades de madera. La construcción en la ecorregión del bosque templado costero dependía de la madera nativa, lo que aun caracteriza al sur de Chile, como es el caso de la ciudad de Valdivia. No obstante, el tejido urbano de la ciudad se ve afectado por la vulnerabilidad ante los riesgos naturales y las prácticas neoliberales del mercado. Los reglamentos e instrumentos para la restauración de la arquitectura impiden la RIP debido a que se centran principalmente en las ciencias sociales, sin incorporar los aspectos técnicos arquitectónicos fundamentales ni una comprensión más amplia del contexto. A través del análisis de un conjunto de edificaciones históricas restauradas con fondos públicos, la relación entre las ciencias sociales, la ingeniería, la arquitectura y las teorías de uso público y del paisaje se hace evidente. Es necesario contar con un escenario de prácticas eficaces para asegurar una prolongación de la vida útil de estas edificaciones en relación a la gestión del patrimonio cultural. Se identificaron ocho puntos clave que conectan la historia con las condiciones materiales, que en este momento están ausentes en el servicio público chileno. Para que los procesos de restauración sean integrales, las evaluaciones deben incluir nuevas dimensiones, como la relación económica y la gestión material o tangible, así como la integración con la identidad arquitectónica original inmediata y la facilidad para asociarla culturalmente. De la armonización de estos ocho puntos con el marco normativo del patrimonio, se espera un mejoramiento de la rehabilitación integral de los edificios patrimoniales en el sur de Chile, la priorización de la conservación de su madera y la contribución pública.

Palabras claves: patrimonio cultural, vulnerabilidad, rehabilitación integral, paisaje patrimonial.

ABSTRACT

The objective of this paper is to update and summarize the arguments behind the Integrated Heritage Rehabilitation (IHR) for Wooden Cities methodology. Building in the Coastal Temperate Rainforest ecoregion relied on native species, and is still characteristic of the towns in southern Chile, including the city of Valdivia. However, the historic town's urban fabric is vulnerable to natural disasters and neoliberal market practices. Regulations and instruments for architectural restoration hinder IHR since their primary focus lies in social sciences, excluding the fundamental architectonic technical aspects, as well as a broader understanding of the context. Through an analysis of a set of historic buildings restored with public funds, the relationship between social sciences, engineering, architecture, and the theories of public use and landscape is patent. It is evident that there is a need to establish effective practices to extend the service life of buildings through cultural heritage management. Eight key points were identified, that connect history with the material conditions, which today are lacking in the Chilean Public Service. For the restoration processes to be integrated, evaluations must include new dimensions, such as the economic relationship and the material or tangible management, as well as the integration with the surrounding original architectural identity and the ease with which it can be culturally associated. From the harmonization of these eight points within the heritage regulatory framework, an improvement of the integrated rehabilitation of heritage buildings in the southern Chilean towns is expected, with priority given to timber conservation and public contribution.

Keywords: cultural heritage, vulnerability, integrated rehabilitation, heritage landscape.

RESUMO

O objetivo do artigo é atualizar e aprimorar os argumentos da metodologia da Reabilitação Integrada do Patrimônio (RIP) para Cidades de Madeira. A construção na ecorregião da Floresta Temperada Costeira era dependente da madeira nativa, que ainda caracteriza o sul do Chile, como em Valdivia. No entanto, o tecido urbano da cidade é afetado pela vulnerabilidade dos riscos naturais e das práticas neoliberais do mercado. Os regulamentos e instrumentos para a restauração da arquitetura impedem a RIP porque se concentram principalmente nas ciências sociais sem incorporar aspectos técnicos arquitetônicos fundamentais, bem como uma compreensão mais ampla do contexto. Ao analisar um conjunto de edifícios históricos restaurados com fundos públicos, torna-se evidente a relação entre ciência social, engenharia, arquitetura e teorias de uso público e paisagem. Um cenário de práticas eficazes é necessário para assegurar uma extensão da vida útil dos edifícios em relação à gestão do patrimônio cultural. Foram identificados oito pontos-chave que conectam a história com as condições materiais que estão ausentes no serviço público chileno. Para que os processos de restauração sejam abrangentes, as avaliações devem incluir novas dimensões, tais como relação econômica e gestão material ou tangível, bem como integração com a identidade arquitetônica original imediata e facilidade de associação cultural. A harmonização desses oito pontos com o marco normativo do patrimônio deve melhorar a reabilitação integral dos edifícios patrimoniais no sul do Chile, priorizando a conservação de sua madeira e a contribuição pública.

Palavras-Chave: patrimônio cultural, vulnerabilidade, reabilitação integrada, paisagem patrimonial.

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INTRODUCTION

Southern Chile, in particular the Valdivian region, is biogeographically covered by a Coastal Temperate Rainforest ecoregion, one of the few in its type on the planet, as well as one of the world's most renowned earthquake zones. These two natural environmental conditions define historic portions of cities, towns, and whole villages. Their buildings, whether in clusters or detached, in these so-called Wooden Cities (Saelzer et al., 2019 a), were dependent on native timber from the second half of the 19th century to the second half of the 20th century, and are now becoming valued culturally, albeit only partially. In some aspects, this characterization was an indirect valorization of the cultural urban landscape and the changes in land and architectural structures after the 1960 Great Earthquake. After increased globalization in the 1980s, the buildings and town fabric were affected by neoliberal market practices with properties and the Communal Regulatory Plans (PRC, in Spanish)- (Sabatini, 2000; Zumelzu et al., 2016). Part of the consequences was the higher value given to land over the value of its buildings. The fabric of the towns was neglected, the timber architecture was considerably affected, and aesthetics were lost, which accelerated conditions of obsolescence, demolitions, and fires (Araya & Saelzer, 2017; PNUD-MINVU, 2021).

Problematic past, and current progress

Inhabitants, along with private and non-State institutions have become active in recognizing cultural attributes in the narrative activity -oral, written, photography, cartography, and protected historic built areas-, which has made the cities and towns developed between ca.1870 and 1960 a reference for a new type of cultural and natural environment (Guarda, 1969; Rojas, 1994; Tillería & Vela, 2017). Visually comparing the past and present provides evidence of great changes: contrasts between architecture achieved through civilized or bourgeois housing and infrastructure typologies (Saelzer & Urbina, 2015) **1**, the poverty recorded for workers living conditions (Almonacid, 2000; Bintrup, 2016), and the ecological environment of the past city (Otero, 2006; Saelzer, 2021).

When inhabitants reinforced the population of the Upper Frontier -the old Spanish Provinces of Valdivia and Chiloé under the new regime, they brought territorial and economic expansion (Salazar & Pinto, 2014), new villages, and a new urban shape and districts for the few previous towns**2** emerged in Southern Chile. Although with this, the native wood species felled for local building, the deforestation for agricultural purposes, and native forest exploitation were not managed. However, they changed the territory and the economy of buildings in the most affluent districts, the poorer ones, and rural settlements.

The existence of native wood species in a social scope of timber buildings needs attention beyond heritage protection figures that

1 A comparison can be established between reports about Valdivia. The most well-known are Aranda, Llanera, and Tejeda in 1921, Life Magazine in 1942, and the work of the architect and historian Gabriel Guarda.

2 Valdivia, Osorno, Ancud, Castro.

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provide the legal framework because wooden architecture has a potential cultural heritage that affects a larger portion of the population. Nowadays, this context challenges regional restoration practices for timber buildings to overcome the typology limits being preferentially evaluated, which affects the identification of the cultural landscape and public policies.

A collection of historic houses, once large family houses, at least most of them, owned by the Universidad Austral de Chile (UACh) in the city of Valdivia -the UACh Collection or Collection- (Figure 1), most formally protected by public institutional heritage qualifications, provide the elements to analyze restoration contexts, and to identify gaps to fulfill a major task: the characterization of Wooden Cities using the proposed Integrated Heritage Rehabilitation (IHR) method (Saelzer et al, 2018 and 2019 a, 2019 b). The previous research stages of this empirical work -management and competition for funds, project, and building- and its theoretical approach, have been done at the Built Heritage and Context Association (Patrimonio Edificado y Contexto -PEC-). The proposed concepts, analysis, and results have already been published or presented, in conferences (presentations and papers) and building inauguration editions; material that will be referenced constantly in the paper.

From the collection, nine projects comprising medium size buildings were completed: rescuing, rehabilitating, restoring, and partially restoring them. This experience includes an additional five completed projects and four projects in the study stage in two administrative Regions -Los Ríos and Los Lagos-. The two buildings that house the UACh President's office and the central UACh administration (Casa Central UACh) were chosen for this case study.

While addressing restoration practices, it became evident that there is a relationship between social sciences, engineering, architectural, conservation, and cultural landscape theories to integrally manage a set of heritage practices. Among the wooden architecture, found in small towns and city districts, that still remains from ca. 1870-1960, only a small portion constitutes cultural heritage from the State institutional perspective, which underlies a weak understanding of the process of building towns in southern Chile. However, citizens, their public institutions, and the research results provide alternative scrutiny and a broader and deeper experience of the core of cultural heritage management and its impact on the quality of life. The proposed Integrated Heritage Rehabilitation (IHR) method, in each urban or rural settlement, focuses on a set of disciplinary practices complemented by an understanding of a historical sociocultural identity dynamic to be applied as part of the quality of life enhancement.

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METHODOLOGY AND OBJECTIVE

The interdisciplinary approach to the previously described issues challenges cultural-heritage methodologies on restoration practices and territorial planning. In previous publications, it was established that the regulatory framework impedes integrality. The objective here is to update and mark out the arguments of the initial seven key points and proceed to an eighth key point. The topics of the previous seven points are (1) Placement conditions; (2) Material selection; (3) The incorporation of architectural transformations due to natural hazards; (4) Rehabilitation standards; (5) Restoration as a public role; (6) Sustainable planning; (7) Land diversity and environment; (8) An approach to a notion of landscape. The IHR's cultural, legal, material-technical, and context-landscape framework, becomes the groundwork for a hybrid methodology oriented to the cultural heritage problem, focusing on southern Chile, and through research, it seeks to achieve interdependence in the cultural and heritage landscape potential.

Seven key variables identified for technical guidelines throughout the IHR were reviewed from the previous work of the authors (Saelzer et al., 2019 b), to conclude on the next key point for the link between heritage and landscape. For the geographer Florencio Zoido Naranjo, the notion of landscape barely considered views and practices that culminate today with the attribution of broad social values (quality of life and cultural identity) (Zoido Naranjo, 2012). The first seven key points were identified empirically in the project management, within the local -The agency of the Ministry of Housing and Urbanism, University and Municipality- and national -Monument Council- institutions. The eighth key point was identified during the discussion of values considering the cultural landscape and territorial planning approaches (Zoido Naranjo & Venegas, 2003).

Using these key variables, the authors were able to characterize the management of heritage rehabilitation processes to integrate factors, connecting history with the geographic contexts, and the architectural material of settlement diversity. The eighth key point is a discussion proposal to provide concepts about the formula and practice of IHR in the regional public and private sector, and in the international context, such as in the International Committee on Historic Towns and Villages (CIVVIH-ICOMOS), and on the preservation of historic timber buildings at the UNESCO Committee, and in the academic and multilateral cooperation hybrid context with the formula of Heritage Landscape.

Empirical And Theoretical Heritage Rehabilitation Context

Chile experiences around six hundred and eighty-four (684) earthquakes annually **3**. The 9.5 Richter quake of May 22nd, 1960, that hit off southern Chile, is the largest ever instrumentally recorded earthquake. The Valdivia river basin and the surrounding urban area

3 earthquaketrack.com.

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were the hardest hit. Buildings were destroyed and the geography was markedly changed, especially in some sectors of the city, as new bodies of water were added.

