URBANIZATION, ECONOMIC DYNAMICS AND TERRITORIAL TRANSFORMATIONS IN THE INTERMEDIATE CITIES OF SANTA CRUZ DO SUL (BRAZIL) AND SAN CARLOS DE BARILOCHE (ARGENTINA)

Abstract

The topic of urbanization and territorial transformations in two Latin American intermediate cities is addressed: Santa Cruz do Sul, in the central region of Rio Grande do Sul, Brazil, and San Carlos de Bariloche, in the northern region of Patagonia, in Río Negro, Argentina. Similarities and particularities in the urbanization process are analyzed, highlighting the dynamics and recent economic changes, the regional centrality and the spatial transformations experienced by the two cities. Methodologically, based on the concepts of intermediate cities and social production of urban space, the secondary data on urbanization and the urban economy collected by IBGE in Brazil and INDEC in Argentina is analyzed. The process of urbanization of both medium-sized cities is amplified and complexed as a result of their relationship with global productive chains such as tourism and tobacco, but also of changes in their urban economies and spatial dynamics through processes of urban expansion, fragmentation and segregation.

Keywords: Intermediate cities. Urbanization. Urban economic dynamics. Territorial transformations. Socio-spatial consequences.

1 PhD in Human Geography (UFSC). Professor of the Postgraduate Program in Regional Development at the University of Santa Cruz do Sul, Santa Cruz do Sul – RS, Brazil. E-mail: rlls@unisc.br
2 PhD in History. Associate Professor in the Bachelor of Economics at the School of Economics, Administration and Tourism of the Andean branch of the National University of Río Negro, and researcher at the Interdisciplinary Center for Studies on Territory, Economy and Society (CIETES), Argentina. E-mail: hcivitaresi@gmail.com
3 PhD in Agricultural and Consumer Economics. CONICET researcher. Associate Professor in the Bachelor of Economics at the School of Economics, Administration and Tourism of the Andean branch of the National University of Río Negro, and researcher at the Interdisciplinary Center for Studies on Territory, Economy and Society (CIETES)-Argentina. E-mail: evelyn.dv.colino@gmail.com
4 PhD student in Urban and Regional Planning at the Federal University of Rio Grande do Sul, Porto Alegre – RS, Brazil. E-mail: faccincarolina@gmail.com
Resumen

En el artículo se aborda la urbanización y transformaciones territoriales en dos ciudades intermedias latinoamericanas: Santa Cruz do Sul, en la región central de Río Grande do Sul, Brasil, y San Carlos de Bariloche, en la región norte de la Patagonia, en Río Negro, Argentina. Para ello se comparan similitudes y particularidades en el proceso de urbanización, destacando las dinámicas y cambios económicos recientes, la centralidad regional y las transformaciones espaciales experimentadas por las dos ciudades. Metodológicamente, a partir de los conceptos de ciudades intermedias y producción social del espacio urbano, se analizan los datos secundarios sobre urbanización y economía urbana recopilados por el IBGE en Brasil y el INDEC en Argentina. Como resultado, se observa que el proceso de urbanización de ambas ciudades medianas se amplifica y complejiza como resultado de su relación con cadenas productivas globales como el turismo y el tabaco, pero también de cambios en sus economías urbanas y dinámicas espaciales a través de procesos de expansión urbana, fragmentación y segregación.


Introduction

The current global urbanization process is intensifying to a very high degree (BRENNER, 2018) as a condition and product of the capital reproduction process (HARVEY, 2011). In this expansion, the urbanization of cities (not only metropolises, but also medium or intermediate cities), in general, has presented, among some of its main characteristics, progressive increase in population, economic dynamics characterized by productive restructuring with increasing specialization, and expansion of the participation of services. Likewise, urbanization implies intense spatial expansion of the urban fabric, something that often comes in tandem with unequal distribution of population and public facilities and services in the urban space, in addition to processes of spatial fragmentation and urban segregation.

This article analyzes the recent urbanization process of two Latin American intermediate cities and intends to understand their existing demographic, economic and socio-spatial characteristics, the changes in economic dynamics and the recent territorial transformations in the intra-urban extent. The cities in question are the intermediate cities of Santa Cruz do Sul (located in the central-eastern region of the State of Río Grande do Sul, Brazil) and San Carlos de Bariloche (located at the northern edge of Patagonia, in the Río Negro Province, Argentina).

Such cities are important regional urban centers, for having significant centrality in the regions where they are located through urban economies with important industrial sectors and the provision of varied public and private services, and for being part of global production chains. They play an important role as regional centers, attracting regional migratory flows and commuting for work and study, in addition to polarizing a wide geographic space in the context of the regional territory through trade and service flows. Santa Cruz do Sul is also the main tobacco agro-industrial hub in Brazil, participating in the global leaf tobacco market, while the city of San Carlos de Bariloche stands out as one of the main tourist centers in Argentina and worldwide.

