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THE LEATHER-FOOTWEAR INDUSTRY AND THE URBAN SPATIAL STRUCTURE OF THE PARANHANA VALLEY

A INDÚSTRIA COUREIRO-CALÇADISTA E A CONFIGURAÇÃO DA ESTRUTURA URBANA DO VALE DO PARANHANA

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Abstract

This work addresses the widespread presence of the leather footwear industry in the Paranhana Valley region, which is part of the metropolitan region of Porto Alegre, in the state of Rio Grande do Sul, to verify its effects on the territory's spatial organization. Paranhana Valley, along with Sinos Valley, houses a wide cluster of the footwear production and exportation, having earned the title of the world's largest footwear cluster. However, from the 1990s onwards the region underwent a restructuring of its production bases, and this process led to changes in the factory's sizes. We aim to characterize the urban-industrial formation and consolidation process in the region through the analysis of secondary data, such as the number of establishments and jobs, as well as the mapping of industries and their outsourced companies. Regarding the results, we can cite: the migration's direct impact on urbanization, the urban fabric expansion along the regional transport networks and the outsourcing process that pulverized industrial activity throughout the territory, causing transformations at different scales.

Keywords: Urban space organization. Leather footwear industry. Paranhana Valley. Productive restructuring. Regional scale.

Resumo

Este trabalho aborda a expressiva presença da indústria coureiro-calçadista na região do Vale do Paranhana, inserido na Região Metropolitana de Porto Alegre, no Rio Grande do Sul, a fim de verificar os seus reflexos na configuração da estrutura urbana. O Vale do Paranhana, em conjunto com o Vale dos Sinos, abriga um grande aglomerado para a produção e exportação de calçado, angariando o título de maior *cluster* calçadista do mundo. Contudo, desde os anos 1990, a região passa por uma reestruturação nas bases produtivas, e esse processo acarretou transformações no

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porte das indústrias. Caracteriza-se o processo de formação e consolidação urbano-industrial na região por meio da análise documental e de dados secundários, como o número de estabelecimentos e empregos, e do mapeamento das indústrias e suas terceirizadas. Quanto aos resultados que foram observados, podem-se citar: a expansão do tecido urbano ao longo das redes de transporte regional e o processo de terceirização que pulverizou a atividade industrial na forma de micro e pequenos estabelecimentos, provocando transformações territoriais em diferentes escalas.

Palavras-chaves: Estrutura urbana. Indústria coureiro-calçadista. Vale do Paranhana. Reestruturação produtiva. Escala regional.

Introduction

In the process of urban-industrial development in Rio Grande do Sul - RS, the production of footwear industries concentrated in Vale do Sinos and Vale do Paranhana stands out. Initially, more artisanal and driven by German immigrants, they evolved gradually from small factories to reaching the position of large clusters responsible for the State's sharing rise of footwear exports in Brazil. The Sinos-Paranhana footwear productive arrangement is one of the oldest clusters of footwear companies in the country. It brings together industrial establishments of different sizes, which produce shoes, leather, components and machines, with varying levels of technological capability (CALANDRO; CAMPOS, 2016, p. 20).

The urban-industrial development of the region was triggered by the historical process which involves German immigration (1846) and the commercial centers formation with the railroad arrival (1903), till industrialization with the leather footwear factories (1970), when Brazilian footwear came to have significant importance in the national exportation scenario. In the 1990s, approximately 85% of national footwear exports were originated from Rio Grande do Sul (GORINI; SIQUEIRA, 1999). The leather footwear sector importance was not only linked to the volume of exports at the time, but also to job creation, which in 1999 was around 700 thousand positions (GORINI; SIQUEIRA, 1999).

However, with the increase in international competition — especially from Asian exporting countries — and the Brazilian currency appreciation in the first years of the Real Plan, a crisis shook the local economy. Since then, the region has undergone a restructuring of its production bases, and this process has led, among other things, to transformations in the size of the industries, driven by the outsourcing of part of the footwear production process. The productive rearrangement from 1990 onwards can be seen in the increase in micro and small establishments. Another effect was the gradual shift of some leather footwear industries from Paranhana Valley to other regions of the country, mainly the Northeast. Currently, some of these factory plants are maintained as administrative and technology development centers for shoe's design and production. As these activities do not need so much space, many pavilions are idle.

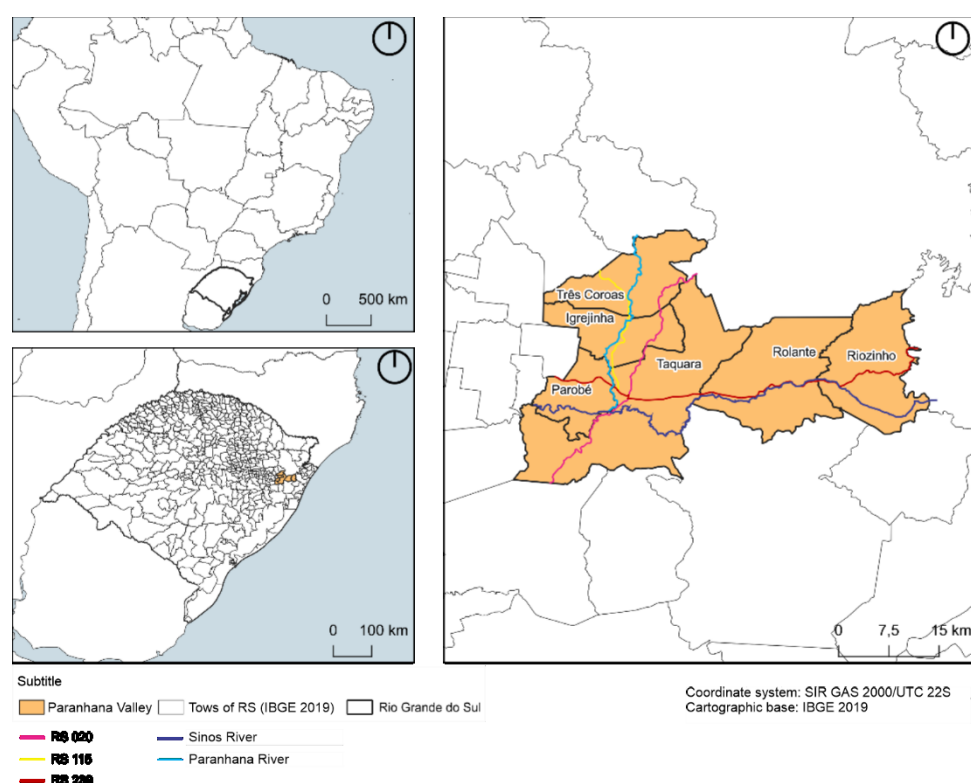
Notwithstanding, the cluster of companies in the Paranhana Valley, together with those in the Sinos Valley, as well as the ones from part of the Encosta da Serra region, can be taken as the nucleus of this industry in RS, forming Sinos-Paranhana Local Productive Arrangement (CALANDRO; CAMPOS, 2016). This productive arrangement of leather footwear companies from Sinos and Paranhana Valleys forms a cluster, that, according to Hansen et al. (2004), is still the world largest.