The trauma from the destruction and the impact on the Gross Geographic Product was enormous. However, the greatest damage to buildings in Valdivia was caused by ground failures, mostly liquefaction, and flooding in areas that both the Spanish colonists over 300 years (1552-1820) and the ancient Huilliche native population had avoided. Unfortunately, it had been settled by industrial and trade infrastructure from new European immigrants in the 19th and 20th centuries. The evidence of a slow recovery after 60 years, without a final reconstruction plan, particularly in the city of Valdivia **4**, outlines imperatives to analyze and check the heritage architecture restoration for the group of buildings built before 1960. As it was previously reported, a conceptual and physical intervention of fragile variable materials has not been carried out as part of the heritage regulatory framework (Saelzer et al, 2019 a). 'In terms of policies, as it was quoted, "except for volume conservation guidelines, in the Chilean context, there are no specific regulations for interventions in architectural heritage" (Torres, 2014).

Public programs

A heritage restoration program of public and historical buildings in Chile was reinforced at the national level in 2007 by a Heritage Enhancement Program (Programa Puesta en Valor del Patrimonio-PPVP)-. As a tool for the Regional Development Undersecretary (Subsecretaría Regional de Desarrollo - SUBDERE)-, PPVP sought funding at a regional geopolitical level, FNDR**5**. It also provided the Regional Heritage Diagnoses (MOP, 2010) on historical buildings in the Los Ríos administrative region. This general diagnosis has been set as the official guideline in the Region, one of the few achieved in the country, but focuses on the approach within the limits of each building, and not on the relationship with a regional concept.

As the Ministry of Public Works (Ministerio de Obras Públicas - MOP) was strengthened by becoming the main technical unit of the PPVP, national monuments and large-scale heritage projects benefitted. The Ministry of Housing and Urban Planning (Ministerio de Vivienda y Urbanismo -MINVU) continued its role with Historic Preservation Properties (ICH, in Spanish), one of three categories of officially protected buildings. This protection figure includes medium and small-scale buildings, like most of the UACh Collection, but does not have a financing program for restoration or upkeep.

The Ministry of Culture, Arts and Heritage –(Ministerio de las Culturas, Artes y el Patrimonio -MINCAP) started two of its own heritage financing programs**6** after the earthquake that affected central

4 See the final report at: Foglie, David P. 1962. Valdivia City Planning. The Valdivia City Plan. U.S A.I.D., Illustrious City of Valdivia and Ministry of Public Works, Urban Planning section.

5 "Fondo Nacional de Desarrollo Regional" (National Regional Development Fund).

6 "Programa de Infraestructura Cultural" and "Fondo del Patrimonio": "Cultural Infrastructure Program" and "Heritage Fund".

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Chile in 2010. Although that earthquake did not destroy historical buildings in the southern regions, MINCAP considered a specific budget, coherent with the outstanding consequences of the 1960 earthquake and some of the characteristics of timber buildings, as has been proven with the UACh Collection. The Collection found, in those national programs, the first answers to the needs of its projects. At a MINCAP regional level (when it was a Council of State and not yet a Ministry or Secretary of State), projects were financed shortly after 2010, to correct some deficiencies in two buildings. Its importance was the opportunity to have drawings to characterize the buildings and consider them as a series, and not as isolated units.

Empiric field

In 2014, the national terms and references, and sources of funding became tools applied annually. From that continuous use of the program, valuable data were obtained on the socio-cultural arguments linked to materialization processes and their reception by the citizens. Considering that the paper is focused on updating and marking out arguments for the IHR, the documentation held by the PEC and the editions for opening restored buildings became primary sources: Casa Central -the case study - (Saelzer, 2019 c) and a next project, also part of the Collection (Saelzer, 2019 d). The methodology to organize the empirical field theoretically is the Integrated Heritage Rehabilitation (IHR) methodology.

A theoretical approach to concepts

The empirical process, followed by a conceptual theoretical one made the importance of the scale to approach timber buildings considering specific wood species and the specific forest as a whole, evident, as well as a scale to address the importance of a heritage restoration service-life framework, and one for the territorial concept and cultural and local landscape (Capel, 2016). Up to the third quarter of the 20th century, timber buildings used wood species that are already nationally protected, in National Parks and reserves, or need special management to be felled. However, they have different vulnerabilities to climate and biochemical conditions when used as architectural components (Prieto et al., 2021). Fuzzy buildings service life methodology, a pioneer in Chile's southern cities and towns (Prieto et al, 2019), and the heritage landscape methodology discussed for the small and medium towns scale (Silva, 2014) have provided suitable tools to continue focusing on the empiric field on research and lead the discussion toward specific territorial planning issues.

The orientation toward social sciences downplays the architectural, technical, and building factors. They have even been a direct source of social identity. On the other hand, the arguments

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based on social science contents continually play a crucial role in the criteria for the management plan evaluation (MINCAP, 2017, p.5, 13, 18). Although MINCAP programs are oriented towards historiography, anthropology, and territorial identity, according to the heritage regulatory framework and its legal focus (MINEDUC-CMN, 2011, p.6-8)**7**, the soil conditions and old building materials (bricks, stamped metal, and timber from the ecoregion forests) became part of the issue for the Collection's projects. The lack of a complete and in-depth procedure on cultural heritage, its consequences regarding obsolescence for working-class houses, and people's expectations were detected during the central areas' regeneration project in Valdivia, where most of the UACh Collection is located (PNUD-MINVU, 2021). This general scenario, combined with the material compositions and the technical capabilities that affect historic and cultural dimensions in restoration processes, has been overlooked in the heritage regulatory frameworks in Chile.

Onsite evidence, particularly at a case study level, points to the fact that aspects such as the vertical load of facades, timber from native species, the role of frames, and the environment of building locations, are crucial to citizen's acceptance of architectural heritage, as noted previously by several authors that have worked on cultural heritage in the south of Chile (Rojas, 1994; Almonacid & Medina, 2015). Furthermore, the extent of these impacts and their divergence from local trends, where wooden cities are attempting to rescue local values, is considered suspiciously by most actors in the real-estate sector. But territorial and perceptive scales of the "heritage landscape" theory became crucial for contextual analysis in the real estate market, based on what inhabitants and local institutions communicate, and (even) to follow that "in-material heritage (of people, communities) that tends to be incarnated in certain materials" (Silva & Fernández, 2017: 135, 181-184).

Conceptual Foundation For Timber Building Rehabilitation Practices.

The concept of heritage which initially embodied landmark historic buildings has progressively expanded within society to include other types of buildings. Among these, many will conceivably be less aesthetically appealing but can be of similar or greater value in terms of what they tell us about society (Bianca, 2010; SEMO-WHC, 2018; Nyseth & Sognnaes, 2012). Considering that people create values as a society -aesthetic, ethical, etc.-, any approach that takes the inhabitant as something separated from its context is discarded (Ojeda Rivera, 2013). Likewise, the rehabilitation process is not considered isolated from stylistic restoration practices, such as the Western European perspective of the 19th century and the beginning of the 20th century (Niglio,

7 National Monuments Law - N°17.288, 1970 and 2011 version.

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2009; Beasley, 2017). Following this approach, the process for heritage rehabilitation methodologies has paid greater attention to the context of buildings, making people and their daily environment an integral part of their urban environment.

The convergence to the immediate vicinity of "the successive historic present" in the building and the "intuitive unity" became an issue after World War II destructions of monuments and cities (Cesare Brandi, 2002), shown by small town initiatives, like Wismar and Stralsund in Baltic Germany (Huschner et al., 2022). The discussion incorporated the ease with which human surroundings -cultural, urban, and rural- can be associated and viewed (Sirisrisak, 2009; SEMO-WHC, 2018).

In Latin America, a Post Disaster Needs Assessment (PDNA), a damage analysis methodology (Jeggle & Boggero, 2018), was used for the evaluations and restoration guidelines in Manta, Ecuador, after the 2016 7.8° R Mw earthquake, that hit the Manabí Province. The UNESCO´s PDNA**8** methodology advocates for the integration of technical capacities and transferal to heritage restoration and management. It includes a reflective analysis of the type of building involved, the building materials used for construction, and the original layout of the spaces within it. The analysis produced a view on the legal framework requirements, management, and understanding of building failures, supported by correlated holistic programs (see Senplades, 2016).

For this research, it was helpful to compare the case study and its environment with other timber architecture case studies and their town environment: Galveston, Texas (Beasley, 2017). Eskjö in Sweden, and Gorodets in Russia (Ivanov, 2015). Zúñiga in central Chile after the 2010 earthquake**9** (Hernández, 2016) is an initiative in a different kind of town typology, with its impact on the Chilean context, and its institutions.

Settlements grew in Southern Chile, using timber of a common biogeographic eco-region with slight industrial inputs, shaping their contemporary towns, formulating a post-Hispanic-colonial nature, and emphasizing new architectural references (Prado et al., 2011; Saelzer & Urbina, 2015; Tillería & Vela, 2017). In the context of a new Republic of Chile regime, the ideas of progress -development-, were challenged after a three-century-long Mapuche frontier at the end of the 19th century, and the further reformulation of this remote territory or Upper Frontier (Urbina, 2008). In terms of Human Geography used by critical historic studies, southern Chile produced a settlement method (Bengoa, 2015: 168; Larroucau, 2017: 9), where timber provided most of the technical solutions and shapes (Guarda, 1995; Otero, 2006) from a period between 1845 when a Selective

8 Post Disaster Needs Assessment.

9 https://www.elrancaguino.cl/2018/05/23/consejo-de-monumentos-nacionales-premia-restauracion-patrimonial-realizada-en-zuniga/.

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Colonization Law led to German immigration, and a decline under the neoliberal economic model instituted by the National Constitution of 1980.

With the emergence of modernization, southern Chile became an extended historical, architectural, and urban experience, but also an experience of risks related to major natural events followed by disasters in urban contexts. However, despite the greater necessity some 60 years ago, heritage restoration processes started in Southern Chile barely a decade ago. Even so, since then building materials lack preliminary evaluations, and processes are far from being integrated and are left for individual interpretations during the restoration process as has been empirically proved (Saelzer et.al., 2018 and 2019 b).

Considering the real estate domains of urban area neoliberal management, the protected historical or "Typical Zones" (TZ)**10** in Valdivia represent a low proportion, with just 1.11% of its area, though timber prevalence in the city can cover up to 76.9.% and 80.4%, considering the 2021 and 1980 city plans as references, a proportion that is repeated in other towns and rural villages where PEC has researched in Southern Chile (Saelzer et al., 2022). Even so, the amount of area restored in the UACh Collection has led the University to make a comparative analysis with newly built areas to explore relevant aspects of the "economy of culture" coherent with spending (Alonso Hierro & Fernández, 2013). If the ratio incorporates effective land use, the service life of buildings, and cost management using the Collection's projects, as MINVU 2020 recognized in its own programs designed centrally in Santiago, they became inoperative in the older timber-built neighborhood districts (Saelzer, 2019 d: 39, 54). Several Pilot Plans had to be organized, one of them located in Valdivia to get a diagnosis applied to Southern Chilean settlement characteristics (MINVU, 2006), that methodologically continues as Heritage Analysis undertaken by UACh and PEC in the interdisciplinary team within the Central Areas Regeneration - (RAC, in Spanish) project in Valdivia**11**, a PNUD and MINVU 2020-2021 project.

The tenet of the legal framework for the super-structure and its supporting infrastructure, particularly on the seismic amplification dynamic (Alvarado et. al., 2019), is missing in the regulations used for heritage restorations and rehabilitations: National Monuments Law (Ley de Monumentos Nacionales - LMN)- and the General Law for Urban Planning and Construction (Ley General de Urbanismo y Construcciones - LGUC)-. In fact, the guidelines that can be taken from the LMN and LGUC, although they lack integrated heritage rehabilitation, can be understood for archeological, historical, and stylistic

10 A cultural heritage protection figure provided by the National Monuments Law for the protection of an urban or rural area.

