

THE MEMORY OF LABOUR AND ENVIRONMENTAL MEMORY:

THE TANNERY INDUSTRIES OF THE SINOS RIVER VALLEY/RS

MEMÓRIA DO TRABALHO E MEMÓRIA AMBIENTAL:

AS INDÚSTRIAS DE CURTUME DO VALE DO RIO DOS SINOS/RS

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ABSTRACT: The article presents a discussion on the urban landscape, the memory of labour and environmental memory along the Sinos River Valley - RS, Brazil, through a collection of texts and images organized from the social trajectories of individuals who have been or still are linked to the region's leather industry. The material makes part of a collection of ethnographic studies that have been developed since 2012, aiming to understand the social trajectories of the individuals, the "narrators of the work", in the context of a metropolitan region and its dynamics: population displacement, urban occupation, environmental conflicts, the perception of transformations in the world of work and the relationship between industrial labour, landscape and urban waters. This is an anthropological research based on the ethnography of duration, presenting the trajectories of these individuals in the context of tannery industries, as well as the relationship between the memory of labour and the region's urban landscape, and the construction of an environmental memory.

KEY WORDS: environmental memory, the memory of labour, the ethnography of duration, urban waters, urban landscape

RESUMO: O artigo apresenta uma discussão sobre paisagem urbana, memória do trabalho e memória ambiental no Vale do Rio dos Sinos - RS, Brasil, por meio de uma coleção de texto e imagem organizada em torno das trajetórias sociais de sujeitos que estiveram ou ainda estão vinculados à indústria do couro na região. Este material compõe o acervo de coleções etnográficas de pesquisas desenvolvidas desde 2012, visando compreender as trajetórias sociais desses sujeitos, "narradores do trabalho", no contexto da região metropolitana e das suas dinâmicas: os deslocamentos populacionais, a ocupação urbana, os conflitos ambientais, a percepção das transformações do mundo do trabalho, a relação do trabalho industrial com a paisagem e as águas urbanas. Trata-se de uma pesquisa antropológica que se apoia na etnografia da duração e apresenta as trajetórias desses sujeitos no contexto das indústrias de curtume, além das relações da memória do trabalho com a paisagem urbana da região e a edificação de uma memória ambiental.

PALAVRAS-CHAVE: memória ambiental, memória do trabalho, etnografia da duração, águas urbanas, paisagem urbana

INTRODUCTION

The Sinos River Valley - RS, according to the division by the COREDES – The Regional Development Councils – is made up of 14 municipalities: Araricá, Campo Bom, Canoas, Dois Irmãos, Estância Velha, Esteio, Ivoti, Nova Hartz, Nova Santa Rita, Novo Hamburgo, Portão, São Leopoldo, Sapiranga, Sapucaia do Sul. However, along the hydrographic basin of the Sinos River there are 32 municipalities.

From the perspective of linking studies on the memory of labour and environmental memory (DEVOS, 2007; 2009; 2010), we herein present the results of an ethnographic research initiated at the end of 2012, in the Sinos River Valley in the Brazilian state of Rio Grande do Sul (RS)¹. Since 2014, we have recorded, by means of audio-visual facilities, biographical narratives and social trajectories of men and women living in the Sinos region, who were connected to the tannery industries, either at the time of the research or in previous periods.

In the present article, from the social trajectories of these individuals, we have prioritized the discussion regarding the relationship of industrial labour to the landscape and urban waters, from the perspective of the *etnografia da duração* (ethnography of duration) (ECKERT & ROCHA, 2013), situating environmental conflicts, the perception of crises and rifts within the world of work. The archaeology of the speech of our research interlocutors - who describe the towns and tanneries from their life narratives, trajectories and urban itineraries – is united with the images that make up the archaeology of the gesture and the form that shapes the memory of the industrial development and urban landscape of the Sinos River Valley.

Here, landscape is understood in the Simmelian dualistic perspective as a demarcation, part of a totality, of a unit, which is nature. It is, at the same time, the particular and the representation of the universal. Landscape is not limited to a set of natural elements, but needs a concept that unites it, from a “soulful disposition” to an “exclusively human affective process” (SIMMEL, 2009, p.15). (All non-English citations hereafter have been translated by the authors)

The paper is structured as follows: 1. Presentation of the interpretative profile and the concept of environmental memory applied to ethnographic studies in the world of work, especially in line with the concept of ethnography of duration; 2. The Sinos River Valley, the leather industry and environmental conflicts; 3. Crises and rifts in the world of work, urban landscape transformations; final considerations.

1. DECOLONIZING THE TERRITORIAL OCCUPATION OF THE SINOS VALLEY REGION: ENVIRONMENTAL MEMORY

The emergence of tanneries and their impacts on the Sinos River basin are limited within, on the one hand, the psychosocial environment that accompanies Brazil's decolonization process and its adherence to the modern ideology of free labour, which was implanted with the arrival of the German immigrants in the Sinos Valley throughout the nineteenth century, as a contraposition to slave labour. Notwithstanding, there exists a profound dialogue between the urban-industrial development that resulted from this process and the old models of the predatory exploitation of natural resources characteristic of the conquest of the New World and its territories.