An area which requires further research, The Paranhana Valley – PV is a micro-region of RS that is about 70 km far from the capital Porto Alegre, 80 km far from the coast and 22 km far from the countryside hills. It comprises the towns of Igrejinha, Parobé, Riozinho, Rolante, Taquara and Três Coroas, and is bathed by the Paranhana and Sinos rivers (Figure 1). It has an area of just over 1.4 thousand km² (IBGE, 2020), representing approximately 13.7% of the MRPA – Metropolitan Region of Porto Alegre area. More than 200,000 inhabitants live in the region, according to estimates by the Brazilian Institute of Geography and Statistics (IBGE) for the year 2020, accounting for more than 4.83% of the MRPA population. More than 85% of the PV population is urban (IBGE, 2010). Parobé and Taquara are the largest towns (in terms of population), and Taquara is the oldest.

For a long time, PV was considered as an extension to the Sinos Valley. Currently, the region has its autonomy consolidated by the relevance in the transformation industry. In addition to the footwear industry, it has other attractors, such as the 'Faculdades Integradas de Taquara' – FACCAT,

a higher education institution that generates a pendular movement and, therefore, articulates the Valley regionally, uniting the north of the MRPA.

Figure 1: Paranhana Valley localization map



Source: Bosa (2021)

According to Campos (2019), the towns of Taquara, Igrejinha, Parobé and Três Coroas configure a low scale agglomeration with an important integration of influxes among themselves, including its urbanized area in the process of conurbation. In this case, an economic unit regionally characterized by densely populated centers and hinterlands in which the labor market is highly integrated to the centers, called Functional Urban Area – FUA Taquara, in which part of the PV's towns are located.

The region, which has always attracted many migrants (SEPLAN, 2015), went through a sharp economic transition since the 1970s, from a family farming base to an industrial economy, demanding labor from rural areas or other urban centers. From 1970 to 2019 its population growth 250%, that is, almost quadrupled. Even in the crisis period (the decade between 1990 and 2000), the PV remained attractive for migration, due to the strong presence of the leather footwear industry and the jobs resulting from it.

In general terms, one can define urban space as the set of different land uses juxtaposed with each other; and these uses define areas. Due to the dimension of their activities, industries are large consumers of space. The spatial action of the means of production owners, in this way, shapes the city, producing its own space and decisively interfering in the location of other land uses (CORRÊA, 1995). Thus, we assume that the development of the leather footwear industry directly influenced the production and structuring of urban space in the PV.

Given this context and considering that the urban structure is the result of processes that involve from individual actions to the implementation of large infrastructures that make up the territory, we aim at examining, in an evolutionary trajectory, the leather footwear industry participation in the Paranhana Valley cities, in order to demonstrate its effects on the spatial organization of the territory in question. We divided the article into three sections: methodological procedures; the Paranhana Valley urban space structuring configuration study; and final considerations.

Methodological procedures

After the literature review, we carried out documentary research and secondary data collection, such as: population growth rate, urbanization rate, migration, number of job vacancies, number of establishments and industries location. We collected data from official databases such as IBGE; the Annual Social Information Report – RAIS from the Ministry of Labor and Employment – MTE; the Siegfried Emanuel Heuser Economics and Statistics Foundation – FEE-RS; and employers' and workers' unions of the footwear industry in the PV town's. We produced thematic maps with QGIS software.

We analyzed the data considering categories of regional urban space production based on authors such as Corrêa (1995), who lists the agents responsible for urban space production and the spatial processes that give rise to the urban forms; Deák (2016), who deals with issues such as space, location and price as determinants for the structuring of a city; and Rubió (1997), who demonstrates urban growth criteria (demographic, economic and spatial). Finally, we represent some intervening factors in the production of the urban space at hand through diagrams, maps and graphics.

Paranhana Valley urban space structuring configuration study

The study consisted of a cross-sectional analysis of data on population, urbanization, migration, expansion of the urban sprawl, number of establishments in the leather footwear industry and their spatial distribution, as well as outsourced workers and the size of factories.

Population growth and expansion of the Paranhana Valley urbanization

The 1970s were an important milestone for the region. At that time the leather footwear industry began the process of expansion and growth in productivity. During that time, new technologies and modern production systems were introduced in the factories, and thus the workforce absorption increased, boosting the number of jobs in each unit. A view of this dimension can be seen in Tables 1 and 2. The data used are from the historical series from 1970 to 2010, and we sought, whenever possible, to verify current estimates indicated by IBGE.

Table 1 shows the population evolution of the towns, PV, MRPA and RS, together with the annual growth rate. In 1980, the Paranhana Valley population had a growth of 27.20% compared to 1970. In the early 1990s, PV had a 67.73% increase in its population compared to 1980, the highest growth in the considered period. Modernization and increased production in the footwear industries driven this growth, attracting more workforce (SCHNEIDER, 1996). In the 1990s a crisis hit, as mentioned. Then, from the 2000s, there was a reduction in growth to 32.20%, caused partly by changes in the national scenario, including monetary stability and trade liberalization. As a result, the sector lost competitiveness. The decline became even more noticeable by 2010, when the growth was 10.58%, which may also be related to the 2008 global crisis. One can see that from the 1990s the PV population growth was the highest.

Table 1: Total population evolution of the towns, PV, MRPA and RS (1970 to 2010)

Town, region and federative unit	Population				
	1970	1980	1991	2000	2010
Igrejinha	7062	12027	20514	26767	31660
Parobé	-	-	31995	44776	51502
Riozinho	-	-	3389	4071	4330
Rolante	14866	11769	13420	17851	19485
Taquara	31167	41376	42467	52825	54643
Três Coroas	6370	10470	15087	19430	23848
PV	59465	75642	126872	167720	185468
PV Annual growth	-	27,20%	67,73%	32,20%	10,58%
MRPA	1.799.069	2.519.004	3.281.499	3.783.096	4.032.062
MRPA Annual growth	-	40,02%	30,27%	15,29%	6,58%
RS	6.664.841	7.773.849	9.138.670	10.187.798	10.693.929
RS Annual growth	-	16,6%	17,6%	11,5%	5,0%

Source: Bosa (2021)

Table 2: Urbanization rates evolution in the towns, PV, MRPA and RS (1970 to 2010)

Town, region and federative unit	Urbanization rate				
	1970	1980	1991	2000	2010
Igrejinha	42,05%	69,68%	92,60%	95,38%	95,36%
Parobé	-	-	96,17%	97,01%	94,43%
Riozinho	-	-	52,16%	62,10%	63,46%
Rolante	16,68%	46,66%	74,29%	78,02%	78,57%
Taquara	58,62%	73,33%	82,65%	81,64%	82,84%
Três Coroas	37,55%	65,54%	78,62%	87,84%	86,15%
Paranhana Valley	43,91%	67,52%	85,49%	87,87%	87,72%
MRPA	84,37%	92,01%	94,52%	95,35%	96,93%
RS	53,33%	67,53%	76,56%	81,65%	85,10%

Source: Bosa (2021)

According to Table 2, urban occupancy predominates in the region. In some municipalities, urbanization rates were above 90% in 1991, 2000 and 2010, cases of Igrejinha and Parobé. In 2010 all towns had urbanization rates above 60%. It is worth mentioning Igrejinha that in 1970 had 42.05% and reached 2010 with 95.36%, the highest index of the PV; Rolante that increased from 16.68% to 78.57% in 2010; and Parobé, with an urbanization rate of 97.01% in the 2000s, the highest in the PV up to then.