11 UACh – PNUD and MINVU contractual relationship.

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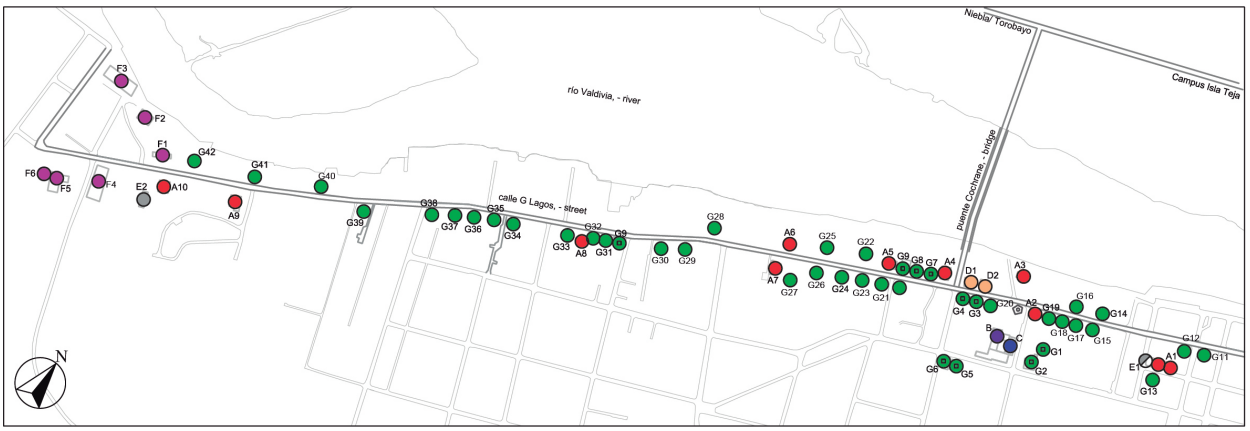

Tipical Zones / A: ICH / B y C: MH / G: other old buildings of historical value / A, B, F UACh Collection / A1 Casa Central, B ex Convento de S. Francisco.
Zona Típica/ A: ICH / B y C: MH / G: otras edificaciones de valor histórico / A, B, F Colección UACh / A1 Casa Central, B ex Convento de S. Francisco.

Figure 1. The UACh Collection in and around the Typical Zone areas, Valdivia. Source: Prepared by Gerardo Saelzer Canouet at: Casa Ávila Risco, former Leiva Mella home, MINCAP-UACH, 2019, p.77.

models of restoration, but not in broader scientific arguments and technical guidelines. Under these policies, it is difficult to understand an objective scope including specifications for conservation and restoration of architectural projects and interventions on the lifespan of a building (Prieto et. al. 2019).

Pre-Assessment Off-Site And Review At The Building Site.

As the research focused primarily on a desk review to understand restoration requirements, environmental problems, and material availability for historical timber buildings in Southern Chile, the experience during the physical intervention of the buildings became crucial. The combination of the case study within a larger number of similar projects and the monitoring work onsite, made it possible to understand and register five variables:

[1] Natural long-term degradation of the materials is the most critical factor, due to exposure to the climate environment and short-term dynamic actions- such as vibrations or impact loads which reduce the ability of building structures to retain their original properties and serviceability (Kliukas, Kačianauskas & Jaras, 2008). [2] Foundations, timber, and composition of façades as the most fragile variables in Valdivia's river basin area. [3] The organization of funding for restoration, its limits, and results within the legal frameworks and usual market dynamics and pressures on restoration processes. [4] The evolution of historical facts to socio-cultural facts that could be diachronically treated and organized around a specific hybrid landscape methodology, having the building as a strategic piece of the environment (Silva & Fernández, 2017: 132-136). [5] The city districts, towns, and villages that fall within the Wooden Cities characterization proposal, as variables that can be connected to territorial dimensions and its planning (PNUD-MINVU, 2021; Saelzer, 2019 d).

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Primary data was obtained through direct interviews with the heads of institutions that have been identified as stakeholders in the implementation of heritage restoration programs. The counterpart institutions were the Regional Secretary of MOP, MINVU, MINCAP, and the Los Ríos regional branch of the National Heritage Council -Consejo de Monumentos Nacionales (CMN)- to triangulate and facilitate the validity, consistency, and comprehensiveness of the data while ensuring a high level of error minimization. The data inputting, processing and analysis involve the use of Computer-Aided Spatial-Analysis design tools and software such as AutoCAD (2019), ArcGIS (version 10.5), Adobe Illustrator (CS6), and Adobe Photoshop (CS6). The results and findings were thoroughly discussed using maps, parametric, and non-parametric techniques where applicable.

Uach Casa Central In The Context Of The Uach Collection. Experimenting Architectural Restoration In Valdivia

CASE STUDY

The UACh Casa Central is located in the historic city center of Valdivia, which has been subjected periodically to natural hazards. It was damaged by fire in 1859 and 1909, hit by the 1837 earthquake, and again in 1960 (9.5°R) and 2010 (6.5°R), as well as floods in 1922 and 1960 (Figure 2). The 9.5°R earthquake obliged a redefinition of materials and structural strategies for new buildings, but monuments and historical buildings were not included in the planning. This is evident in the different documents produced after the event. Subsequently, the 1850-1960 architecture was left to its own fate; without financing and coordinated restoration guidance. With anthropic risks (e.g. Casa Werkmeister burnt down in 1985, and the plot is still vacant, G7 in Figure 1) and continued seismic activity (6.5°R in 2010), the extreme vulnerability of architectural cultural heritage in Valdivia is clear. For instance, the basements of some formally protected houses are still exposed to flooding, affecting the whole building, but without technical and financial support programs to seek solutions.

Before committing to the restoration of the UACh Casa Central, an unprotected building based on the MINCAP program formulated after the 2010 earthquake, the initiative initially considered a formally protected house: Casa Ehrenfeld –Music Conservatory, comprising three timber structured and finished floors, and metal coating (A6 in Figure 1). In 2014, this house became the first project of the UACh Collection. Although the project focused on the basement, ground, and upper floors, the evaluation finally required secondary funding in 2019 to correct the most urgent aspects of the masonry structured basement. Even though the initial focus in both institutions (UACh and MINCAP) moved from general interest to a specific problem after five years, both instances ultimately reinforced important parts of the service life of the house. The same partial restoration method was introduced to Casa Central in 2017-2019 as a two-stage project.

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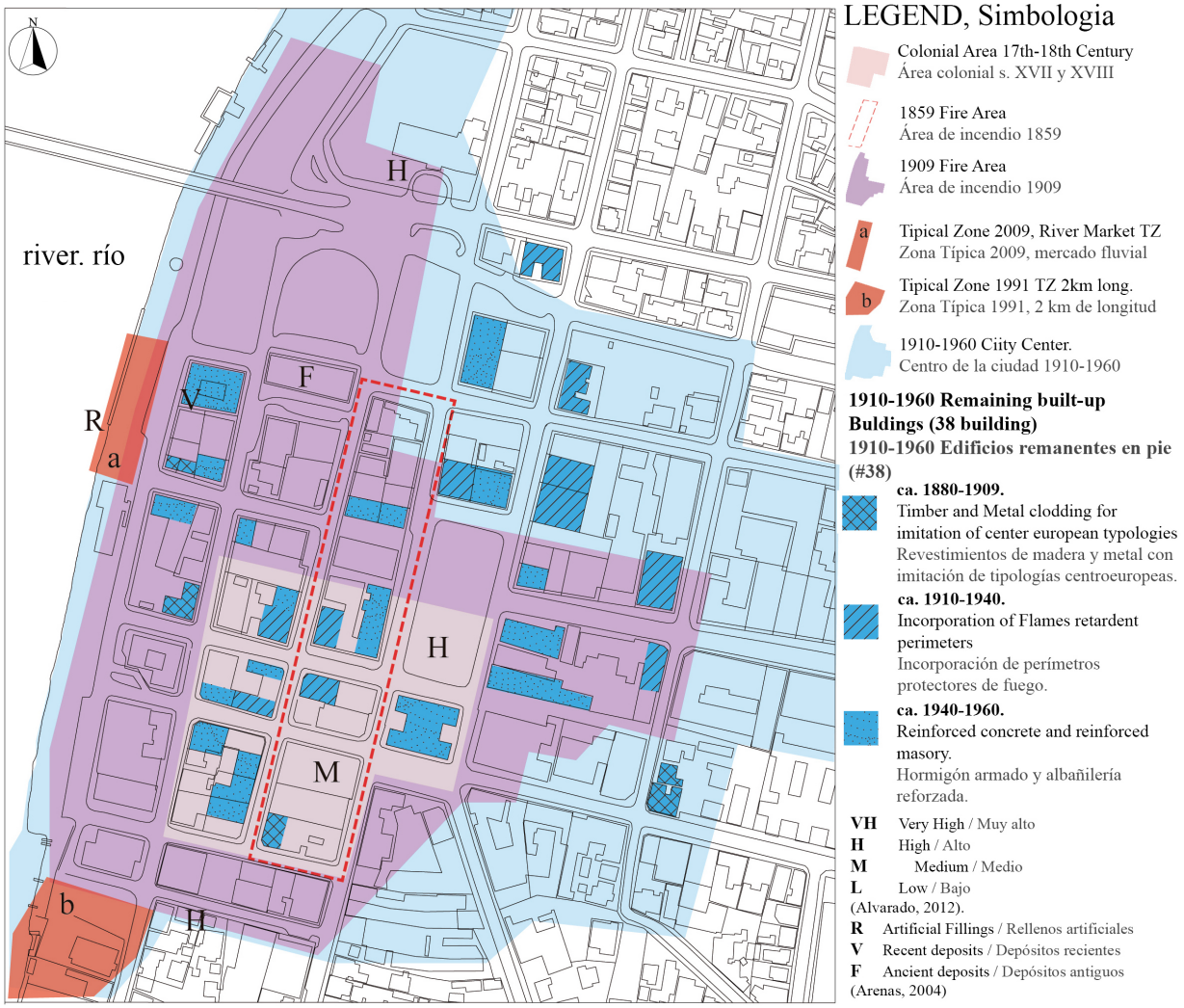

Figure 2. Historical city center of Valdivia and land morphology. Source: Preparation by the author

The Management of Heritage Rehabilitation Processes in Valdivia.

Valdivia can be stratified into six periods of experimental building strategies in its historical town center. Morphological timelines of building practices (Kelly, 2000) from 1850-1960 produces the strongest timber building practice and the initial adoption of the reinforced concrete strategy. As reported by PEC: timber buildings characterized by wooden cladding (1850-1859), metallic cladding (1860-1909), and later coated façade cladding (1910-1960) have been identified[12], as well as timber buildings protected by perimeter masonry (1910-1960)[13], but less analyzed. The latter (1910-1960) can also be divided into two main periods. The 1910-ca.1930 period presents two typologies (A1, A2, Figure 4) of timber platform mixed with diverse masonry elements for building perimeters[14], and ca.1930-1960, two other types (B1, B2, Figure 4) -masonry perimeter and slabs on timber parts, were also identified. The case study -UACh Casa Central (ca. 1910-1920), is 1,700 m^2, is

12 Casa Ehrenfeld, 1919, restoration 2013-2014. Casa Luis Oyarzún, 1886, restoration 2016-2017.

13 Casas Reccius and Anwandter, 1910, Casa Central UACh, restoration 2017-2018.

14 San Francisco Convent, 1929, habilitation -enabling some use- 2019, before restoration.

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formed by two houses within what were originally three family houses, and is labeled type B2. Another important B2 building is the former -San Francisco Convent (1929), home to the Regional UACh Outreach Programs (Figure 3). This building is also located on the plateau, on one of its edges, where the city was founded in 1592, which is still its center.

As an introduction before the sub-sections in chapter 4.2, the following table identifies the buildings included in the UACh Collection. The table shows the projects that became case studies, the year that each project was carried out, their size, and the funding sources. The goals are to pursue the recovery of the historical aspects of each building valued by the public cultural heritage institutions and to recover and encourage the use of the buildings (Table 1).