In this article, we address the concept of memory applied to studies on large contemporary metropolises, from the perspective outlined by Eckert and Rocha (2005), i.e., as a phenomenon that allows us to reflect on the temporal dialectic that encompasses

the interactions of individuals/groups and communities in the relationships with their territories of life. As a starting point, the authors take classical studies on the concept of memory (individual, social or collective), particularly those developed by Henri Bergson (1999) and later by Maurice Halbwachs (1990), updating it in the light of Bachelard's reflections (1994) on the dialectic of duration and of Ricoeur (1994) on time and narrative, in an effort to situate it in the context of complex modern societies

In Brazil, Eckert and Rocha's theoretical and conceptual path (2005, 2013) has been the basis of classic urban anthropology studies by Gilberto Velho, Ruth Cardoso, and Eunice Duhram, amongst others. Thus, for the case of this article, as Eckert and Rocha have indicated, the phenomenon of memory translates into the intelligent action of individuals/groups/communities in interpreting, over a determined period of time, the transformations that take place within their living spaces.

It is from within research on the phenomenon of memory, to obtain a greater understanding of the arrangements between city and nature, that the authors have proposed the concept of the ethnography of duration (ECKERT and ROCHA, 2013), in order to understand the spatiotemporal dialectic that guides social trajectories, biographical narratives, forms of sociability and the itineraries of individuals/groups as parts of the processes that construct urban landscapes.

Our research was conducted on the memories of the tannery installations along the Sinos River Valley (RS), adopting the perspective of the ethnography of duration. Our interest in the "environmental question" in the metropolitan contexts of the Sinos River basin has arisen from a combination of memory studies, in particular, from an ethnography of the memory of labour, focusing on the spatiotemporal dialectic that has guided the establishment of numerous tanneries along the Sinos River Valley (RS).

We have drawn inspiration from a study by Devos (2007, 2009) conducted on the archipelago just off Porto Alegre-RS, through which the author delineates the concept of environmental memory. According to this author, environmental memory encompasses an understanding of the ways in which the experience of urban life in a given territory expresses, within the threads of time, sets of knowledge and actions through which individuals interact with their environment, and the manner in which a determined ecosystem responds to them. The author particularly investigated the manner in which the "islets" dialogue with one another, in the arrangements of their memory games, with the concepts of *crise ambiental* (environmental crisis) or *questão ambiental* (environmental issues), through the force of social movements and actions of the government itself. Similarly, the author also analyses how this process transpires in the current landscapes of the islands, located along the banks of the Jacuí Delta, which were later transformed into Environmental Protection Areas (known as APAs) through laws, regulations and supervision, planning and the creation of institutions that seek to regulate the life of the local communities.

The concept of environmental memory allows us to dialogue with studies on political ecology by virtue of the contemporary appeal of the "environmental issue", a phenomenon studied by Leite Lopes (2006) who formed the concept of the *ambientalização da vida social* (the environmentalization of social life) or the *ambientalização dos conflitos sociais* (the environmentalization of social conflicts). Within this problematic, we situate our study regarding the environmental memory of the tannery industry in the Sinos River Valley, thereby establishing a close dialogue with the productions of the Working Group on Political Ecology of the *Consejo Latinoamericano de Ciencias*

Sociales (CLACSO) (the Latin American Council for Social Sciences). These productions express theoretical conceptions in two reference works: *La naturaleza colonizada, Ecología Política y Minería en América Latina* (*Colonized Nature, Political Ecology and Mining in Latin America*) and *Ecología política latinoamericana: pensamiento crítico, diferencia latinoamericana y rearticulación epistémica* (*Latin American Political Ecology: Critical Thinking, Latin American Difference and Epistemic Rearticulation*), of which, Hector Alimonda is one of its most important representatives (ALIMONDA, 2011; ALIMONDA et. al. 2017).

The concept advocated by Alimonda (2011, p. 23) of *naturaleza colonizada* (colonized nature), which problematizes the relationship between modernity and coloniality in Latin America, enables us to reflect on the implantation of an urban, industrial civilization in the Sinos River Valley from the Latin American stand of *colonialidad* (coloniality). From the perspective of the ethnography of duration, we conducted a brief study on the world of work in the region of the Sinos River Valley and the territorialities that derive from it.

It is not by chance that the foundational myths that narrate the creation of the city of Novo Hamburgo are based on narratives on the Sinos River Valley as the “land of opportunities”. A land formed by a valley bathed by a profusion of rivers and streams that were fundamental both for the survival of the families of early “settlers”, who generally established themselves on territories near the wetlands and floodplains, and later, for the commercial use of the waters, considering the implantation and growth of the leather-footwear industry.

It was not a question of isolating the predatory exploitation of the fauna and flora, of the lands and waters in the south of Brazil the Colony from those that had developed in Brazil the Empire and in Republican, democratic Brazil. In this sense, despite the differences in the scales of environmental impact that such gestures had provoked in Latin America as a whole, the large contemporary metropolises of Brazil could still reconfigure within its entrails a subaltern space, obliterated, thereby bowing to the needs of different regimes of accumulation. According to Alimonda (2011, p. 27), the rewriting of the narratives of modernity on the frontiers of New World ecosystems, from another viewpoint, which he terms a *giro decolonial* (a decolonial turnabout), could result in alternative readings of the hegemonic logics on the capitalist mode of production in Latin America, according to which the destruction of ecosystems may be thought of as a result of the complex relationships between human beings, which include violence and power and are mediated by natural resources (ALIMONDA, 2011, p.36).