Subject of discussion in the following item, the migratory process in the region had a significant role in the increase of population and, consequently, in the rise in urbanization rates, since these migrants settled mostly in the surroundings of factories, which were in the towns central areas.

The migratory process and the urban sprawl expansion of the Paranhana Valley

The migrations that started in the 1970s and intensified in the 1990s are the result of the economic emergence of the region due to the leather-footwear industry development (BASSAN, 2017). Therefore, these migratory movements were mainly motivated by economic aspects, professional qualification, and life quality. Part of the migrants contingent who went to the PV left rural areas (many from the northwest region of the state, where family farming predominates) that had not been economically transformed and, therefore, did not offer favorable professional offers and salaries to the farmers' descendants, leading them to the process of social mobility in search of alternatives in urban areas (BASSAN, 2017).

The migration flows data by towns was only collected in the 1991 and 2010 by the IBGE Census (Table 3). The 1991 Census was the most complete in this regard. The 2000 did not have data by towns, and the 2010 data once again included migration by towns. In 1991, the PV population was 126,872 inhabitants, of which 31.7% were migrants, that is, 40,208 inhabitants from outside the region, a rate about twice the RS amount. All towns in the PV had more than 10% of the population made up of migrants. Parobé stands out, where 50.4% of its population was migrant, followed by Igrejinha, with 35.20%. In 2010, migration rates decreased in most towns.

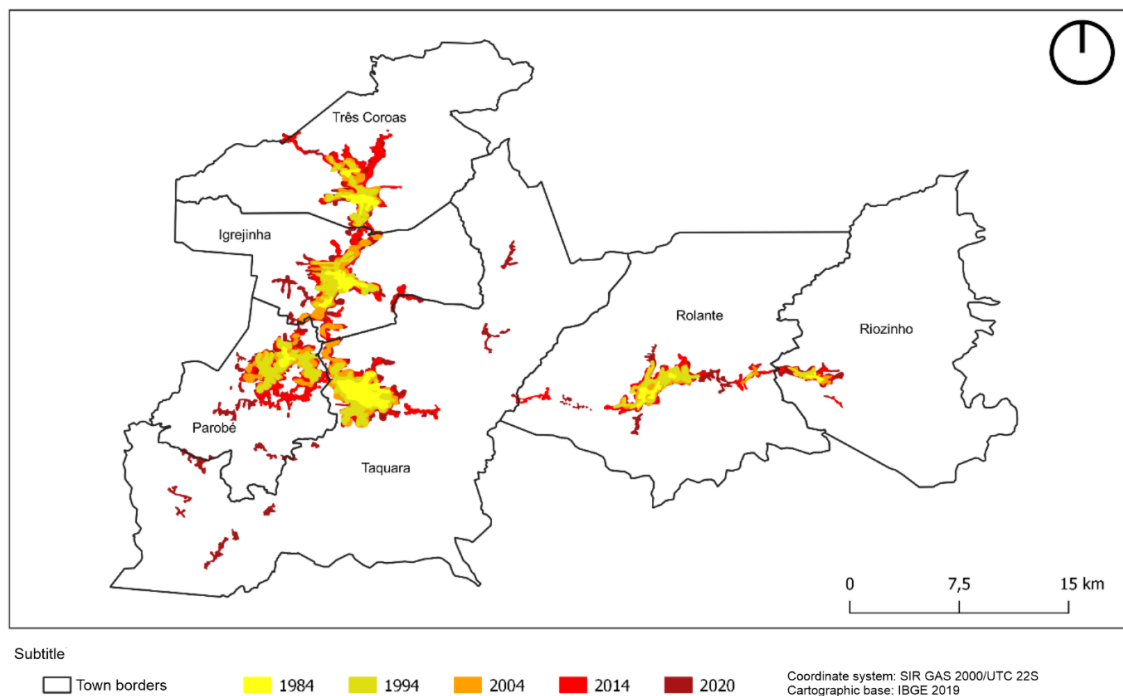
Table 3: Number of migrants present in the PV towns (1991 and 2010)
Towns, regions and federative units

Town, region and federative unit	1991			2010		
	Total	Migrants	%	Total	Migrants	%
Igrejinha	20.514	7231	35,2	31.660	6920	21,9
Parobé	31.995	16.139	50,4	51.502	11.596	22,5
Riozinho	3389	433	12,8	4330	692	16,0
Rolante	13.420	2267	16,9	19.485	3341	17,1
Taquara	42.467	9740	22,9	54.643	9991	18,3
Três Coroas	15.087	4398	29,2	23.848	5562	23,3
Paranhana Valley	126.872	40.208	31,7	185.468	38.102	20,5
Rio Grande do Sul	9.138.670	1.372.765	15,0	10.693.929	1.587.051	14,8

Source: Bosa (2021)

Another way of analyzing the urban growth issue is the spatial criterion (complementary to the demographic). Figure 2 shows the urban sprawl evolution in the PV. From 1984 to 1994, one can see that the growth of Igrejinha, Rolante and Três Coroas expanded to connect to the nuclei that orbited the central area in 1984. The growth of Parobé, Riozinho and Taquara, however, happened continuously with the 1984 area. From 2004 and 2014 new dispersed urban centers emerged in all cities. In Rolante and Riozinho this growth takes place in the RS-239 road direction. In 2020, some of these new nuclei connected to the central area, and others remained isolated as they are former district headquarters. One can see, in general, that the expansion takes place towards the external parts of the initial areas of the urban areas of the municipalities, where some urban voids remain. The growth of the urban area coincides with the industries expansion of presence, as shown by the following data on the number of establishments.