Table 1. The UACh Collection buildings that used MINCAP's programs. Source: Preparation by the author

Projects	Years	Origin of funds.	Total building area under restoration	Purpose
Casa Ehrenfeld (1st stage of 3)	2014-15	MINCAP national 60%, UACh	1,700 m2	Music Conservatory
Casa Luis Oyarzún	2011 2016-17	MINCAP regional, 80%. MINCAP national 60%, UACh (2016-2017)	800 m2	Direction of university regional relations.
Casa Cau-Cau / Martin Pérez (1st stage)	2017-18	UACh	700 m2	Wetland Protection Center.
Casa Central (casas Reccius and Holzapfel) (1st stage of 2)	2017-18	MINCAP national 50%, UACh	1,800 m2	President's office, central administration, and public rooms.
Casa Central (casas Reccius and Holzapfel) (2nd stage)	2018-19	MINCAP 50%, UACh	1,800 m2	President's office, central administration, and public rooms.
San Francisco Convent (1st of several stages)	2018-19	MINCAP (project), UACh (basic rehabilitation)	4,000 m2	University regional outreach programs.
Casa Commentz Hoffmann (1st stage of 2)	2012 2018	MINCAP regional 80%. UACh 100% (2018).	900 m2	Dean's office and administration, Faculty of Architecture.
Casa Cau-Cau / Martin Pérez (basement) (2nd stage)	2019-20	MINCAP 90%	150 m2	Visitor center.
Casa Ávila Risco	2019-20	MINCAP 60%, UACh	300 m2	Occupational therapy rehabilitation center.
Casa Ehrenfeld (2nd stage)	2020-21	MINCAP 60%, UACh	500 m2	Music Conservatory.
Casa von Stilfried (façades) (1st stage)	2021-22	MINCAP 70%, UACh	1,200 m2	Center for further education.

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Figure 3. Layout of the three original houses (a Bartsch, b Reccius, c Holzapfel), b and c having been converted into UACh Casa Central (President's Office and Administration offices) UACh. Source: Preparation by the author.

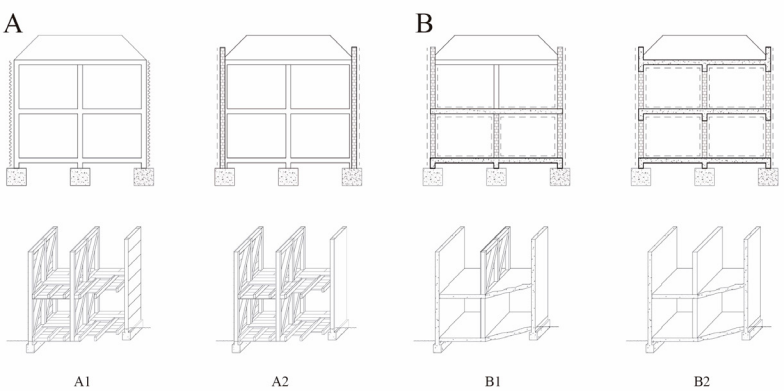

Figure 4. Structural layout of the coated facades of the four typologies - 1850-1960. Source: Preparation by the author.

Interdependency factors regarding the historiographic background and structural typology of buildings.

The planning and the work at the case study building site was an opportunity to follow up on the achievement of the goals by the owner (UACh), and the source of funding (MINCAP and UACh). As

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was happening at the other projects, the MINCAP financing support was unable to cover the entire restoration in one go, but it motivated a chain of flexible steps toward improving the processes and, finally, the buildings. The focus on historical information and a management plan to be used at the renovated building was complemented by contributions from the owner towards solving priorities that their administration was aware of. In the first projects, it became an issue in UACh and MINCAP, about the extent to which services that were not part of the original building could use the funding source (e.g. electricity, heating, etc.).

While the financing from MINCAP was not able to cover a complete structural restoration, such as no-combustible heating, electricity reinforcement, and fire-retardant networks, it became a complement that could be planned in advance at the Casa Central, based on the savings compared to PPVP procedures and two MINCAP programs. The experience of stakeholders regarding, historical architecture needs and the different approaches to finance infrastructure strategies was the basis for the second program, for cultural infrastructure**15**. Around the same time, three historical houses located far from TZs provided the data to prepare the second project at Casa Ehrenfeld, this time focused on its basement, in line with the tenets of the second MINCAP program: the repairing of Casa Hettich (2017) –currently being used as the Municipal Library, the conditioning of Casa Kunstmann giving priority to its basement (2020-2021) (Fundación Plantae), and Casa Cau-Cau (2017-2018) –Wetlands Protection Center and the visitor center. Preliminary frameworks were also specially developed to finance project studies -such as the former-San Francisco Convent (2018-2019) (B in Figure 1) that could be suitable for the cases like the former Casa Werkmeister, and its remaining plot.

Interdependency factors regarding the behavior of buildings in a city center landmark.

In Chile, the inhabitants of Typical Zones (TZ) under LMN and CMN administration as well as Historical Conservancy Zones (Zonas de Conservación Histórica - ZCH)- under local Communal Regulatory Plan administration, have systematically reported the inability to follow heritage protection rules with their own property. These protected areas are today part of the town or city center. According to a local analysis made by Jeri (2015) and historic city center degradation, as presented by Zumelzu et al. (2016), this has an impact on people's identity, where the social identity gets diffuse and relevant goals to be achieved, which get lost in the dominant market conditions.

The consequences are a fragmented visual and social urban fabric that affects the pursuit of integrating heritage into development concepts and objectives (Torres 2014; Jeri 2015; Valera, 1996; Glasinovic 2005). The lack of results, in protection and practical instruments, under national heritage regulations, was announced in the environmental studies for the Cochrane Bridge intersection in the TZ (CFC-MOP-SERVIU, 2017), which coincided

15 "Cultural Infrastructure Fund" Program.

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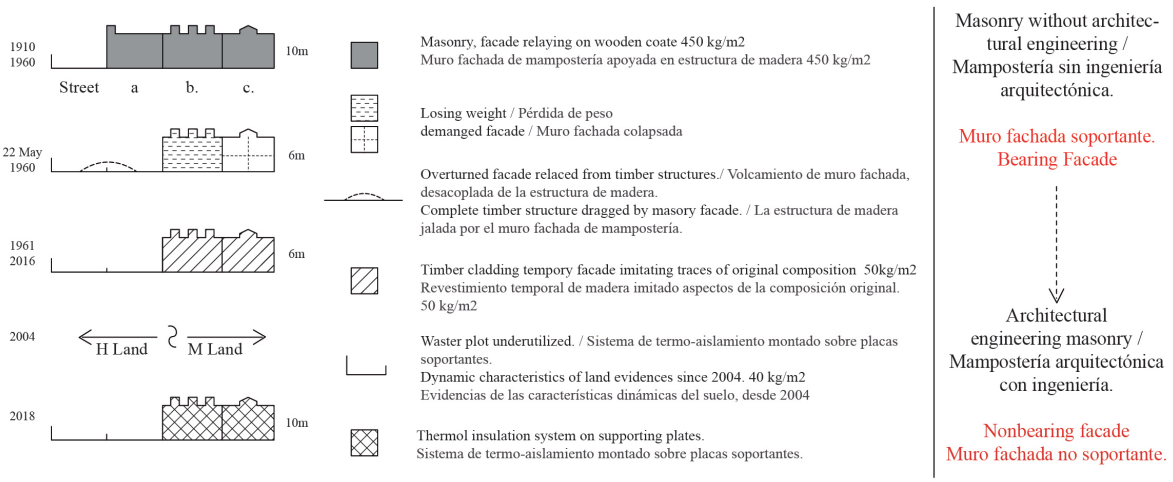
Specific Study Case: A, "Casa Central" (a. Bartsch, b. Reccius, c. Holzapfel).
Caso de estudio específico: A, "Casa Central" (a. Bartsch, b. Reccius, c. Holzapfel).



Vertical load behavior: three masonry façades joint to timber nucleus structure.
Comportamiento de la carga vertical :tres muros fachadas anclados al núcleo en madera de la estructura.

Figure 5. Vertical load behavior distribution, type A2: Casa Central façade joints to the wooden central structural core. Source: Preparation by the author

with the PEC diagnosed in other TZs and ZCH proposals in Southern Chile (Saelzer et. al., 2018)**16**. A recent reduction of the first MINCAP program in 2019 to the restoration of only formally protected buildings, can focus that gap, but it is having negative effects on initiatives like the UACh Collection, specifically in situations like the Casa Central, where the model can represent this regionally, and its contribution to society and urban environment.

If restoration is a relevant preservation event, the culture, legal framework, and technological practical approaches are interdependent factors in determining the physical recovery of buildings, their survival over time, and the improvement of life conditions, aspects that highlighted the need for the IHR. Technical solutions to 1960s or older buildings, some with long-lasting temporary facades**17**, that represent cultural value to Southern Chile, are not entirely comparable on rational bases to provide operations that are capable of restoring them, and handling the impact on their urban context**18** (Figure 2, Figure 4, Figure 5). Therefore, cultural variables and planning that together incorporate the materialization and its technologies, approach the overall vulnerability present in heritage buildings and sites, as can be seen in examples in Latin America and overseas (Maldonado et al., 2019; Nuere, 2020; Salcedo, 2017; Huschner et al., 2022).

Focusing back on the case study, Casa Central, the building became a visual expression to be achieved through the following physical processes: when amplifying land vibrations, the façade behaved on a different frequency to the timber frame in the three houses, a, b, and c (Figure 5). In case ["a"], the wall breaks off, bringing down the

16 Valdivia (at Cochrane bridge project including Casas Lopetegui, Da Bove, and Von Stillfried) 2017-2018, La Unión (from Mayor's consultants at Municipality) 2018, Puerto Octay (through PEC consultancy) 2017-2018, Frutillar (a diagnosis by the director of Municipal Infrastructure) 2018.

17 Casas Reccius and Holzapfel (current UACh Casa Central), 1910, damaged in 1960, temporary facades 1960-2016, restored in 2017-2018.

18 Former San Francisco Convent, 1929, habilitation 2019, further restoration under UACh planning.

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entire frame and the total structure collapsed and falls; in case ["b"], the anchoring resists. In case ["c"], when the wall breaks off and falls, the total structure is saved. The restoration strategy was to lower the seismic mass for both saved cases, "a" and "b", to 10% and maintain the urban function of the original architecture with respect to the street, following an Objective Restoration Methodology (González, 1999) to keep the historical model and conceptual features of the building, in the oldest, but unprotected, city center area. Houses "b" and "c" show that the structured timber architecture behaved well for an earthquake of 9.5 R, since the destruction structurally affected non-supporting elements (the facades), although it did damage the urban and economic development. House "a" should have a compromised masonry façade as the structurally supporting element for the internal timber frame (Figure 4, Figure 5). The result of these physical processes is a space to be used intensively by citizens and civic organizations combined with the university community. The project lacks aspects that could not be achieved, which correspond to the constant capability to use original wood species and carpentry, and technical analysis to provide a medium- and long-term plan for upkeep and further restoration.

Interdependency of factors regarding public finance and restoration operations.

While buildings from the 19th and part of the 20th century in Southern Chile share the same origin, many of them are left behind because of the centralized SUBDERE investment classifications and guidelines. Its PPVP multilateral funding source**19** for restoration, on average, faces a five-year wait, while MINCAP is more reliable regarding start dates, which are normally a year later, somewhat more useful for small and medium-sized buildings (Saelzer et.al, 2019 a). As a result of a flexible operation, MINCAP programs have made the management compatible with a variety of economic backgrounds, as PEC reported to UACh**20**. In addition, the yearly application method of the MINCAP program helps to compete for additional funding that enables extending projects into several continuous stages.

The method has been proved not only in 2014 and 2019 at the Casa Ehrenfeld – Music Conservatory project, and in 2017 and 2018 at Casa Central, but also at the Club Aleman Theater in three phases (2018, 2020, and 2022) in the town of La Unión. Casa Central and the theatre are sites that are unprotected by heritage instruments; therefore, it is important to highlight the justification of the stages in the public competition for funds, which provide not just assistance to discover buildings with cultural value, but also guidelines to evaluate heritage in an everyday environment, a contribution for the development of society and potentially a cultural landscape. This flexibility allowed

19 Inter-American Development Bank.

20 PEC-UACh (Council of Rectors) document, 2019, 2021, and 2022.

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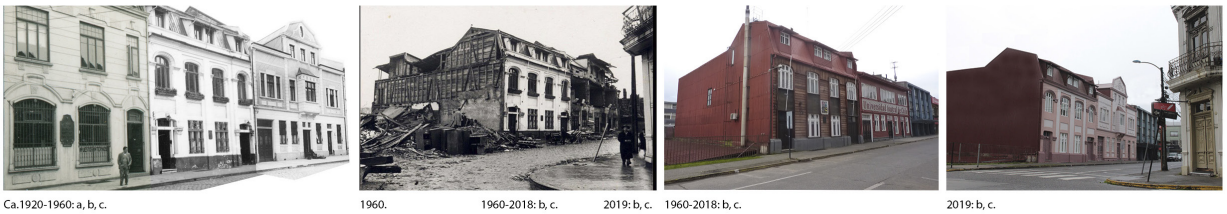

Ca.1920-1960: a, b, c. 1960. 1960-2018: b, c. 2019: b, c. 1960-2018: b, c. 2019: b, c.