One of the reasons for considering the incessant exchange between society and nature, in reference to the situation of (coloniality) (QUIJANO, 2005), is due to the fact that the Sinos River Valley is a region where intense German immigration occurred during the nineteenth century (in an effort to whiten the Brazilian Empire). Some of the most important industrial activities of southern Brazil were installed there - in addition to the *charque* (dried, salted meat) industry in the Pelotas region, and along the trails of mining exploration and export monoculture cycles - through the establishment of industries with certain degrees of catastrophic pollution and destruction, as will be seen below. For this author, colonial domination in America stimulated the creation of a colonial/modern, Eurocentric capitalism, which had the idea of race as the basis of domination.

Quijano (2005, p. 117) considered that the idea of race not only acted as a cod-

ification of differences between the conquerors and the conquered, but as the control and exploitation of labour, its resources and its products. From this angle, we are able to narrate the environmental memory in the Sinos River Valley, whilst being attentive to the *colonialidad del poder* (the coloniality of power) in the process of implanting an urban-industrial civilization, focusing on the leather-footwear production and the commodification of the labour force in the region, according to a racial division (QUIJANO, 2005: 119), not only in nineteenth-century Novo Hamburgo, but in the new global structure of labour control of the twentieth and twenty-first centuries.

It should be remembered that the myth of free labour in the Province of São Pedro attributed to the arrival of German settlers in southern Brazil was due to the coloniality of the control of labour (QUIJANO, 2005, pp. 120-121), i.e., because wage labour was concentrated almost exclusively amongst whites (one of its privileges) in contrast to the forms of self-employment, which remained a phenomenon restricted only to the indigenous, the blacks and the mestizos.

Considering the contributions of both these authors in the area of political ecology, we address environmental memory considering two points that include the transposition of an urban and industrial civilization in the Sinos River Valley, its logic of accumulation, and the political and social control over the territory: Portuguese colonization and German immigration into the Valley.

However, we cannot proceed without referring to the manner in which the “environmental issue” and the viewpoints of nature appear within the framework designed through the perspective of political ecology. We make particular reference to the paradigm changes within the developmentalist imagery of inexhaustible nature, which has taken shape as a progressive belief in Latin America since the early days of its conquest (SVAMPAS, 2011). Svampas (2011) believes that this developmentalist worldview has not only been transformed, but has also undergone successive updates, which the author pursues from the concept of eco-territorial turnabouts. Svampas highlights the new ecological currents, the vision of which emphasizes that natural resources, ecosystems and the environment are transformed by the crisis of the paradigm of progress and a worldview critique of an industrial society of consumption. According to the author, based on the studies of Martinez-Alier (2005), a movement that affirms the cult of wildlife as opposed to economic growth, signals the eco-efficiency belief in sustainable development or ecological modernization, and, finally, reinforces the environmental justice movement, accentuating environmental conflicts as a result of the international and territorial division of labour.

The symbolism of developmentalist imagery in Latin America is a tributary of the condition of modern coloniality represented in the region of the Sinos River Valley by the way in which its occupation has taken place and by the revitalization of the foundational myth that nourishes itself from the persevering image of the inexhaustible nature of its rivers and streams, brooks and rivulets, forests and floodplains that configure the Sinos Valley in the environmental memory of the region. Undoubtedly, from the angle of such ecoterritorial turnabouts mentioned herein, the memory of the environmental conflicts in the Sinos River Valley indicates layers of different times in the forms by which we may enter the narratives on the installation of an urban-industrial civilization in its ecoterritorial turnabouts. Such layers of time are linked through the redundancy and repetition of the developmentalist imagery in the midst of its ecoterritorial turnabouts.

At this point, it should be mentioned that it is not by chance that in our research on landscape, territorialities and the world of work, we have adopted the universe of

the Sinos River basin to study environmental memory in the region. From within a perspective of ethnography studies of duration, a river basin is not just a set of lands drained by a main river and its tributaries and sub-tributaries, in which the dynamics of its waters consists of the flow of the highest points to the lowest.

Defining the hydrographic basin for the studies on environmental memory, according to the paradigm of the political ecology adopted herein, is, on the one hand, fundamental for accomplishing an ethnography of the socio-environmental conflicts in multiple temporal scales, whilst remaining attentive to the distinct ecosystems where the various social groups construct a particular way of life. Within these terms, we may, on the one hand, (re) interpret the themes of the colonized nature or the coloniality of power within movements or economic cycles in the Sinos Valley, due to the installation of an urban, industrial civilization in the region, and on the other as part of semantic contents and their conducting myths that mark the styles of a moment or a time.

2. THE SINOS RIVER VALLEY-RS AND THE ENVIRONMENTAL CONFLICTS

The region of the Sinos River Valley, in terms of social memory, is associated with images of the first industrial activities in the state of Rio Grande do Sul. These images, in turn, are linked to German immigration and to the implantation of free, wage labour in counterposition to slave labour. From the extractive economy, followed by the agropastoral, established by the Portuguese colonizers, an urban-industrial economy was created, represented under the aegis of the immigrant labour force². The territorial occupation of the Valley of the Sinos River was marked by ethnic and racial distinctions, placing the different groups that inhabited the region in different positions. Thus, differences of race and ethnicity were part of the conflicts in the dispute over territory and its natural resources. While the blacks, natives, Portuguese descendants and Azoreans were associated with images of backwardness and economic stagnation, German immigrants were linked to representations of progress and development (ROCHA, NUNES & FIGUEIREDO, 2016).