Figure 2: Overlapping of the urban areas evolution in the PV (1984 to 2020)

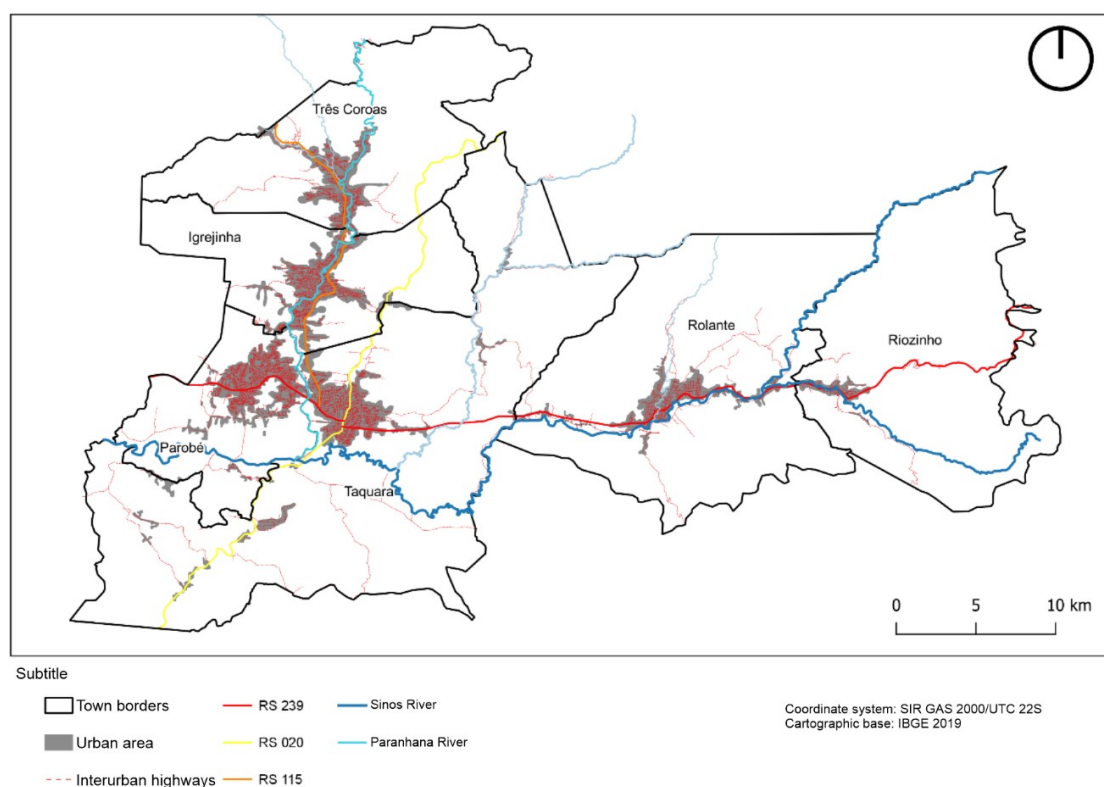


Source: Bosa (2021)

One can also verify that the growth extension of the urban sprawl took place along the road axes and natural borders (Figure 3). There are two perpendicular axes formed by highways, the RS-

239, which crosses the PV in an East-West direction; and the RS-115 in a North-South direction. Still, a third axis constituted by RS-020 cuts in the North-South direction the urban area of Taquara. In addition to two other axes, which are also perpendicular: the Paranhana river, which crosses the valley in a north-south direction, and the Sinos river, which runs in an east-west direction. Part of them are connections built back in the times of territorial formation, enabling the flow of industrial production, and related to the evolution of transport forms, from river navigation to railways that later turned into highways.

Figure 3: Map of the urban area of PV (2020) showing highways and rivers



Source: Bosa (2021)

Number of establishments and the spatial distribution of the leather-footwear industries

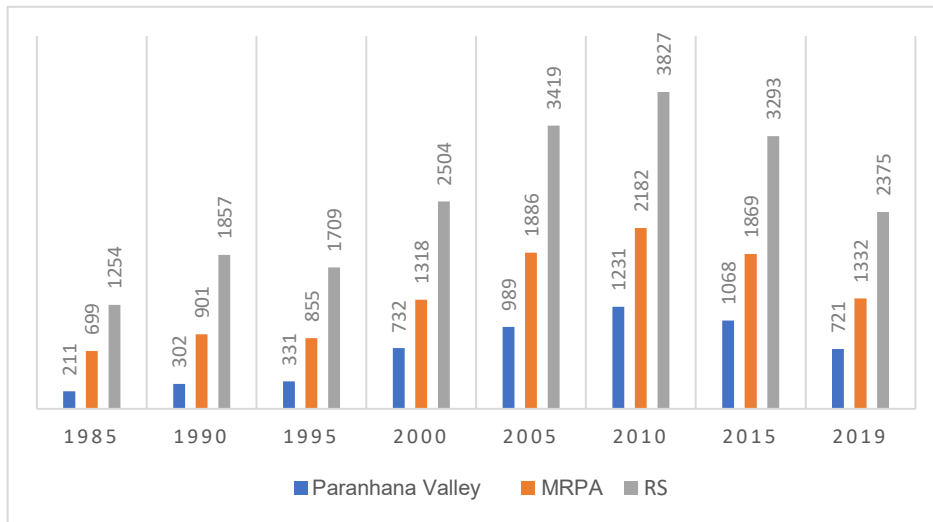
We present data from the historical series of RAIS below, with numbers of establishments³ and employment relationships in the leather-footwear industry from 1985 to 2019 in a comparative way between PV, MRPA and RS (Figures 4 and 5). When examining the number of leather-footwear industries, the increase of these establishments occurs in the same intervals of population increase, with some exceptions.

The beginning of the series, in 1985, is the growth span in footwear exports and, therefore, when there is an increase in the number of establishments (Figure 4). Between 1985 and 2010, the number of companies in the PV multiplied almost six times, reaching 1,231 establishments in 2010, the year with the highest concentration within the period. This growth is repeated in the MRPA and RS, with 2010 being the peak year. But, when analyzing the entire period, from 1985 to 2019, the growth was 3.41 times in the PV, since there was a decrease in the establishments in the years 2015 and 2019, when the increase was only 0.58 times compared to 2010. In MRPA and RS, the growth was even smaller compared to PV.

³ The RAIS (Relação Anual de Informações Sociais - Annual Social Information List) survey is carried out at the establishment level, considering as such the units of each company spatially separated, that is, with distinct addresses. These are recent data and they are fed annually.

The significant number of employment contracts produced by the leather-footwear industry is another fact that demonstrates its importance for the PV. Figure 5 shows that 2010 registered most of the employment contracts, with 32,520 people, in the series from 1985 to 2019. In the MRPA and RS, 2005 was the highest, with 65,172 and 126,784 employees, respectively. At the beginning of the period analyzed (1985), there were just over 20 thousand jobs in the PV, while in the MRPA there were 92,196 and in RS 132,214 jobs. During this period (1985 to 2019), the average number of jobs remained above 20 thousand in the PV, decreasing in 2015 and 2019. While the MRPA kept above 60 thousand jobs until 2010 and the RS maintained an average of 100,000 jobs until 2010. From 2019 onwards, there is a decrease in jobs places compared to all other years in the series, an outsourcing period that we will discuss below.