Figure 6. Composition of the case study B2m for houses a, b, c. Source: Preparation by the author.

Figure 7. Restoration project models, houses b and c: horizontal and vertical sections. Source: Preparation by Pablo Gómez Alvial.

restoration by architectural typology followed by a context analysis (Araya & Saelzer, 2017; Saelzer, 2017; Saelzer 2019 c and d). Over the decade, this program has become strategic for medium and small-scale restoration projects in southern Chile, providing funds within a management year. This periodicity has made it possible to research architectural restoration on several levels -for management and to seek sources of funding, project stage, and building phases- determined by native timber with diverse frame depths and architectural accents.

Cultural value in fragmented town regarding the landscape.

The imbalance of fragmentation and the potential critical composition of the cultural landscape in Chile´s southern towns, make the heritage management and restoration process aware of connecting urban fabric and recovering human communities. As buildings are cohesive to "associative fabric" and "analytical decomposition of (…) layers and their re-composition", as in the "heritage landscape" methodology (Fernández & Silva, 2016: 136), restoration also becomes a practice of evaluating the environment (Figure 6, Figures 7). Human manifestation in "space, territory and perceptive keys of the place" is a hermeneutical reading of land and its geographic context (Ojeda

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Rivera, 2013: 29 and 38), that can reinforce meanings from the aesthetic to ethics (Ortega Valcárcel, 2004: 29; Zoido Naranjo, 2012).

In Latin American urban areas, the continental regional focus is already declared: to overcome poverty and reach the Global Development Goals (Siclari, 2017). Heritage management on facing these challenges is discussed as part of the heritage landscape methodology considering the interpretations and significances given (Fernández & Silva, 2016: 188-190; PNUD-MINVU, 2021), identifying, characterizing, and proposing heritage operations starting from the vector concept. In this field, landscape management can pursue those goals through integration as it can be understood from a cultural mixed landscape that is lacking in Latin America (Silva & Fernández, 2015).

Seven key variables identified for technical guidelines

The topics of the key points can lay the groundwork to develop a strategic methodology in the field of building rehabilitation in the South of Chile, that are missing in the legal frameworks that address culture. Material architecture conditions play a crucial role in culture (Schauer, 1990: 35-39), therefore, land analysis as it has been already published (Arenas, et.al., 2004; Alvarado et.al, 2019) becomes a reference to geotechnical aspects that are useful for suitable restoration strategies in the historic center, as initially was presented in the first land and urban cartography in Valdivia, immediately after the 1960 earthquake (Barozzy & Lemke, 1962). Hence, the first topic in the key variables -Placement Conditions- referred specifically to the heritage landmark in the Valdivia River basin and its historic background.

The purpose of this next topic is the incorporation of a notion of space that supports the concept of "reproduction" that comes from social analysis, to combine it with the technical approach. The combination lies in the spatial and time dimension "of the fragments deposited on the shore of modern times and left there as the social currents in which they were created withdrew" (Giddens, 2003: 18 and 379). Past and future may also lay the ground for the followed topics. As with the time-space system and practices related to identity (Harvey, 2008: 242), the valorization of buildings is happening at the heart of State institutions, and restoration becomes a consequence of the public role.

According to IHR's latest conclusions (Saelzer et. al., 2019 b), the IHR update incorporates a topic summary as was already mentioned in the introduction, and an improvement of the descriptions as follows:

Technical guidelines:

1. Placement conditions: historic placement data is dependent on geotechnical soil analysis, which is a contribution to re-evaluating

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seismic dangers as part of the restoration processes and cultural value (Figure 2).

2. Material selection: material selection and suitability of building practices need a conceptual as well as a technical evaluation when reacting to the different historical risks time lined in the building (Figure 3, Figure 8).
3. Transformations due to natural hazards: this topic addresses conditions led by seismic movements to correct the transformation of architecture considering its original situation and future earthquakes (Figure 4, Figure 5).
4. Rehabilitation standards: integration of current rehabilitation standards in line with public agencies during restorations, but with a flexible groundwork that makes a permanent evaluation onsite possible, followed by new decisions.
5. Restoration as a public role: restoration involves a way of resolving territorial identity problems through issues architecture can face. Among the National laws and Regional-administrative guidelines, building valorization is a starting point for a public role, and restoration should be a consequence (Figure 6, Figure 7, Figure 8).
6. Sustainable planning: this point focused on the management of planning to make financial expenses in restorations profitable as investments, incorporating materiality (Key points 1 to 4), service life, and the occupation load of the restored building (Figure 3, Figure 4, Figure 5).
7. Land diversity and environment: this topic focused on the balance needed in the National Heritage Law regarding conditions to operate within land diversity for the interests of social science disciplines, engineering, and architecture. A balanced subsoil relationship (e.g. archaeology v/s soil stratigraphy and its analysis) should follow, on different scales: regional environment in terms of the ecoregion, settlements -Wooden Cities-, and the landscape that defines Southern Chile as far as a historical identity and its need for territorial planning practice (Figure 2, Figure 8).

An approach to the notion of landscape:

8. The restoration process, its results, and the permanent territorial context are a visual approach to the landscape where society and its local culture are involved (Zoido Naranjo & Venegas, 2003). From this key point to strengthen the IHR, which has been called "an approach to a notion of landscape" it is expected that the restoration work and its geographic-spatial context as a whole will be linked to the heritage rehabilitation. Society's narrative on restoration and territorial conditions, which incorporates them through rhetoric -the heritage-, strengthens the significance of visual elements, since

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Figure 8. Reincorporating elements through visual narrative. Source: Photographs by the authors and Sebastián Leichtle.

the perception of the environment is fundamentally visual (Figure 6, Figure 8). At different scales, visuality can imply a diagnosis of society about the use of the environment and human activity in its relationship with nature and culture -city, its districts, countryside, nature, laws, and norms, etc.- which links aesthetics with ethical, political, and territorial dimensions (Zoido Naranjo, 2012).

FINDINGS

The cultural and technical criteria behind the buildings of the UACh Collection are put under pressure when the legal heritage framework -at the LMN- focuses the restoration -integrated and partial- on one area, influencing the public institutional programs for heritage restoration. These are strongly detailed in regulations (e.g. archaeology), and leave the regulation of other strategic disciplines to building permissions -LGUC, NCh 3389/2020**21**- (soil stratigraphy and its analysis). From a technical viewpoint, the guidelines for heritage management in the region of Los Ríos –Valdivia still offer an incomplete understanding of the architectural challenges regarding natural and environmental actions and anthropic aggressiveness.

As the case study is not a formally protected building, the agreement between MINCAP and UACh to finance half of the restoration and challenge the legal body was regarded as a finding. This procedure was interrupted in 2019 giving priority to formally protected buildings (e.g. National Monuments and Historic Preservation Properties). This omission can relegate special and ordinary buildings to the long process of disrepair and disappearance, something which is strongly characterizing Chilean southern towns.

21 Recent Chilean Norm -Norma Chilena (NCh)- for structures – intervention in heritage and existing buildings – requirements of the structural project.

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Diachronic analysis of buildings in a fragmented urban and cultural town fabric became the opportunity to start evaluating them as a "matrix", and restoration as a generator of specific selected "heritage vectors". However, this needs to be proved and proof found in the field of hybrid or heritage landscape methodology and, following previous international experiences, territorial analysis and planning need to be done (Capel, 2016). Heritage landscape methodology, connecting timber buildings and town, that has a deeper significance as a connection of space and history, can contribute to a deeper understanding of Southern Chile's modern settlement territory and its potential relationship to other world regions.

Because architectural technicalities and diverse cultural perspectives are inseparable in heritage management, the gaps that IHR intends to resolve as a methodology, need a clear tryst to standardize building qualities from different tangible and intangible perspectives and address landscape so it joins settlements and society. The UACh Collection shows how enormous the difficulties to treat buildings as a unit is on a regional territorial scale. Local and regional administrations lack the tools for a systematic dialog with the institutions that administrate cultural heritage on a national level. As the real estate market is specifically oriented to intense economic land use and not the recreation of urban conditions, the consequences can be seen in the disappearance of the local and regional characteristics that Wooden Cities have. The building market is a hazardous scene as a tool to preserve tangible content (harvesting and treatment of native wood species, timber-framing, furniture, timber-finishings), therefore, intangible content is also difficult to maintain, like carpentry and building maintenance trades.

CONCLUSIONS

The objectives -updating and marking out arguments for IHR- have been reached through a systematic use of a public program oriented to the rehabilitation of buildings that fall within cultural heritage criteria, in a particular urban context, for a certain period of time that enables the first evaluation. The recording of steps has been essential to establishing research in an empirical field, full of administrative rather than cultural processes. The UACh Collection shows that local strategies combined with national programs are essential to enhance cultural heritage management on a regional territorial scale.

Within the limits of the study, it was previously established that the focus of the national regulations on historic architecture and the regional guiding instrument for heritage restorations impedes IHR due to the tendency of hyper-focalization in one field. Architectural tangible

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heritage conditions that could be missing in the Chilean public service were identified. There are gaps between the social science procedures, the engineering, architectural factors, and spending on rehabilitation -complete or partial restoration- that IHR and its case study, as Casa Central, can help to answer.

The Collection and case study underlined the relative importance of timber during the 19th-century colonization in Southern Chile and the modernization of living conditions that continued in a vernacular practice until very late in the 20th century. This heritage includes the notion that the native forest and its wood are linked to this cultural field, therefore, the bourgeois and ordinary districts together can also address identity factors within the wider population.

The flexible application of MINCAP programs for small-medium scale building for hybrid B1 and B2 typologies, has expanded the identification of cultural heritage. It has also stimulated research on the discussion and valuation of A1 and A2 typology (Figure 4), which broadly characterizes the modernization stages and aesthetics of towns before the 1960 earthquake. The analysis focusing on the Wooden Cities concept finds a potential to reach a mixed category on landscape in Southern Chile's ecoregion's environment, based on these heritage buildings, their urban districts, towns, and rural villages.

The remaining timber buildings as a whole is a heritage that has a cultural purpose, but even the recovery and restoration strategies have weak institutional and market support nowadays. Hence, the importance timber architecture had in the local economy for the aesthetic and social environment of towns, in rural areas, and in the expansion of the few cities, in the Southern Administrative Regions of La Araucanía, Los Ríos, and Los Lagos, is in danger of completely disappearing or just retaining some buildings as heritage objects.

The eight key points can contribute to enhancing the integrated rehabilitation of heritage buildings and districts, and the public impact of public funds beyond formally protected areas. In order to improve southern Chilean cities and regions where the forest was a determining factor when settling and modernizing, moving the focus to its raw material -timber produced from specific native species- from a mixed cultural and natural heritage orientation, TZs can be regarded as pilot projects for a complete evaluation.

After considering the service life of buildings, the research needs a path to an economic ratio field, interpreting spending, and predicting it as an investment in the urban field and the already characterized contexts. The complexity and flexibility to reproduce town heritage, and the spatial and time dimensions of society, can lead processes not

to be left for individual interpretations during restoration processes, but rather to wider agreements and professional standards.

For restoration processes to be integrated, preliminary evaluations must include economic ratios on real-estate standards for the owners and the institutional frame. Cost units and their results as investments, the prioritization of the future service life of the building, integration with the surrounding original architectural and territorial identity, and the ease with which it can be culturally associated, are becoming essential.