The industrial development of the Sinos Valley throughout the twentieth century was accompanied by tensions and environmental conflicts due to the type of industrialization installed there, considered “dirty industry”, specifically due to the chemical process used in the treatment of leather, which resulted in high levels of soil and water contamination (NUNES, FIGUEIREDO & ROCHA, 2015). Nevertheless, environmental risks and their health impacts on the population of the Valley were often either silenced and neglected (FIGUEIREDO, LENZ & NUNES, 2014).

On the level of the social memory of the Sinos River Valley, there is the value of labour as an identity mark of the region and, therefore, a unifying force of the collective memory of the local urban communities (Nunes et al.). German immigration and work in tanneries and shoe factories are elements that shape the urban culture of the region. Throughout the twentieth century, both the apogee and the crisis of the leather-footwear industry were witnessed, causing rifts in the urban imagery around German immigration and the economic development of the region. Transformations that resulted from the displacement of certain industries, local capital and of labour to other regions of the country and even abroad, particularly to Northeast Brazil and China (PEREIRA,

2. Apart from the COREDE Sinos Valley division, which encompassed 14 municipalities, the leather-footwear industry was concentrated in several municipalities: Novo Hamburgo, Campo Bom, Estância Velha, Portão and Sapiranga.

2002), are elements that are present in the narratives of our research interlocutors.

From the perspective of registering reports that help to compose the collective memory of the world of work in the Sinos River Valley, this paper presents fragments of narratives by men and women considered protagonists in building the tannery industry in RS, hence, representatives of both labour and of capital. The research interlocutors were owners or former owners of tanneries, and had been affiliated or were affiliated to, for the most part, associations of the category. We also spoke to a number of employees who had occupied or occupy tannery management positions or representational entities of the sector.

We emphasize that we present fragments of these memories, which were recorded from the ethnography procedures of duration coupled with audio-visual resources for image and sound capture. In order to fulfil the interests of this paper, the recorded reports were sequenced and transcribed, whereby the living word passed through a set of several mediations: of the researchers in the interview situation, the audio-visual equipment, sequencing, transcription and editing of the written word. Notwithstanding the various levels of interpretation (GEERTZ, 1989) resulting from these mediations, our aim of pursuing the “native point of view” lies in the search for an understanding of the dynamics of local urban culture, the archaeology of gesture and form related to the occupation of the region, the exploitation of aquatic and terrestrial material and the changes in the urban landscape.

The tanning industry has always been treated as a villain in relation to the environment. And the *AICSul*, along with the union, has always defended the water treatment, so that the entrepreneur took care of the environmental area. This was also the price that the industries had to pay. Many years ago, there was a degree of competitiveness on a national level. Because here, we had to treat the water, install treatment plants and invest in equipment, while the rest of the country didn't. Here in Rio Grande do Sul, we invested in our industry, so much so that if we were to take the image of Estância Velha of years ago, things were very heavy. Because RBS (Rede Brasil Sul – a local TV station affiliated to TV Globo) came down here wanting to close the tanneries ... But this was also a price that we managed to achieve, through the entities, so that the associated companies then treated their water and protected the environment. This was from 1970. [...] Of course, this was always through the representation of the entity, there's good and bad, those who comply and those who don't. But the duty of the entity is to guide everyone to comply. (AICSul representative, 2015).

The meetings and dialogues with our interlocutors, representatives of the business sector in the leather industry, took place with prior recommendations from *AICSul* – the Tannery Industries Association of RS.³

In the above-mentioned report, *AICSul*, as a representational association of the leather industry, used to mediate conflict situations between the state's regulatory bodies - responsible for environmental issues - and the tanneries, a function it still currently holds. Our interlocutor mentioned the tensions resulting from the relationship with the media, which often featured reports on environmental issues and tanneries. Similarly, he also reveals the tensions between the peers themselves, that is, between local entrepreneurs, especially regarding their relationship with the Association, suggesting that not all of them complied with the guidelines and regulations, even if pressured by the Association.

3 The Tannery Industries Association of RS. An entity founded in 1976. Information at: <http://www.aicsul.com.br/>.

Our research subjects revealed that the effects of the environmental conflicts in the 1970s and 1980s, when the pressures of state institutions at their different levels - municipal, state and federal - and society in general, became more frequent and intense. The speech of the interlocutors moves towards the interpretation by Lopes (2006) who identified 1972 as being a milestone for the phenomenon that would come to conceptualize as the environmentalization of social conflicts, by virtue of the Stockholm Conference promoted by the UN, of which many states were pressured to legislate, supervise and adopt public policies for environmental preservation.