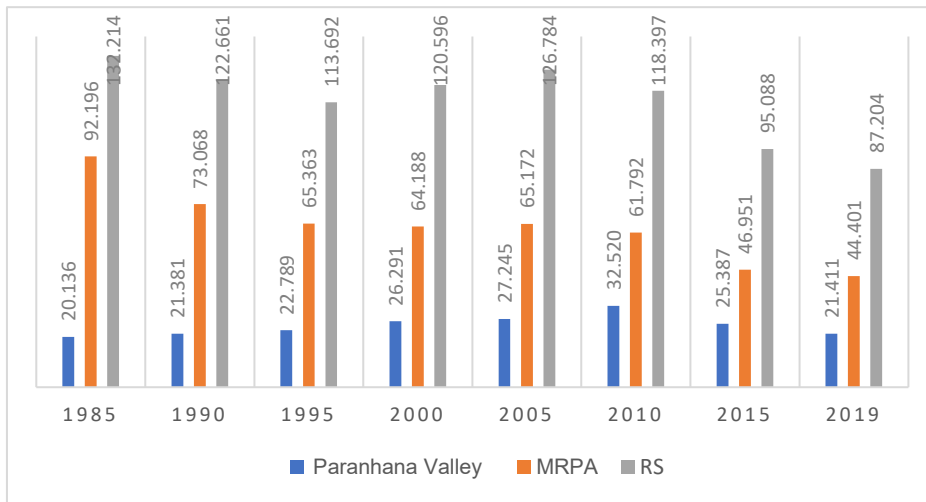
Figure 4: Number of footwear plants evolution in the PV, MRPA and RS (1985 to 2019)



Source: Bosa (2021)

At the beginning of the series, Taquara was the town with the highest number of job vacancies, followed by Igrejinha and Três Coroas. In Riozinho, the first industries only started their activities in 1995. In 1990, while some towns, such as Taquara, lost job positions, Parobé registered a growth of 201.85%. As of 1995, all towns have increased the number of jobs until 2010, the peak. Parobé appears at the top, with 10,056 jobs (19.53% of the total population employed in this sector), followed by Igrejinha, with 7,668 (24.22% of the total population employed in this sector), Três Coroas, with 7,313 (30.66% of the total population employed in this sector), Rolante, with 4,130 (21.20% of the population employed in this sector), Taquara, with 2,388 (4.29% of the population employed in this sector), and in last, but with an increase of 48.23% compared to 1995, Riozinho, with 965 jobs (22.30% of the population employed in this sector). The last two years of the series, 2015 and 2019, recorded significant declines in job positions in the four towns. From 2010 to 2019, Parobé had a loss of 35.54%, Igrejinha a loss of 38.05%, Três Coroas a loss of 38.04% and Taquara a loss of 56.20% in employment in the footwear industries. Riozinho's loss is less in absolute numbers than the one of the other three towns. However, considering the size of its population, it represents a relevant fall of 27.80%.

Figure 5: Evolution of the number of employment bonds in the footwear industries in the PV, MRPA and RS (1985 to 2019)

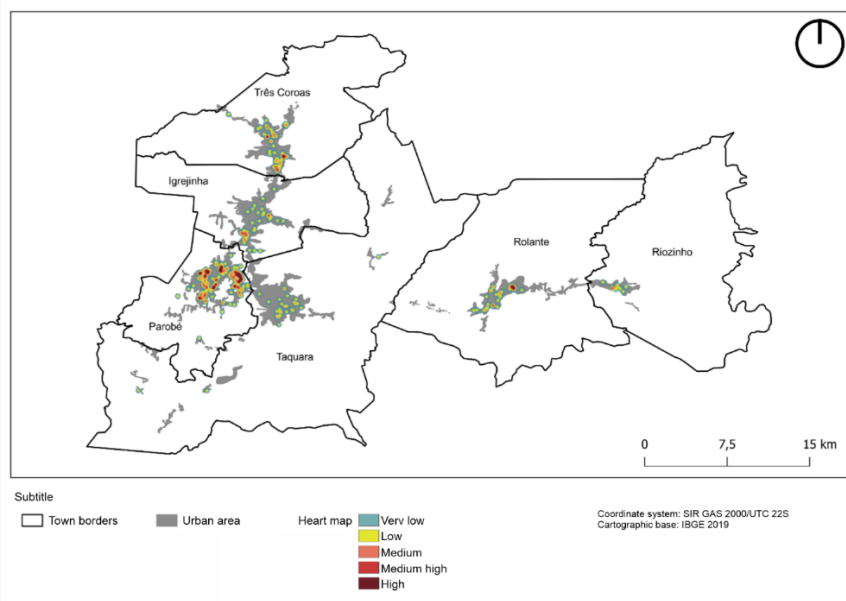


Source: Bosa (2021)

The leather-footwear industries distribution is widespread across the territory of the PV, as shown in Figure 6. This data was obtained from the unions of workers in the footwear industry and the unions of the footwear industries from the PV. It take into account affiliated industries in action until 2020, namely: Igrejinha, 39 establishments; Parobé, 192 establishments; Riozinho, 10 establishments; Moving, 35 establishments; Taquara, 28 establishments; and Três Coroas, 52 establishments.

The heat map (a data interpolation) in Figure 6 uses a radius of 300 meters to represent the concentration and intensity of the leather-footwear industries presence. One can note that the town of Parobé is where the presence of industry is most striking, followed by Igrejinha, Rolante and Três Coroas, corroborating data from IBGE and RAIS/MTE. In 1985, Taquara was one of the towns with more footwear establishments, but it reached 2019 with a much lower amount compared to other towns. Riozinho, which in 1985 had no industry, also has a large presence of industries in its territory in proportion to its urban area, the smallest of the municipalities in the PV.

Figure 6: Distribution of the establishments of the leather-footwear industries in the PV (1970 to 2010)