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Abandoned Territories: Reappropriation of Infrastructure Works by Deleuze, Guattari, and Derrida

TERRITORIOS DE ABANDONO: REAPROPIACIÓN DE OBRAS DE INFRAESTRUCTURA DE DELEUZE, GUATTARI Y DERRIDA

TERRITÓRIOS DE ABANDONO: REAPROPRIAÇÃO DAS OBRAS DE INFRAESTRUTURA A PARTIR DE DELEUZE, GUATTARI E DERRIDA

Figura 0 Zumbi dos Palmares Public Space, Porto Alegre - expressive territory and space of diversity. Source: Preparation by the author

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RESUMO

A partir do conceito de território, o artigo investiga os possíveis caminhos de ressignificação das obras de infraestrutura urbana. Obras de infraestrutura como viadutos, pontes, passarelas, escadarias e túneis caracterizam-se como instrumentos públicos que possibilitam conexões e fluxos para o eficiente funcionamento das cidades. Prevendo maior qualidade na forma de ocupação territorial, as obras de infraestrutura, além de espaços técnicos com funções específicas, podem transformar-se em dispositivos éticos, de cidadania e alteridade? O artigo, através de pensadores como Deleuze, Guattari e Derrida, objetiva desconstruir os conceitos de origem em novos atributos conceituais. De forma contextual, a pesquisa adapta o método de análise conceitual, apresentando um quadro propositivo – conceito de origem, conceito de interesse e possíveis consequências. Por um lado, a pesquisa aproxima Deleuze e Guattari dessas construções de caráter público através de conceitos como: organismo, rizoma, estrato e corpo funcional. Por outro, aproxima Jacques Derrida a partir da ideia de receptáculo, numa espécie de território livre e discursivo, onde a linguagem acionada por um outro pensar descentra e reconstrói o objeto em múltiplas interpretações, desconstruindo-as. O texto é reforçado imageticamente por ocupações de obras públicas singulares e representativas de Porto Alegre (Brasil).

Palavras-Chave: território, obras de infraestrutura, análise de discurso, aspectos filosóficos, intervenções urbanas.

ABSTRACT

Based on the concept of territory, the article investigates the possible ways of resignifying urban infrastructure works. Infrastructure works such as viaducts, walkways, staircases, train tracks, subway stations, and tunnels are characterized as public instruments that enable connections and flows for the efficient functioning of cities. Foreseeing a greater quality in the form of territorial occupation, can infrastructure works, in addition to being technical spaces with specific functions, become ethical devices belonging to the citizenry, and show otherness? The article, through thinkers such as Deleuze, Guattari, and Derrida, aims at deconstructing the concepts of origin into new conceptual attributes. Contextually, the research adapts the method of conceptual analysis, presenting a propositional framework – the concept of origin, the concept of interest, and possible consequences. On one hand, the research brings Deleuze and Guattari closer to these public character constructions through concepts such as: organism, rhizome, stratum, and functional body. On the other hand, it approaches Jacques Derrida from the idea of the receptacle, in a kind of free and discursive territory, where the language activated by another way of thinking, decenters and reconstructs the object in multiple interpretations, deconstructing it. The text is visually reinforced by using singular and representative public works in Porto Alegre (Brazil).

Keywords: territory, infrastructure works, discourse analysis, philosophical aspects, urban interventions.

RESUMEN

A partir del concepto de territorio, el artículo investiga las posibles formas de resignificar las obras de infraestructura urbana. Obras de infraestructura como viaductos, pasarelas, escaleras, vías de tren, estaciones de metro y túneles se caracterizan como instrumentos públicos que posibilitan conexiones y flujos para el funcionamiento eficiente de las ciudades. Previendo una mayor calidad en el modo de ocupación territorial, ¿pueden las obras de infraestructura, además de espacios técnicos con funciones específicas, convertirse en dispositivos éticos, de ciudadanía y de alteridad? El artículo, a través de pensadores como Deleuze, Guattari y Derrida, tiene como objetivo deconstruir los conceptos de origen en nuevos atributos conceptuales. De manera contextual, la investigación adapta el método de análisis conceptual, presentando un cuadro propositivo – concepto de origen, concepto de interés y posibles consecuencias–. Por un lado, la exploración, acerca a Deleuze y Guattari a estas construcciones de carácter público por medio de conceptos como: organismo, rizoma, estrato y cuerpo funcional. Por otra parte, se aproxima a Jacques Derrida desde la idea de receptáculo, en una especie de territorio libre y discursivo, donde el lenguaje activado por otra forma de pensar descentra y reconstruye el objeto en múltiples interpretaciones, deconstruyéndolas. El texto es reforzado visualmente por ocupaciones de obras públicas singulares y representativas de Porto Alegre (Brasil).

Palabras claves: territorio, obras de infraestructura, análisis del discurso, aspectos filosóficos, intervenciones urbanas.

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INTRODUCTION

Public spaces generated by infrastructure works are a marginalized territory, the result of poor planning, utilitarian concepts, and a policy necessarily aimed at social fragmentation. Through thinkers such as Gilles Deleuze, Félix Guattari, and Jacques Derrida, this article seeks to reflect on the concepts of these territories, occupied by works such as viaducts, staircases, bridges, walkways, roads, train tracks, tunnels, etc. Thus, the question is: in the current context, do territories formed by the infrastructure works of cities respond to the needs of society? Does the purpose for which they are intended offer openness to new demands linked to social, cultural, and economic issues?

Foreseeing a higher quality in the form of occupation, the article aims at deconstructing the inception meanings into new propositions, reviewing concepts, uses, and new applications. The research was carried out using as a bibliographic base, the philosophical thought of Deleuze, Guattari, and Derrida. As a method, the evolutionary conceptual analysis proposed by Rodgers (2000), together with the manuscript, was adapted to reinforce the concepts presented, with the use of images of public works located in Porto Alegre (Brazil), such as the staircase of Rua 24 De Maio, the Otavio Rocha Viaduct, the Conceição Tunnel, and Zumbi dos Palmares public space.

As a result, a synthesis of conceptual analysis is presented, to approach the thought of these philosophers with the idea of the inception of these works, considering their possible propositional consequences. The article aims at reflecting on the importance of the occupations of infrastructure works in cities not only from the perspective of efficiency but philosophically extending its limits, seeking to see architecture as a social body, produced by the city and its inhabitants. The territories formed by infrastructure works, in an idea of "desiring territory", seek to become ethical and otherness devices, deconstructing themselves into bridges, connecting elements, and spaces of experimentation.

The text is organized into five parts in addition to this introduction. The first part addresses the concept of territory and urban infrastructure; the second part expands upon the notion of territory from the idea of multiterritoriality; the third part, as a form of discursive and exploratory experimentation, introduces the philosophers Gilles Deleuze and Felix Guattari and the mechanisms of desire and deterritorialization; the fourth part presents the thinking of deconstruction and otherness of Jacques Derrida; and the fifth and last part provides the final considerations of the manuscript.

METHODOLOGY

The article adapts the evolutionary conceptual analysis method of Rodgers (2000), with qualitative, exploratory, and contextual research made using the philosophical concepts of Deleuze, Guattari, and Derrida. The contextualities of the terms and concepts studied were close to the concepts of inception (infrastructural territories). The concepts (meaning of inception)

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related to the object of study (public territories of urban infrastructures) were obtained through the author's experience (empirically) and reinforced by Mascaró and Yoshinaga (2005), Meyer (2001), and Lefebvre (2006). The contextualization of the research on urban infrastructure focused on the following terms/concepts and their philosophical derivations, organized into four chapters: (1) infrastructure works, territory, and territoriality; (2) multi-territories; (3) desire, rhizome, territorialize, deterritorialize, and reterritorialize; and (4) ethics, otherness, and hospitality of space. The results of the territorial attributes were organized/illustrated using a synthesis table made with the following elements: concepts of precedence (meaning of inception), concepts of interest (philosophical meanings), and consequences (conceptual attributes and possible project propositions).

Infrastructure Works: Imaginable Territories

Infrastructure works as collective equipment, represent a public domain territory, and support the life of the city through technical and single-function activities (Meyer, 2001). For Mascaró and Yoshinaga (2005), urban Infrastructure technically and physically configures and organizes the public spaces of cities, with there being a variety of structures and construction methods, preferentially aiming at the functioning of the road system, privileging the use of the car, and weakening the interaction of pedestrians with the territory. Infrastructure works are classified based on issues such as water supply, rainwater, and sewage collection, electricity and lighting networks, public roads, public spaces (such as squares), and finally, infrastructure elements or architecture, such as walkways, viaducts, and bridges, enabling the social, territorial, and economic exchange of cities (Zmitrowicz & Angelis Neto, 1997). Thus, the elements of infrastructure are technical instruments. However, for Rouanet (2001), the technique will never be neutral. It is, first and foremost, political, a place of action of power through the control of time, the time of departure, of arrival, and the schedules to work and to rest.

Therefore, the definition of territory formed by these works is connected to the full realization of the human condition, being amenable to interpretations and meanings. For Lefebvre (2006), space can be transformed into territoriality driven by the symbolic dimension of the one who appropriates it. According to Fuão (2012a), the technical sense with a specific purpose of architecture can be diverted to other territories, generating new situations through the force of word, action, and thought. A displacement of the meaning of the word and the text itself, where allowing, discovering, and experimenting takes on new directions. For Lefebvre (2006), territory, in the sense of territoriality, is not only synonymous with space or spatiality, as a material dimension of reality, but a dimension of senses, affections, and meanings. On the other hand, Lefebvre highlights that the association between the territory and humans falls within the dominion of space, through a technical transformation of nature. Geometrized forms characterize power and control, standardizing the landscape and natural space.

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Figure 1 e 2. 24 de Maio Street staircase, Porto Alegre. Symbolic territory, which marks the meeting point between the Downtown and so-called Lower City. Source: Preparation by the author

For Hall (1986), the territory is presented as a multiplicity of signs, and its meaning is only understandable from the cultural codes where it is located. In a territorial anthropological view, it is not the dimensional and physical characteristics of the territory that determine the creation of meanings and their thematization; the investigation of the physical environment will never allow a social and cultural direction (Hall, 1986). Hall goes on to say that everything that is around man, is endowed with meaning; thus, humans become the main element, the signifying element, which gives meaning to the territory (Hall, 1986).

Haesbaert (2014) states that the use of the territory is not only a component of signs but of power. Organizing itself as a model, it sets itself as a disciplining standard. In this critical way, he goes on by saying that the dominion over space is used from the technical activities carried out, but mentions that this utilitarian vision does not account for contemporary conflicts. Territory, therefore, is a combination of the functional and the symbolic, the individual and the collective, the abstract and the concrete, the subjective and the standard. Lefebvre (2006) defines territoriality from contradictory forces – logos and eros, with logos being an idea of spatial logic, of domination, exercising the function of control, and, at the other extreme, eros as a subjective, appropriative, desiring, and sensitive force, the idea of creation, of effectively autonomous space. Haesbaert, in a path somewhere in between, redefines functional issues through the legitimate need for effectuation

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(affects derived from use), in an opening of meanings. In this way, territory as appropriation is shelter and protection, it is where every source of survival takes place, from obtaining raw materials to recognizing oneself (identity) as part of the landscape (Haesbaert, 2004).

For Lefebvre (2006), the idea of appropriation distances itself from domination by the marks of meanings of those who experienced it. Therefore, the territory occupied by humans has a symbolic value, since the idea of domination over space represents property and exchange value. For Fuão (2012a), works such as viaducts are transforming agents of urban spaces due to their characteristic of bringing together and, at the same time, sheltering, protecting, and connecting, transforming the territory into places of hospitality, architectures of friendship. The use of the territories formed by the urban infrastructure works must bring in themselves the sense of free appropriation, where the needs and desires make them symbols with a strong cultural and identity load. Open to interpretations, the staircase of Rua 24 De Maio in Porto Alegre, presents itself as a sensitive territory, a space between. The staircase appears as a connecting interface, (re)uniting two neighborhoods – the upper downtown with the lower city. As an infrastructure work, the staircase exposes the first urban quality of these works: it connects parts of the city, unites landscapes, and brings identities and histories closer (Figures 1 and 2).