Svampa (2011, 2012), in discussing social movements in Latin America, also signals the process called the environmentalization of social struggles that leads to the formation of the ecoterritorial turnabout, when the discourse of local communities joined the environmental discourse in defence of territoriality, natural assets and biodiversity. The author highlights:

Common goods, food sovereignty, environmental justice and “good living” are some of the topics that express this productive crossing between different matrices. Certainly, in the first place, and against the grain of the dominant vision, within the framework of the ecoterritorial turnabout, natural goods should not be understood as commodities, i.e., as pure commodities; but neither exclusively as strategic natural resources, as it aims to circumscribe progressive neo-development. Above the differences, one language and another impose a utilitarian conception, which implies the ignorance of other attributes and valorisations - that cannot be represented by a market price, even though some have it. In contrast to this vision, the notion of common goods integrates different visions that affirm the need to keep out of the market those goods that, because of their nature as a natural, social or cultural heritage, have a value that exceeds any price.

To the concepts of the environmentalization of social conflicts (LOPES, 2006), the environmentalization of social struggles and the ecoterritorial turnabout (SVAMPA, 2011, 2012), we would also add the understanding of previous gestures to social and political discursiveness and arrangements surrounding environmental issues. We understand the environmentalization of social struggles and the ecoterritorial turnabout in a perspective capable of embracing aspects that are of the order of sensibilities and that are long-lasting, which allows us to speak of the archaeology of the memory of labour and environmental memory. In order to unite research procedures along the lines of the ethnography of duration, as proposed by Eckert and Rocha (2013), we consider it relevant to understand the spatiotemporal arrangements and their forms in the Sinos River Valley, i.e., the images and representations that act, over time, towards building a memory of labour and an environmental memory.

My grandfather, parents and uncles then came to the conclusion that the tannery had to leave. The city had begun to grow, to grow and there was trouble because of the residues and everything, because they poured into the streams. So, it was considered best to leave town and get out? Which most did. Most moved away from the centre. [...] The tanneries employed many people. There were the “megatanneries” too. In the centre of Novo Hamburgo there were three tanneries right in the centre, right where the Shopping Mall is today. There was the Jaeger Tannery, and the Silveira Tannery where Tumelero is today. In this “megatannery” ... I say “megatannery” when, in fact, it was just a tannery. The Silveira Tannery

was very big. It was right beside the stream. Jaeger was also alongside the stream. So, it was easy to throw that dirty water into the stream and walk away. But over time, it had to stop, it couldn't go on. The city grew and had to make those filters so that the dirt ... so that the water got clean. (Former owner of a tannery, Novo Hamburgo, 2015)

The gestures of labour and territorial occupation of the factory-industrial matrix in the Sinos Valley are part of the economic and political dynamics that are concerned not only with disputes over territory but also with the right to the unrestricted exploitation of natural resources. Conflicts, therefore, resulted from the direct dispute over the use of these natural resources (MARTINEZ-ALIER, 2005).

The stream to which our interlocutor refers is the Luiz Rau, which flows across the city from the centre towards São Leopoldo, where the mouth of the river is located that flows into the Sinos River. According to Schemes, Castilhos and Magalhães (2015), the main newspaper of the city of Novo Hamburgo, the *05 de Abril*, in the 1930s, was already printing material on pollution of the streams and alluded to the stench that emanated from their waters. The authors highlighted a quote from the newspaper *NH* in 1965, with a story that presents the Luiz Rau stream as “the worst pestilence of the city”. It was not the waste and the chemical elements thrown into the streams that were considered a pestilence, but the very streams themselves.

The memory of labour was therefore founded on the ideas of an inexhaustible nature, serving the progress and development of the valley. The urban-industrial economic model, which was intended to be superior to the extractive and agropastoral model (ROCHA, NUNES and FIGUEIREDO, 2016), revealed its contradictions and established tensions and conflicts throughout its duration, which help us to understand the social and political movements that other authors, from the perspective of a macroanalysis, have located from the end of the 1970s, when they talk about the environmentalization of social conflicts (LOPES, 2006) and the ecoterritorial turnabout (SVAMPA, 2011, 2012).

3. CRISES AND RIFTS IN THE WORLD OF WORK: LANDSCAPE AND MEMORY

(The processing) does not take the raw leather, the blue leather. Today, inside the state ... there are only two (tanneries) ... Just one, the Minuano, works with wet blue leather, which is the raw material. The processing starts after these processes [...] The leather is taken clean to process. The traditional tanneries, those here, were from the time when the leather came in as hides, and had to be depilated inside the tannery. That's why there was a smell in the water. That's why they had to have the (treatment)stations. [...] This doesn't exist anymore ... (AICSul representative, 2015).

So that's why we say there's the curing that we call the wet blue, which is the one that works the leather from this stage up until it is cured. So, curing it conserves it for up to a century. This is wet blue tanning. Then there are the people who work on the finish. The finishing technique is divided into two stages, from the wet blue to the semi-finished, or from the wet blue to the very final finish. Some tanneries only do the second stage, and don't paint the leather, they only reprocess it, to leave it soft, in the perfect physical condition to make furniture or shoes or that kind of thing (Director of AICSul, 2015).

Our interlocutors not only spoke of a work process that has transformed over time, but of a social and spatial division of the treatment and finishing techniques on leather that has had an impact on the urban landscape of the Sinos River Valley. The closure of some of the tanneries and the displacement of others to different regions of the country were spoken of with regret and dissatisfaction.