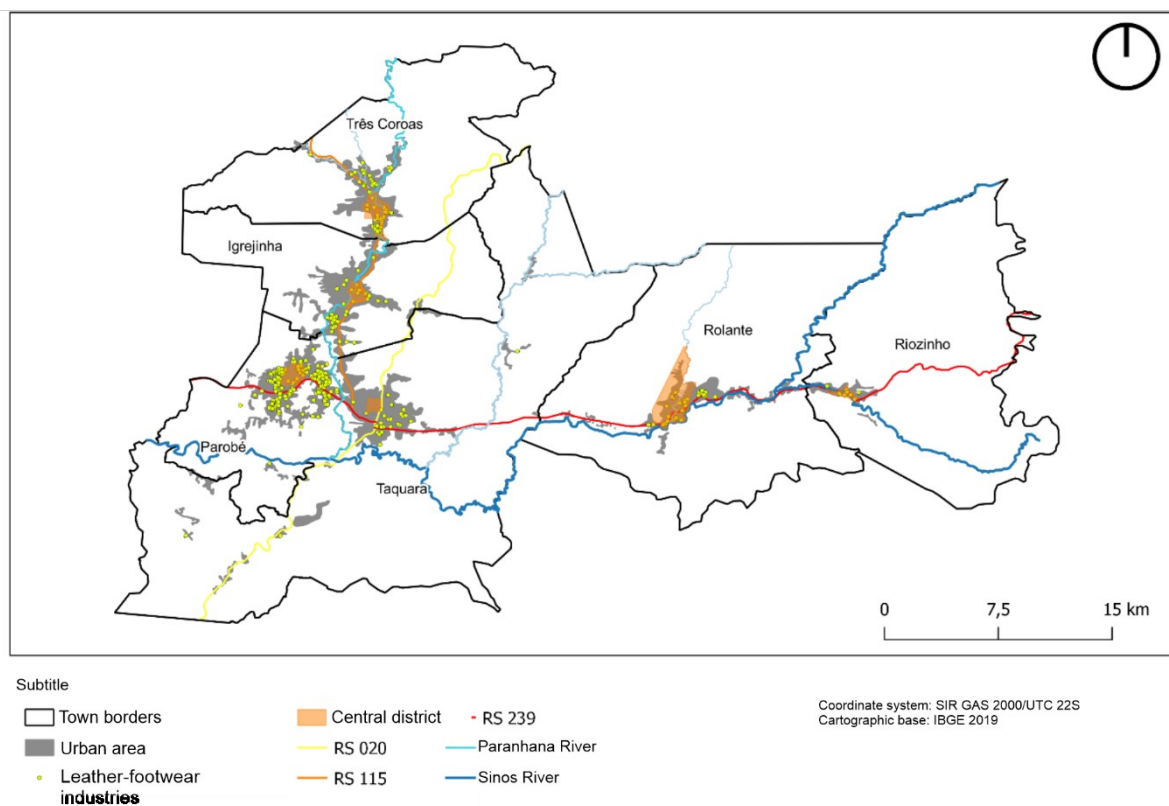


Source: Bosa (2021)

The central neighborhoods in the towns from the PV, as in so many others, are the main historical, commercial, and cultural centers and, therefore, have a strong influence over the other neighborhoods, acting as attractors. The state highways form the intercity connections, and rivers set out the boundaries. Adding these tiers of information to the map, its close relationship amongst the establishments of the leather-footwear industry in the region is clearly visualized (Figure 7).

Taquara is the only town where there are no industries in the central district, but two of them are located nearby. The other towns have a considerable number of industries in the central area: Igrejinha, 7; Parobé, 22; Riozinho, 8; Rolante, 20; and Três Coroas, 18 establishments. The central area, according to Corrêa (1995), constitutes the focus not only of the city, but also in the extensions far from urban areas. It concentrates the main commercial, service, public and private management activities, and interregional and intra urban transport terminals. Therefore, the central neighborhoods in the PV towns are where all types of flows converge, and the activities that are found there are relevant for the entire population.

Figure 7: Relation between the leather-footwear industries with the downtown districts, highways, and rivers in the PV



Source: Bosa (2021)

As for state highways, all towns have plants close to them; given the easy production flow and access to industries. The proximity to rivers occurs in some cases, as they cross the urban areas of the towns. In earlier periods, the rivers were responsible for distributing the footwear production, yet artisanal. On the other hand, this proximity can be harmful, as industries generate a large volume of waste, which is often dumped in water resources. The residues discarded in the Paranahana River by the industry in Igrejinha, Três Coroas and Parobé have an impact on the Sinos River.

The concepts of location and space derive from the social practice of production and reproduction in the social division of labor context (DEÁK, 2016). Industrial activities, as part of production and reproduction processes, require a location, and between these locations an interconnection is established according to the interaction between those activities. Such interconnection is the constituent matter of space and defines how space is structured. In this case, we consider that industries localization in the PV modifies both the place and performance of other socioeconomic activities. In Parobé, for example, Calçados Azaleia has established in its

surroundings a series of community facilities and housing projects throughout the town. Nowadays, many pavilions have been deactivated, due to productive restructuring, and configure urban voids, spaces that change the town's scenery and quality of life.

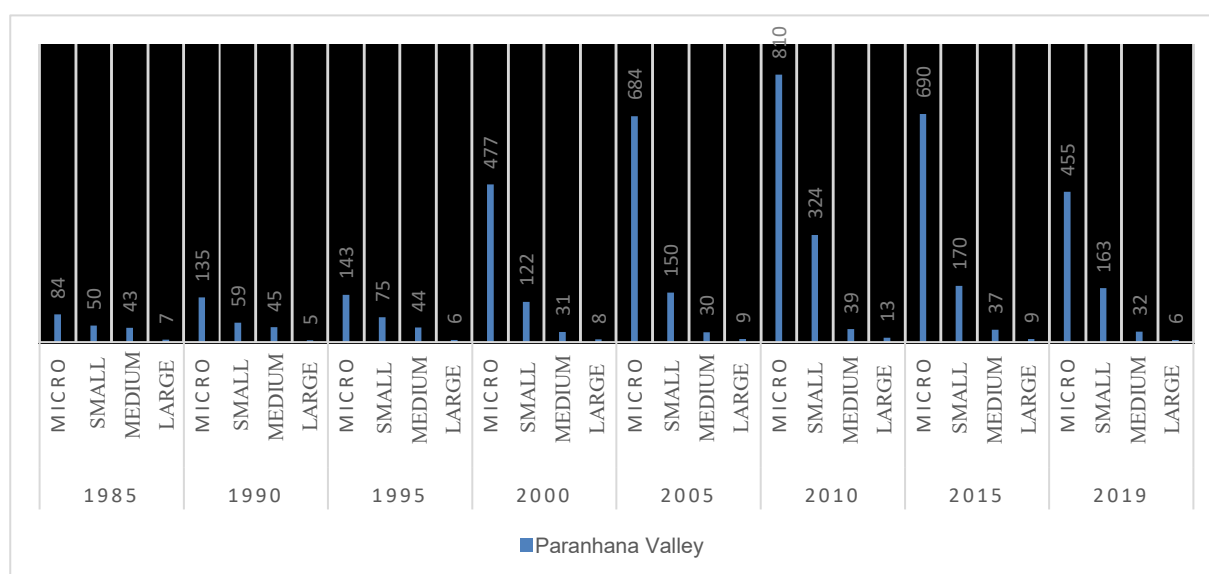
The outsourcing phenomenon and the size of industries in productive restructuring

The reduction in the average number of jobs per establishment shown above (Figures 4 and 5) confirms a scenario being restructured since 2000. It is the economic transformation that the region has undergone in recent decades, due to, among other aspects, the intensification of the globalization process and international competition. The restructuring of the production form of the leather-footwear industries caused a phenomenon that had a great impact on the region and enabled the quick spread of the *ateliers*, which are micro and small establishments with up to 99 employees, where shoes can be produced in parts or by parts. They are forms of production outsourcing that have contributed to the operating costs reduction, stimulated specialization, and increased productivity, but weakened the relationship between employer and employees since the responsibility is now managed by many new companies, without a formal work contract, generating savings with labor charges, among others.