Urban (multi)territories

Following Haesbaert (2004) and Lefebvre (2006), the idea of urban territories formed by infrastructure works can be presented collectively, in a multiplicity of events. One understands urban infrastructure works as bridges, walkways, viaducts, tunnels, passageways, and staircases, as public elements of integration, accepting various types of territories with their own dynamics (times, meanings, and uses), through a single multi-territorial matrix (social, cultural, political, and economic). Lefebvre (1999) reinforces the idea of multiplicities as synonymous with events; clear examples of this are the structures focused on transport (such as road networks), in addition to a place of passage and circulation, characterized by places of meetings and exchanges.

Therefore, approaching Lefebvre and Haesbaet, the territories formed by infrastructure works can be transformed into multiple, socially constructed spaces, defined by processes of appropriation of different individuals, interests, or groups. More than urban waste or unplanned spaces of the city, infrastructural spaces are territories of social realization with the potential of generating unexpected encounters, events, and forms of appropriation, activated by the different individuals who exercise the various forms of power in their multiplicity of incorporated manifestations.

To reinforce the importance of the reappropriation and resignification of these public works, one returns to the thinking of Haesbaert (2014), who outlines that the forms of occupation must vary over time, being the historical construction essential for housing the city's cultural manifestations. Thus, the spaces formed by infrastructure work as indefinite, unplanned territories, are

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Figure 3 e 4. Otavio Rocha Viaduct, Porto Alegre – represents the multiterritoriality of the regional capital. Synthesizes the cultural and symbolic image of Porto Alegre. Source: Preparation by the author

open to the concepts defended by Haesbaert and Lefebvre through the idea of multiple sense territoriality; a multiterritoriality built by groups or individuals, and it can be stated that part of the attributes of infrastructure works lies in the flexibility of territorial connections, in multifunctionality, and in the different identities generated. Therefore, territoriality, for Haesbaert (2014), is an abstraction in the ontological sense, where symbolic and signification matters are permanent, overlapping materiality, function, and image, in a complex richness of multiterritoriality. This term turns to the experimentation of several territories at the same time, forming multiple territorializations, which start from the individual, from small groups, building a network of social relations in an idea of spatial multi-belonging.

The concept of multi-territories has multiple scales and new forms of articulations and agencies. According to Haesbaert (2014), multiterritoriality is spatial articulations in a network, territories-networks, points of connection that allow "playing" with the multiple modalities of existing territories creating, from there, infinite possibilities. Multiterritoriality provides for movement and displacement, it is the recognition of public space by the transforming dynamics of society in a global sense of place. Multiterritories, as territories-zones, move from a stable space, with limited and demarcated borders, with fixed identities, to a progressive vision, not closed and defensive, facing outward, to a new time-space relationship. For Haesbaert (2014), the functional and symbolic space of cities can be manifested by the sense of multiplicity and multiterritoriality. In a

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collective and plural way, the Otavio Rocha Viaduct in Porto Alegre presents the concept of multiterritoriality through the idea of dynamic space, built by different groups. As an infrastructure work, the viaduct presents the second urban quality of these works - flexibility of social connections with multiple memberships (Figures 3 and 4).

Territorializing Deleuze and Guattari

Deleuze and Guattari (1997), contrary to functional and possession aspects, expand the notion of territory extending the physical sense to the mental one, where the scales range from an object to the (re)territorialization of thought. In this process of construction by philosophers, the concept of territory is the result of a will and a desire from the need for realizations, triggered by agencies. The concept of physical and dimensional territory unfolds as gateways, through attributes that involve power and matter in motion, in a time-space relationship not yet established or known, as it presents itself as a form of expression. The territory, now transformed into an expressive matter of intensity, defines itself as a place in transformation. Therefore, territory, for the philosophers, lies in a constant becoming. It is a process, that comes to become, an endless transformation (Deleuze & Guattari, 1997).

The nomadic and wandering thought of philosophers passes from one territory to another, breaking the dominant thoughts and building the space as a political, aesthetic, and ethical component. The existence of the territory comes from confluences. Solidity and fluidity always go together, but only fluidity allows permanence, by its displacement. Thus, space is, first of all, spatialization, since all the emptiness of spatiality is flow and encounter, never fixed or final places. The concept of space must be rhizomatic, escaping scientific, hierarchical, and structured definitions, consisting of openings and becomings. In this way, the quality of the object is in expressiveness, context, and intensity, and not the stratified physical-functional representation of the object. Zumbi dos Palmares public space, in Porto Alegre, exposes the power of space itself, a great emptiness, an expressive territory, open to diversity. The void represented by this space is deconstructed in terms of expression, and dimensional and physical issues move towards the desiring thought of the individual who will freely occupy it. As infrastructure, this public space shows the third urban quality of this work: space as an expressive matter and one of intensities (Figures 5 and 6).

Thought is not in polarities and contradictions, but in the simultaneous, in the connections, and in the idea of the rhizome. Rhizomes, for philosophers, are non-hierarchical thoughts, that do not start from a single referential and central point. A rhizome is made up of encounters, in the cartography of multiplicities, where the different representations attributed to the materialized environment vary. Differing from the tree-root model of arborescent thought, a rhizome is a cartography, it is experimentation, open and collapsible, subject to permanent modification, with multiple inputs and outputs. On the contrary, the spaces of the structures of infrastructure works are hierarchically thought of as organic, dependent pieces, distancing themselves from the idea of multiplicity and

Figure 5 e 6. Zumbi dos Palmares Public Space, Porto Alegre - expressive territory and space of diversity. Source: Preparation by the author

autonomy of philosophers. Thinking about the possible agencies and how to design/plan the spaces of infrastructure works is to reflect on the concept of these structures. Thus, to deconstruct their meanings of inception, they must be reinterpreted as desiring spaces, in a social, sensitive, and human narrative, associated with the object, but mainly with the individual and society. For the philosophers, the idea of desire must be understood as an active force and extensive to the work, the desire of that which is productive; it is the raw material of creation; it is in the force of invention.

Therefore, the creation of territories must start from desires. To desire is to territorialize, it is the action mechanism for the existence of the individual. From desires, combinations and agencies are realized and territories arise, exceeding the stratified organism. The agencies are thus articulated with content and

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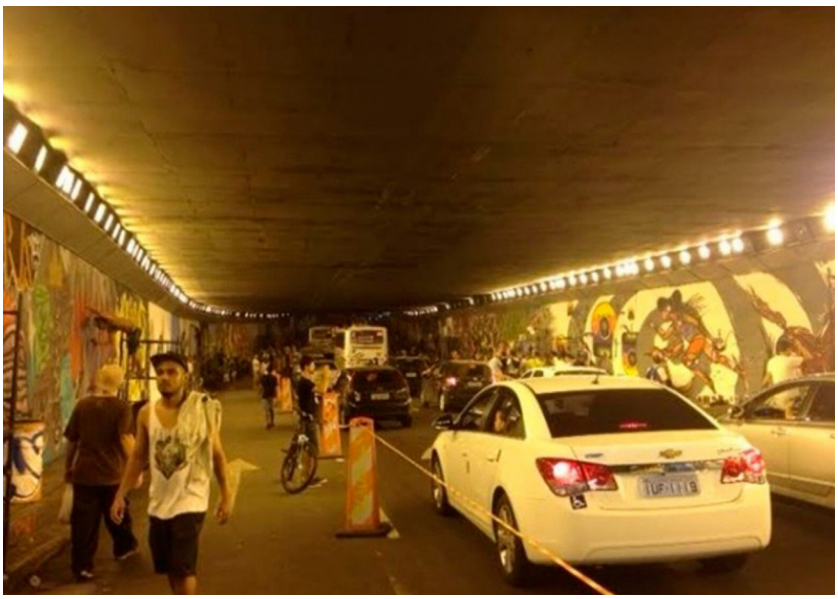

Figure 7 e 8. Conceição tunnel, Porto Alegre. Graffiti event (2004) – New events, new territorial agencies. Source: Preparation by the author

expression, without hierarchy, order, or position, and the desiring movement is the fuel for the agency to happen and the territory to be born (Deleuze & Guattari, 1997). In the graffiti event held in Conceição Tunnel in 2004, new possibilities of occupation were explored through the idea of desiring territory. For Deleuze and Guattari (1997), desire awakens thought and imagination and, consequently, the transformation of space. Desire is the power of production, but also the machine of effecting. As infrastructure, the Conceição Tunnel unveils the fourth urban quality of these works: space as a desiring matter. Thus, territorialization can happen in anything, as long as it represents a set of agencies of desiring bodies (Figures 7 and 8).

There is a movement, a continuous making, undoing, and remaking from the agencies that deconstruct the territory into new territories, as well as agencies

that will be new. This movement of territorializing, deterritorializing, and reterritorializing becomes an act of abandonment of the territory, it is the deviation, the movement as a vanishing line, and, at the same time, the movement of construction of new (multiple) territories. The representative of this deterritorializing process, for Deleuze and Guattari, focuses on the nomadic wanderer. Not in the sense of anti-territory, but in the way of understanding the territory as something open, as indefinite space, without division, without borders, marked by provisional traces that are modified according to their path. Absolute deterritorialization is built by the act of thinking; thinking is the process that activates deterritorialization; thinking is creating, it is breaking with the existing territory, creating another. Deterritorialization always accompanies reterritorialization, which appears as created work: it is manifested art, it is concretized action, and desires achieved. Desiring is the instinctive action of the body manifested in thinking; it is making the agency of encounters possible. But for thinking to exist, there must be a means, the Earth, a soil to fix the desire (Deleuze & Guattari, 1997).

In ***ritornello***, Deleuze and Guattari (1997) work on the idea of deterritorializing the social body, as if life were carried out in a constant movement of deterritorialization and reterritorialization. Humans will always move from one territory to another, abandoning some and creating others. In everyday life, we come and go through various territories, the familiar territory, territories of work, and territories of leisure. Bodies are shaped and constituted in different ways in public or private space territories where the annunciations correspond (and respond) in completely different ways. The same distinct territories have their own and known codes, with their relations of power and acting forces. There is, in daily life, an incessant process of deterritorialization and reterritorialization, with its distinct agencies in each territory.

Hence, deterritorialization rescues the dynamic principle of flow, transforming the static object (representation) into forces, into mobile matter (expression). It is perceived that the world for Deleuze and Guattari is constituted by a non-physical, functional, and organic representation, but of expressive and symbolic desires. The territory is thus constituted in an act, one that affects the means and rhythms of those who territorialize it. The territory is not just a thing, area, space, or object, but it is action, rhythm, movement, and affection, which is repeated in the incessant desire and the imaginary of thinking (Figure 9).

Derrida, deconstruction, and ethics

For Fuão (2012B), deconstruction is a work that, in architecture, allows the displacement of the meaning of the construction itself as the signified. Hence, its structural motifs, schemes, intuitions, and concepts will be resignified in endless reinterpretations, deconstructing the construction itself. In architecture, deconstruction must take the role of critical investigation, invading its structure of thought and questioning

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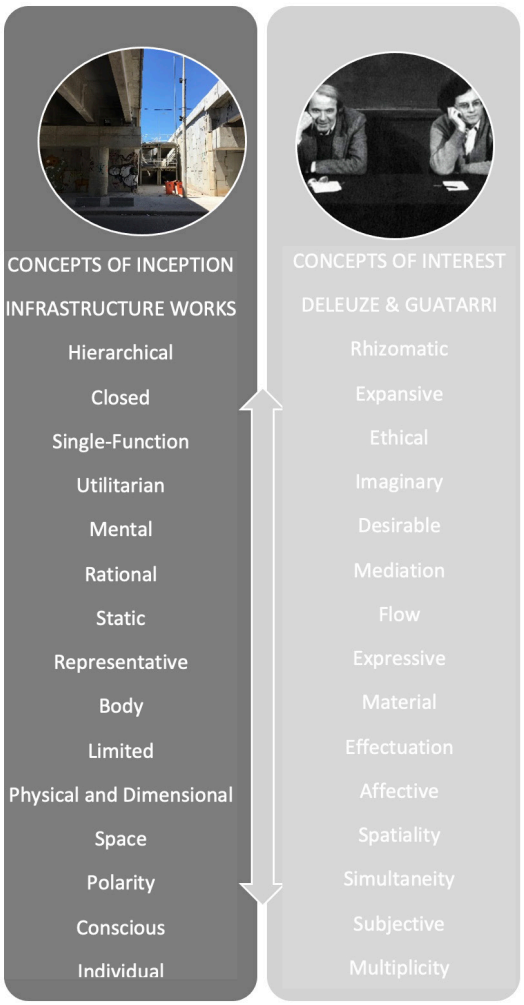

Figure 9. Conceptual analysis - Territorial attributes. Territory infrastructure by Deleuze and Guattari. Source: Preparation by the author

its meaning of inception (Solis, 2009). The idea of deconstruction, far from an aesthetic-formalist character, should trigger a discussion and a crisis of representation, moving towards an opening of an ethical-political basis. Therefore, matters such as hospitality and otherness, worked on by Derrida, can be resumed in architecture as a form of deconstruction (Solis & Fuão, 2015). Deconstruction, metaphorically, can be applied to the structuring elements of the infrastructural spaces of cities, generating new meanings. As Rodrigues (2010) reinforces, the meaning is changed by breaking with the idea of inception, unfolding language concepts, and taking them to their limit, taking the text and scripture as an opening point. Deconstructing oppositions, the opposite poles lose their contours and forces, with thinking that displaces, that removes the certainties of the extremes where everything is organized, hierarchized, and conceptualized (Derrida, 1995).