By paraphrasing Sansot (1983, p. 24), Eckert (2009) discusses the concept of landscape as “a system of exchanges between the sensitive world and the world of meanings.” The landscape is also territory, it involves becoming rooted and a feeling of belonging. The urban landscape of the Sinos Valley is linked to the memory of the footwear industry and the tanneries, which were mostly built along the banks of the streams. This landscape-territory also encompasses a set of technical skills, so it is not possible to separate the memory of labour from environmental memory.

The hides were brought from the slaughter house, salted. Not today though, that's also changed. They don't come salted any more, today the tanneries are next to the slaughter houses. They're usually installed on the other side of the street. The cattle are slaughtered here, then two hours later the leather is over at the tannery. This means saving on the labour costs of salting, the cost of the salt and time. You have to salt the leather, you have to dehydrate it. This dehydration process of leather, I remember well, my grandfather taught me this, it used to take twenty-one days. If the leather was salted, it would be stretched out and salt was thrown over it. They were then pressed into piles and left for twenty-one days until they became cured and would not rot anymore. [...] The leather spent twenty-one days in salt until it was dehydrated, and would then last up to a year. From six months to a year, so as to preserve the leather (Director of AICSul, 2015).

Perhaps one very significant reason, which we sometimes forget to take into account, when talking about why there are fewer tanneries in Rio Grande do Sul, is maybe the changes that have taken place with Brazilian cattle. In the past, Rio Grande do Sul was the state that slaughtered the most heads of cattle. Today, by far, Rio Grande do Sul has lost that position to the state of Acre. [...] 40 million heads a year are slaughtered in Brazil, in Rio Grande do Sul it's less than 2 million. That's insignificant for the rest of Brazil. And the movement of the tanneries has necessarily had to follow the movements of the slaughter houses, at least for the first curing operations and so forth (Director of AICSul, 2016). And we've got a lot of space here, [...] it's a little-known fact that: in Brazil, there are more cattle than people. The number of cattle in Brazil is larger than the population.

Nowadays, the expertise of finishing techniques for leather is still here in Rio Grande do Sul. The final leather finish, painting the leather for the final finish, is the expertise of our state. This is what the tanneries do here. Especially those tannery sectors that I've spoken about, which is the final stage of processing the leather, which we call the finishing sections. I mean, the people who finish the leather, paint the leather, this is somehow concentrated in Rio Grande do Sul. This is still a very important segment and Rio Grande do Sul still maintains hegemony (Director of AICSul, 2016).

The streams, the factories, the leather processing, the expertise are all images evoked in the narration of lived time. The memory of this expertise is not depleted in past times, but becomes restructured and chooses ways in which to remain in time. Once more, we turn to Eckert (2009, p.91) in his dialogue with Sansot (1983) to recall individuals and their experiences in the urban context, experiences that occur

through “cognitive reciprocities between a subjective world and an objective world”. The landscape-territory of the Sinos Valley unites our interlocutors within an *identidade narrativa* (narrative identity) (ECKERT, p.87, 2009). Permanence in the territory-landscape is comes through the expertise in the work of processing and finishing the leather, by possessing a skill that endures both in space and time. The Tannery School located in Estância Velha, which in 2015 celebrated its fiftieth year, has become a kind of icon of this expertise:

The first (tanning) class of the school was inaugurated in 1965. It was administered by the municipal secretariat of education (Estância Velha), and at the end of the year, five or six entrepreneurs who had become mentors of the school project, saw that this was not possible; that it was not working: the municipal secretariat as the secretary of the school. It just didn't work. And so they handed over the school to SENAI (the National Service of Industrial Learning, National Confederation of Industry) ... SENAI took over the tanning school. The tanning school was the first technical school for SENAI/RS. [...] Around 1,300 students have been trained in the tanning techniques over the 50 years. That is very few, but it was because it is a school with just one course and one that we regulate according to the market needs. So we don't offer courses with a thousand students, we never have done. There have been moments when were offered 60 places a year, at other times 30 places a year, and other times 90 places a year. We reached 90 places at the beginning of the 1990s. Today, we offer 35 vacancies a year, because that meets the market needs. (Employee at the Technical School of Tanning, Estância Velha, 2015). Formerly, the course was integrated with the high school and so the course lasted 4 years. Today, it's two and a half years, but it's no longer linked to the high school. Pupils have to go to high school at another institution. One of the entry requirements is attending high school, either in the second year of high school, or having completed it, and the course is two and a half years. That's two years here and half a year of internship, because we maintain a supervised internship project, which we think this is a gateway for the pupils onto the job market (Employee at the Technical School of Tanning, Estância Velha, 2015).

On the occasion of celebrating its 50 years, in 2015, the former School of Tanning became known as the Senai Institute of Leather Technology and the Environment, marking a new institutional moment, when it incorporated technical and vocational training into other technical and technological assistance responsibilities and applied research⁴. The new corporate name of the entity started to carry symbolically, a close dialogue with the issues related to the environment. This movement reinforced the interpretation of Leite Lopes (2006), when drawing attention to the environmentalisation of social life.

The transference of companies to other regions of the country, the closure of others due to the difficulties of competing on the global economic market, the difficulties of companies adapting to the requirements of environmental inspection bodies and the substitution of leather for other types of raw material in the production of footwear and bags are amongst the main elements highlighted in the speech of our interlocutors when they narrate the crisis of the leather-footwear production in the Sinos River Valley.