Data from RAIS/MTE between 1985 and 2019 show an increase in micro and small establishments since 2000 in the PV (Figure 8). The categorization of the establishments size we used follows the IBGE standard, which determines: Micro — establishments with up to 19 employees; Small — from 20 to 99 employees; Medium — from 100 to 499 employees; and Large — establishments with more than 500 employees.

It is possible to establish some scenarios. The first one is from 1985 to 1995, when the trajectory of the four sizes analyzed is practically stable, with the towns of Igrejinha, Taquara and Três Coroas standing out in the number's variation. The year of 1995 is the one with the biggest increase, mainly of micro and small establishments, and medium and large establishments remained stable. The second scenario is from 2000 to 2010, when there is a rise in the trajectory of all the four sizes analyzed in all towns, with an emphasis on Igrejinha, Parobé and Três Coroas. The year of 2010 is the biggest high, with the highest numbers registered in micro and small establishments. It is also in this period that large establishments reach their peak, being present in all towns of the PV. Amongst the four large factories in Parobé and Três Coroas two had more than 1,000 employees each. The third scenario is from 2015 to 2019 and registers a fall in the establishments numbers of the four sizes. The sharpest reduction was in micro and small establishments that yet remained the establishments with the greatest representation. Large establishments, which were not present in all towns, had their numbers reduced by about 50%, showing the same levels of 1995. In all scenarios, medium-sized establishments remained virtually stable.

Figure 8: Evolution of the number of establishments in the footwear industries by size in the PV (1985 to 2019)

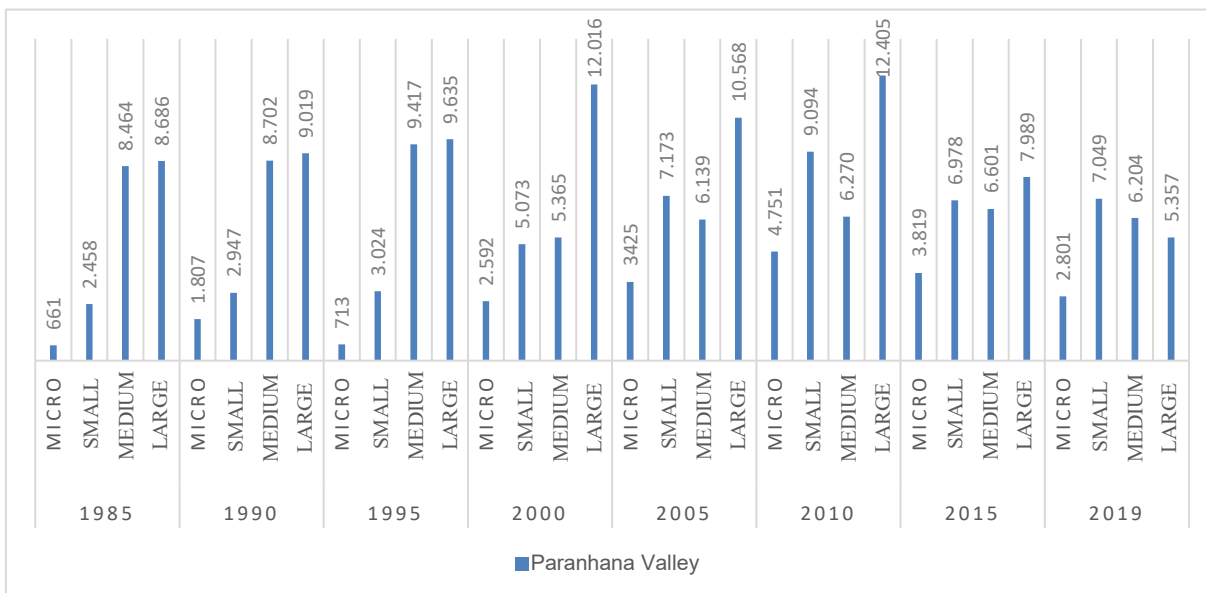


Source: Bosa (2021)

The number of employment relationships by size of establishments shows the increased participation of micro and small establishments in the series from 1985 to 2019 (Figure 9). It's worth to note that this data only considers the jobs with a formal employment relationship, which may leave out a part of informal workers. These workers must be a significant part, given the increase in informality that the *ateliers* expansion has brought.

Within the period from 1985 to 1995, medium and large establishments were responsible for most of the jobs, both with numbers above 8 thousand, reaching more than 9 thousand jobs in 1995. Since 2000, the participation of micro and small establishments has increased considerably, and the sum of the two exceeded 7,6 thousand jobs, while the medium-sized ones employed just over 5 thousand, and the large ones around 12 thousand. In 2010 the participation of micro and small establishments increased by 6 thousand positions, reaching 13.8 thousand; medium-sized establishments had 6,2 thousand; and large ones, 12.4 thousand. From 2015 to 2019 there is a general decrease, reaching the following numbers in 2019: micro and small establishments with 9,8 thousand positions, medium with 6.2 thousand and large with 5.3 thousand positions. Thus, the last year of the series demonstrates an inversion in the distribution of employment relationships in the footwear industries, placing micro and small establishments at the top of the job positions in the PV. This finding confirms the productive restructuring which started in the 2000s.

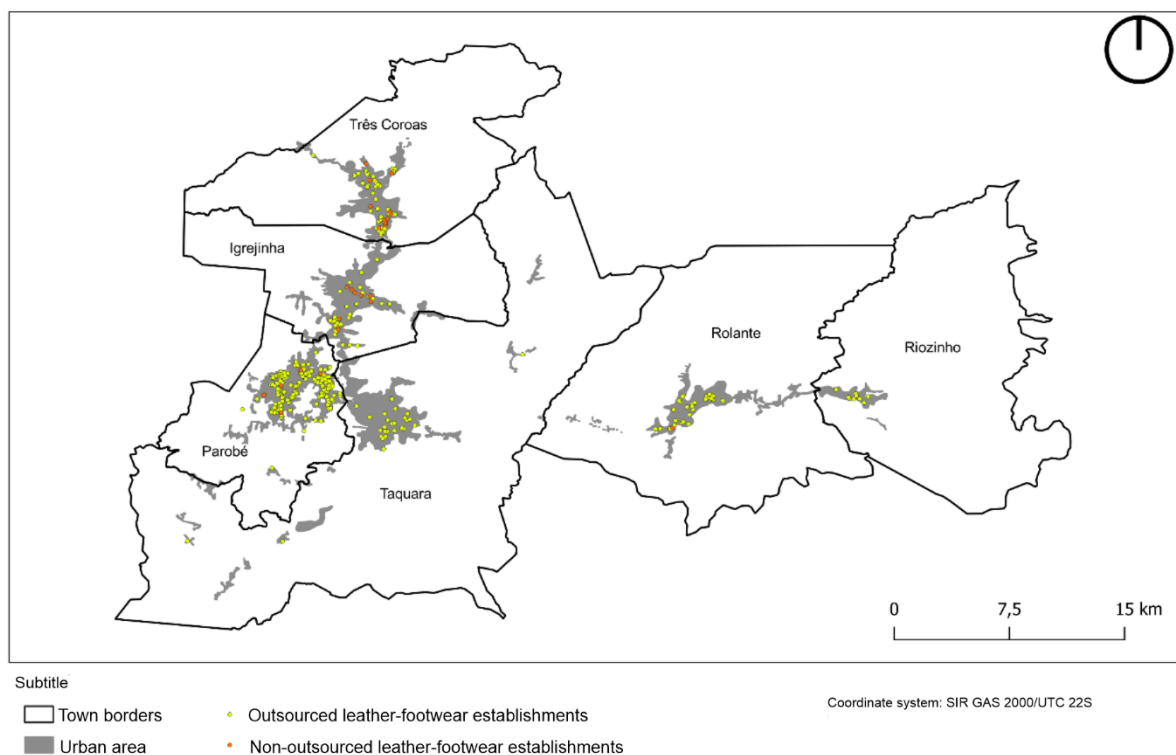
Figure 9: Evolution of the number of employment relationships by size of establishments in the PV (1985 to 2019)