Derrida (2001) denies experience and consciousness, as well as the idea of inception through a displacement, a disturbance, a restlessness for the field of thought. New thinking is triggered by the imaginary, an instability that inhabits thinking. Therefore, in an imaginary process, the action of

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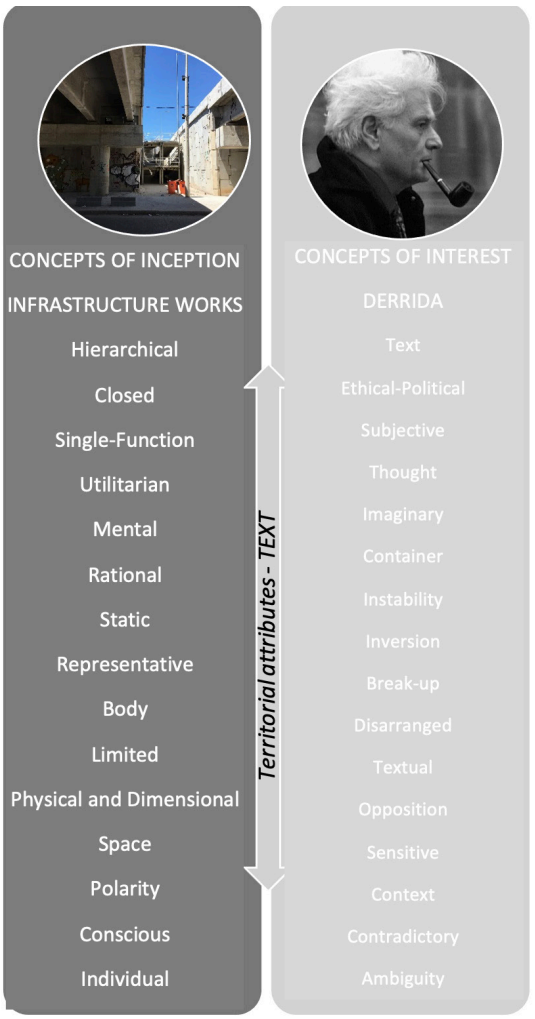

Figure 10. Conceptual analysis - Territorial attributes. Territory infrastructure by Derrida. Source: Preparation by the author

thinking is triggered in two not necessarily distinct moments, as Derrida puts it. The inversion of thinking about the functional concept of the object would be the first de-structuring movement, discrediting the object as order, image, and meaning, deconstructing it. To reverse the hierarchical order is to annul the forces of what is conceived showing, in-depth, thus breaking with the existing structure and exposing what was hidden in the interests the object maintained. Inseparably, there is a displacement of the object under analysis, in a conceptual opposition, in the light of new concepts, and without a structuring commitment and fixation with the original thought.

For Derrida (2004), one must return to the ethics of spaces through the concept of otherness. Otherness is linked to the unconditional acceptance of the guest, of the other. In this context, space is not physical, but is lived, and felt. Architecture, on meeting with the outside, with the guest, with the user, must open itself, not with a question, but with the "yes" of those who unconditionally, unlimitedly accept this consequence of transforming. The "yes" of the host, as a gesture of otherness, means allowing the other, in their "language", to freely say "I". Therefore, the decision will always be the other's, everything is entrusted and proceeds from the other (Derrida,

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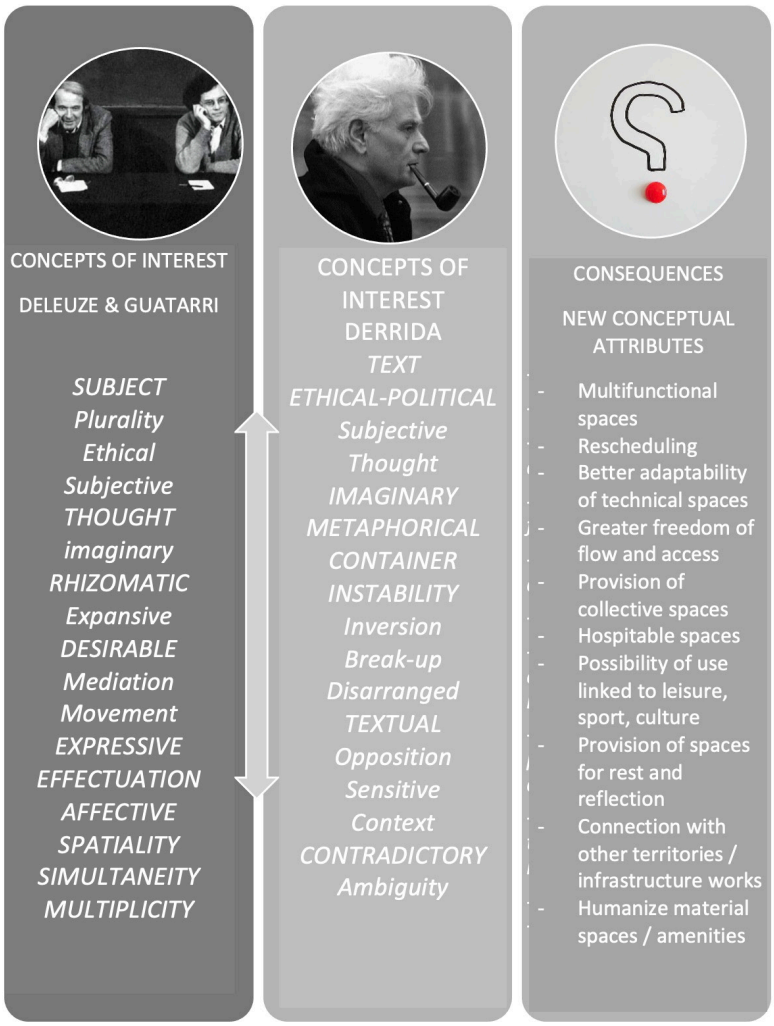

Figure 11. Conceptual analysis - Consequence - Associative synthesis of the concepts of interest. Projective propositions. Source: Preparation by the author

2004). On the other hand, it is almost impossible to think of the territory as an ethical gesture, of otherness, without a specific place, since hospitality comes from the other and reaches another, from the outside to the inside. For the philosopher, the ethical component defines a (shared) place through experience and thinking from the other, from an otherness built by the imaginable: hospitality, love, responsibility, and shelter. The ethics resulting from this unconditional acceptance, for Costa (2011), occur in the free subjectivity of the other; that is to say that the freedom to think occurs when one accepts the freedom of the other with open arms. Ethics is a sensitive and affectionate act where the uniqueness of the other is known by the waiting. Thus, driven by the legacy of the philosopher Levinas, Derrida explores the sense of hospitality as a synonym for shelter to think about ethics. Ethics, not as a legal, or political problem, but rather related to an ethical life (Derrida, 2009). Approaching the infrastructure works, the public spaces generated must possess in themselves the will to be hosts to everything that is inside them (Figure 10).

As an idea of deviation, unfolding, and (re)interpretations, the multiple identities of infrastructural spaces were conceptually and imagistically explored, breaking with the mechanistic and utilitarian idea of these public

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spaces in favor of the meeting and the collective action of society. The article moves from the original definition of these structures of the cities and penetrates their uniqueness through the many contradictions of use between project and reality, indicating an opening of territorial resignification (Figure 11).

Informal occupations (informal commerce, homeless people, etc.) of the territories formed by the infrastructure works, approach the ideas and concepts defended by philosophers by presenting: a multiplicity of uses, a contradiction of the activities of inception, and a lack of definition of use based on reality and project. As an example, the main conceptual attributes of philosophers are perceived in the occupation of homeless residents. On the Deleuzian side, the residents, with their shacks (dwellings), rescue affection from these infrastructural spaces of the cities, becoming (existing) beings. Through the concept of the rhizome, they do not follow the hierarchical predictions of the functioning of the project, subverting the activities of inception through the desire to become (by the imaginary and free occupation of public space). Their transient and provisional occupations approach the wandering and nomadic concept of deterritorialization and reterritorialization, in a continuous movement of undoing and redoing, expanding the territory in multiplicities. Through them (homeless people), the space is transformed from a representative, physical and dimensional element into an expression of life.

On the other hand, seen through the Derridean lens, this territory of infrastructure works becomes a receptacle for the homeless resident, a public space devoid of meaning, origin, and denomination, a great meaningless void, open to free occupation. For them, this protected place (viaduct shallows) awaits without asking for names or identities, it is a place of unconditional waiting. From this perspective, they (homeless people) are no longer strangers, but guests. And the infrastructural space is no longer part of engineering, but their home, offering the guarantee of shelter and for dreaming in peace. Once occupied, the territory of these urban structures is deconstructed into welcoming spaces, contradicting and deconstructing the single-functional thinking of these public works.

FINAL REMARKS

Through the frames of conceptual attributes, it is concluded that the function of urban territories formed by infrastructure works should be planned to enable encounters, affective experiences, a greater degree of hospitality, a multiplicity of activities, and greater connection. As a consequence, the concepts of interest would expand the old attributes of urban infrastructure works into new practices and propositions.

The concepts of interest of philosophers are observed in the summary table of attributes. Deleuze and Guattari deconstruct the concepts of

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inception through the ideas of desire, thought, and creation, supported by the freedom of the rhizome and the force of (nomadic) movement of the term (re)territorialization. From the work of these philosophers, the idea of multifunctional space emerges, of freedom of flows and accesses, of collectiveness, of space as a condition for the realization of the users' needs and dreams, of the construction of an identity-based and significant space, and of an ephemeral and transitory space.

On the other hand, Derrida, in an ethical gesture, seeks to deconstruct the sense of the meaning of inception through the idea of absolute emptiness (receptacle) and the textual force of the word and the thought, inverting and disarticulating the sense and meaning of things. The consequences of the possible propositions return to the ethical gesture of hospitality, the reprogramming of (kinder) activities, the humanization of spaces, and the welcoming of spaces of permanence.

The article becomes significant by providing, in the field of architecture and spaces linked to infrastructure projects, a base for the design process, expanding thinking in the formulation of new premises, guidelines, and propositions. It is also significant to make available to the reader, through a philosophical approach, new forms of interpretation, expanding the use and occupation of these technical environments, originally linked to engineering. The article reinforces the important approach of the practice of philosophy (applied philosophy) in the design process, aiming at a higher quality of the built environment in the form of occupation and the meaning of space.

The architecture-territories shown in the images throughout the text are presented as examples, reinforcing the singular image of these territories and the strong connection with the city. As a work of infrastructure, the figures present the spatial force of these buildings, which are still little explored. A force that unites landscapes, brings identities closer, connects stories, makes occupation more flexible, and generates social connections and spaces of belonging that are a matter of expression, intensities, and desires.

Therefore, the idea of territory as an organic body of infrastructure works, organized by preconceived strata and functions, with restricted meanings, can be understood as a desiring territory, where the desire for creation intensifies the quality of public space, providing conditions for the realization of the wills and needs of society, in a gesture of ethics and otherness.

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