[...] Tanneries experienced serious problems as domestic consumption declined. When the first trials appeared of making shoes with plastic, we imagined, much like the World Cup, that we'd only sell one pair of shoes every 4 years. Except that these people started improving

⁴ According to information available on the site of the entity. Available at: <<http://www.senairs.org.br/pt-br/noticia/escola-de-curtimento-senai-comemora-50-anos>>. Viewed in: May, 2017.

with the technology, and the product was being imported and imported ... Today, there are substitutes that, well, look ... We've lived all our lives with leather, but hey! sometimes I get confused. Once, my wife asked me to see if something was leather or plastic (a shoe), I said: look, I'm going to have a glass of water over there, and I'll be back soon ... We looked at it, and suddenly it was very difficult to tell. There's plastic, today, plastic material, which actually smells of leather, that has defects, that have bot fly maggots, ticks, grain, like the original defects of leather. So, this evolution has made tanneries search for "another way out" and, luckily, they found it, taking care of furniture upholstery. Car upholstery is today one of the great markets for Brazilian leather, automotive upholstery. I'm talking about automotive, of big companies like Mercedes, Honda, Audi, BMW. A large part of the production of these companies is made with Brazilian leather (Director of AICSul, 2015).

Our interlocutors present both the crisis situation and the reinvention of the leather-footwear sector in Sinos Valley. Reinvention is not confined to the productive process, to the know-how, but refers to the "landscape-territory" itself (ECKERT, 2009), to the Sinos Valley, which, in its capacity as a "depository of a singular memory", encounters manners in which to remain an icon of leather-footwear production.

Now, today, we're talking about legislation. Today, you can't have any more of this, because there's what they call an NR12. A health and safety regulation from 2012 that enforces safety at work. It's totally absurd, there are thousands of absurdities. But there's one thing in particular, that if they consider a machine is unsafe for the operator to use, then the inspector decides that this machine must be taken out of service. It can't be sold. It has to be taken to pieces. It can't be sold as a whole, because there's a danger that someone may use it. You can be held responsible if someone gets hurt. Surely, this is history being lost. Now we're losing history because today we have no more security, not even to sell an old machine. You have to take it apart. There'll no longer be anything old. Everyone's selling them and taking things to pieces in this way. Selling one piece of the machine to one and then another to another, so as not to risk just one person buying it all and putting it all together again. And then afterwards, someone up there in the state of Acre is going to get hurt with an old machine that was bought down here. "Who did you buy it from?" – "Ah, the Tanning Technical School (Director of AICSul, 2015).

When we asked our research subjects about the memory of labour in the work processes linked to tanneries, we obtained the answer that the disused machines are immediately destroyed. According to them, by virtue of the health and safety regulations at work, the machines may not be preserved. Some of the old work processes were not even visually recorded through photographs or videos, and may only be identified through oral tradition, from the accounts of those who have actively participated in this process and who today are guardians of that memory.

The transformations experienced in the work processes in the Sinos Valley are not far from the transformations that have taken place on the urban landscape. There is "an eco-anthropological dynamic" linking the symbolic to the ecosystem and nature to culture (SILVEIRA, 2009, p.75). According to Rocha (2009), it is only possible to understand the urban and industrial ambience of modern Brazil, by taking into consideration its continuous process of destruction and recreation, a process that goes

back to the conquest of the terrestrial and aquatic materials of the tropics during the periods of Brazil the Colony and Brazil the Empire.

Rocha (2009), when discussing memory and heritage, proposes an understanding based on Bachelard's dialectic of duration (1994) and Simmelian formism, thereby defending the thesis that there is a particular aesthetic in Brazilian urban life, "deformed and disorderly", that is uncommitted to the conception of a linear, progressive historical time and of a "formal continuity of their material and immaterial heritages." From this perspective, the present time would not be a tributary of a stable past that moves toward an orderly and predictable future. On the contrary, it is shaped by the plurality of moments experienced, by an "aesthetic of disorder". Thus, the founding myths of cities and regions, though they were lulled by the ideals of progress, were more marked by the "discontinuous time of encounters, clashes, and disagreements between civilizations" (ROCHA, 2009, p.103).

The challenge of policies of memory and heritage in Brazilian cities is to find alternative ways with which to understand and register these memories marked by discontinuity. Rocha (2009) proposes new ways of recording collective memories and ethnological heritage through the use of audio-visual resources.

The research data presented herein in the form of fragments of narratives are part of an ethnographic collection that covers the experience of subjects in the daily life of the leather industries and in the interactions with the urban landscape, wrapped within the rhythms of time. Our intention is to contribute to the registration of collective memories through an urban anthropology that considers the discontinuous, distorted and disordered elements of urban aesthetics.

In our view, unoccupied buildings, ruins, and the destruction of machines are modes of temporal agency that have accompanied Brazilian cities from their very origins, a phenomenon that Rocha (2009, p.114-115) characterizes as creative destruction, as an attempt to domesticate time.