Source: Bosa (2021)

Figure 10 illustrates the outsourced industries distribution in the PV. The map shows a significant concentration of outsourced industries in the region. According to data collected from the workers unions of the footwear industry of the PV, the distribution is as follows: in Igrejinha, there are 31 outsourced and eight non-outsourced establishments; in Parobé, 187 outsourced and five non-outsourced establishments; in Riozinho, 10 outsourced establishments and none non-outsourced; in Rolante, 34 outsourced establishments and one non-outsourced establishment; in Taquara, 28 outsourced establishments and none non-outsourced; and in Três Coroas, 41 outsourced and 11 non-outsourced establishments.

The change in the industries size brought by the productive restructuring had an impact on the regional urban fabric. If before, large industries located in the central areas of cities were a center of attraction for workers and services, with the new way of producing, this has dispersed in many parts throughout the urban area. More people settled around these points, demanding new infrastructure, what is one of the key points for the spread of urban occupation in the cities of the PV nowadays.

Figure 10: Outsourced and non-outsourced establishments in the PV (1970 to 2010)

Source: Bosa (2021)

Final considerations

As results, the main territorial effects related to the leather-footwear industrial activity in the region that we observed in this research were: the occupation of the central regions of the towns by large establishments in the beginnings; the expansion of the urban fabric along regional transport networks; and the outsourcing process that pulverized industrial activity in the form of micro and small establishments. Furthermore, it is possible to say that the migration resulting from the offer of jobs in the leather-footwear industry is one of the social phenomena that most contributed to the spatial transformations of the PV.

From the 1970s onwards, the region went through a sharp economic transition, moving from family farming to an industrial economy based on leather-footwear production, demanding labor from rural areas or other urban centers. This transition encompassed several social, economic, and cultural factors that orbited the industrialization process of the leather-footwear sector. Throughout the 1980s, this situation has deepened, resulting in the attraction of many migrant workers to the leather-footwear pole due to the modernization of agriculture in RS. Since 1985, the automation of some phases within the production process took place, and the footwear industries were pressed by international competitiveness to adopt other forms of production management.

The changes are associated to the adapting attempt, of the leather-footwear industries, to the new international scenarios, which at this point are in line with post-Fordism and Toyotist ideas and that in the towns is translated into a rapid process of urbanization. With the leather-footwear industries insufflation, districts of Taquara, like Parobé, became municipalities. But it was in the 1990s that these transformations were mostly intensified and reflected in the PV, when there was a 67.73% increase in its population compared to 1980. Urbanization rates rose, going from 43.91% in 1970 to 85.49% in 1991. And these rates continued to grow until 2010, according to data from RAIS/MTE in the historical series from 1985 to 2010.

Such transformations, built by the productive restructuring of the leather-footwear industries, strongly linked to outsourcing and the reduction in the industries size, have a direct impact on the region urban structure. While neoliberalism was the political-economic change promoted by the State to overcome the crisis of the 1970s, productive restructuring was the response

of industries to this capitalism crisis and the collapse of Fordism/Taylorism. Together, neoliberalism and productive restructuring shape a new idea of working and living in the region and in the world. Thus, production began to be concentrated based on market demand, so the goods accumulation and industrialized products were abandoned. Different requirements emerged, such as maximum efficiency and the highest possible speed in the manufacturing process. In the PV, as seen, this restructuring was noticed from the 1990s onwards, and more significantly from the 2000s.

One of the characteristics of productive restructuring is the outsourcing of part of the processes, and the footwear production chain has adopted this practice significantly. Outsourcing has reduced the number of large shoe-producing establishments and increased micro and small establishments, which is the main territorial reflex brought by the productive restructuring. One can see the phenomenon in employment relationships, which, according to data from RAIS/MTE, suffered an inversion in their proportion. In 1985, large and medium-sized establishments held most jobs in the leather-footwear industry in the PV, which was not sustained until the end of the studied series, as micro and small establishments became the ones that employed most workers by 2019.

This is not a mere replacement of machines by new technologies, but also a profound reorganization of social and work relations. The common workforce, who were previously called dogsbodies, are being viewed in a more individualistic way by the factory owners now, which has changed the scene inside the factory. To "be a good team player" an expression widely used in the factory line, defines a type of worker who do not see the company as a place which buys and exploits their work, but as one that is part of their lives, which will help solve their problems and make their individual wishes come true. Currently, the industries that remained based also have little relationship with the nearby space, strictly related to the distribution of services and administrative activities. Because of this, the region's municipalities are still learning how to reorganize themselves in the face of the reordering of the productive forces and to interpret this new form of spatial organization. The consequences of the restructuring are expanded to the production of urban space in these towns, which reflects on the transport, communications, services, and network infrastructure constitution. As an example of this, Calçados Azaleia has built in Parobé a nursery, a health center, and a sport association (sports courts, culture center and leisure facilities).

From the spatial point of view, in short, the configuration resulting from the processes related to the leather-footwear industry presence in the PV is manifested in an extensive urbanization, where the towns and urbanized areas carry itself the urban-industrial conditions of production (and reproduction). Urban development occurs with a distribution in large territories without urban fabric quality, showing some empty spaces and a series of services spread throughout, having low connectivity and density. In a current perspective, considering the year 2020, the urban areas of the municipalities head towards conurbation, which has already been noticed among the towns of Igrejinha, Parobé, Três Coroas and Taquara.

Therefore, based on the analyzed data, this work presents a possible analysis of the region reality and points out that the strong presence of the leather-footwear industry in the towns of the PV, still its main attractor, directly determined the territorial transformations at different scales and at different times.

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