FINAL CONSIDERATIONS

The environmental conflicts narrated by our interlocutors are directly linked to the use of urban waters by tanneries. The urban aesthetics inaugurated by the development of the tannery industry along the Sinos River Valley has been marked by the physical and symbolic proximity of streams and tanneries. The streams are strong elements in the narratives and evoke an environmental memory in association with the memory of labour. Tanneries along the banks of the streams were recurrent images throughout the narratives. The streams become legitimate allies in the "progress and development" of the valley.

Nevertheless, the communities around the Sinos River basin have lived for long periods with enormous environmental impacts due to the use of chromium sulphate in the production process of leather tanning. However, by virtue of the final disposal of the waste products, the leather-footwear industry itself was one of the first to organize itself, in the State of Rio Grande do Sul and Brazil, along the lines of the River Basin Commissions.

The *Comitesinos* – the Commission for the Sinos River Basin Management, established by law within the National and State Systems of Water Resources with deliberative governance over water management in the region of the Sinos River Valley, was created in 1997, through the State Law for Water Resources 10,350 of December

10, 1994. In its plenary session, groups, with different interests and visions on the uses of waters in the Sinos River basin were brought together, including the simplest representatives of water users and environmental NGOs and entities related to mining, energy generation, industry and rural production, amongst others.

Despite efforts to implement new types of action and public control for the uses of the biophysical resources in the region of the Sinos River Valley, with the presence of the dynamics of capital, we may observe the almost total absence, outside the political arena of the *Comitesinos*, of social actors involved in (re)founding new arrangements of local urban communities with environmental resources. Even when faced with an explosion of environmental conflicts in the Sinos River Valley, during the 1980s, and the eco-territorial turnabout from the environmental struggles of the 1990s, such conflicts did not prove serious enough to motivate a new economic and territorial reordering of the region. It is the industrial model that continues to operate explicitly and implicitly in the identity and territorial brands of its urban communities, including Novo Hamburgo.

And even during the final decades of the twentieth century, in the presence of drastic changes in the regional and local economies, it is the industrial model of the golden age of the leather-footwear industry, which still remains a reference for the region of the Sinos River Valley. In other words, in the face of a solid process of deindustrialization of the sector, the production paradigm coexists, without great conflicts, with the environmental matrix propagated by the performance of the *Comitesinos* in the Sinos River basin since the 1990s. According to Arno Kayser (2005), this proximity comes from the movements in defence of the Sinos River Valley in the 1970s and the campaign promoted by a group of ecologists to implant treatment stations for the effluents from the tanneries in the 1980s, in order to defend its waters.⁵

In order to understand how this phenomenon takes place, in this paper, we have first attempted to present the founding gestures of Novo Hamburgo and the constitution of this urban and industrial landscape in the Sinos River Valley. Afterwards, we narrate the conflicts generated within the world of work, in view of the coloniality of power, the places of the labour force and the type of economy that formed in this relationship between the industrial world of work, leather-footwear production, eco-territorial turnabouts and the ecosystems of the Sinos River basin.

Thus, we have attempted to contribute to the deconstruction of the Eurocentrism present in the narratives of social sciences and nature, conveyed by the rationality of the modern West. Environmental memory studies, in the terms presented herein, are placed in counterposition to the approach whereby the phenomenon of time is seen as linear and progressive, and have followed the route of other authors, including Alimonda (2011), Todorov (1982) and Gruzinski (2006). Similarly, the ethnography of duration applied to the investigation of the installation process of the tannery industry along the Sinos Valley, and later the leather-footwear industry across the region, by being aligned to the studies of Quijano (2005), in his analysis of “the supremacy of the West,” reveals an effort to discuss the coloniality of power that has shaped these landscapes.

Thus, we have proposed that the installation of such industrial complexes and their knowledges and corresponding techniques are elements that have lasted as a constituent part of the “invention of America.” They have been revealed, in recent years, as illustrative examples of the process of annexing the territories of the former colonies in America, now as nation-states, into the modern/colonial world system. This is a

⁵ Related to this, please see <https://arnokayser.wordpress.com/2011/06/27/os-primordios-do-comitesinos/>.

process that has taken place via the use of violence in the submission of bodies, the silencing of voices and the destruction of original ecosystems, due to the extractive and energy megaprojects that have been installed across multiple times and spaces in Latin America. The tradition of studies on Latin American political ecology allows us to analyse the plurality of narratives that are the basis of city-nature relations in the context of modern complex societies.

The crisis of the leather-footwear industry in the valley, the closure and displacement of factories together with the environmental conflicts, have led us to consider the relationship between social memory, collective memory and heritage. We have questioned as to whether the environmental conflicts, which increased and gained visibility from the 1970s, in a certain way, have contributed to the silencing and stifling of proposals for public policy to preserve the memory and the tangible and intangible heritage of the leather industry, during a time interval from the late 1990s to the present moment (2018) marked by the discursiveness surrounding the crisis of the sector. The preservation of the industrial heritage, of this know-how, could constitute one of the dynamization alternatives of the local economy, thereby stimulating tourism, commerce and the offer of services. This is possibly one path in order to face this incessant process of the destruction and recreation (ROCHA, 2009) of urban life in Brazil. Nevertheless, the industrial heritage of the Sinos River Valley, due to its strong connection with environmental memory, could be preserved as part of a public policy integrated with environmental heritage, i.e., as a way of revitalizing and updating the defence and protection of waters in the Sinos River Basin.

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