This article aims at analyzing, through a comparative study, the similarities and particularities that exist in recent urbanization processes and the territorial transformations of these cities. Methodologically, the theoretical contributions of Sposito (2007), Bellet and Llop (2004), Llop and Usón (2012), and Gorenstein, Hernandez and Landrischini (2012), regarding the concept of medium or intermediate city and its application in Latin America, and Lefebvre (2002) and Harvey (2005), when addressing the social production of urban space and urbanization processes, were used. Secondary data relating to the urbanization process and the urban economy used in the analysis were collected by the demographic censuses conducted by IBGE (2010), in Brazil, and INDEC (2010), in Argentina. Likewise, primary data obtained from the local governments of the two cities and the state/provincial governments were used. After surveying and organizing the data in electronic
spreadsheets, the information was handled and analyzed with charts, tables, and thematic maps, using QGIS and Adobe Illustrator software.

In addition to this introduction, this article consists of four other topics. In the first one, we introduce our interpretation of what an intermediate city is. In the second and third topics, we carry out the characterization and analysis of recent urbanization, urban economy and territorial transformations in the cities of Santa Cruz do Sul and San Carlos de Bariloche respectively. Finally, in the fourth and last topic, we identify the main specifics and similarities that exist in the recent urbanization and territorial transformation processes of both cities.

Intermediate Cities and Urbanization

The concept “intermediate city” is under construction. There is no consensual definition in this regard, given the specificity and diversity of the urban classification and typology used in each country. Some authors emphasize a definition based on demographic criteria; others focus on the centrality and urban functions of cities (SPOSITO; SILVA, 2017).

Unlike large cities, which concentrate all kinds of resources and play multiple roles, it is possible to say that intermediate cities are those that seem to develop with a peripheral role. However, they have assumed a new role in contemporary urban systems, as they concentrate a large part of the world's urban population and have the highest population growth rate (BELLET e LLOP, 2004).

The act of considering a city as “intermediate” depends on the specific territorial context of such city, which is determined by factors such as its historical composition, demographic dynamism, economic structure, administrative borders (urban area), connections with infrastructure networks (routes, airports, railways, digital infrastructure — internet and IT services) and also characteristics of the institutional context itself (MICHELINI E DAVIES, 2009). It is also necessary to consider the levels of economic activities resulting from the confluence of transport and logistics systems, in addition to the spatial reconfiguration arising from the incorporation of new activities to the agricultural sector, which, in turn, redefine industry, trade, services and urban functions and centrality of intermediate cities (SPOSITO, 2007).

Intermediate cities have the advantages of urbanization without suffering the negative consequences of megacities. Because they are smaller, they have the potential to offer more balanced and sustainable relationship systems (with the exception of urban settlements associated with productive enclaves that are intensive in natural resources), better city management, greater governance and citizen participation, less environmental impact and lower levels of social conflict and cost. However, these cities tend to have lower social and cultural diversity, less economic competitiveness (as opposed to metropolises), and greater difficulties in accessing the main information and capital flows (BELLET E LLOP, 2004).

In the last two decades, in general, the process of growth and urbanization of intermediate cities in Latin America has been accompanied by some greater complexity of their urban economies, by the growth of their populations, by the increase of their territorial centrality in the regions where they are located, etc., which reproduces, in the local context, the processes of expansion, fragmentation and spatial segregation, as it has been seen for some time in metropolitan centers and areas.

Urbanization, tobacco agro-industrial complex and territorial transformations in the city of Santa Cruz do Sul, Brazil

The intermediate city of Santa Cruz do Sul has 131,000 inhabitants and, since 1970, has been the main center for the commercialization and industrial processing of tobacco in Brazil. The city is home to the Brazilian branches of the main multinational corporations operating in the global tobacco and cigarette market.

The recent processes of urbanization and economic development in Santa Cruz do Sul reflect, on the one hand, its strong integration and dependence on the world tobacco and cigarette market, but also, on the other hand, reveal the effects of the polarization and centrality that the city exerts on the region, by attracting capital and people flows, as well as by providing commercial activities and public and private services, which make it an important and strategic node in the state’s urban network.
The recent process of urbanization

In the last three decades, the city of Santa Cruz do Sul has shown significant changes in the intensity and content of its urbanization dynamics, referring not only to the increase of its population, but also to the expansion of its urban area and to changes in the spatial configuration of the city.

In 1991, the city had a population of 78,955 inhabitants; in 2010, it had 105,184 inhabitants, which represented an increase of 33.22% in its population. Between 1991 and 2010, the annual geometric demographic growth rate of the city’s population was 2.90%. This figure is higher than that of the region where the city is located (which was 1.37% in the same period). The city concentrates around 88% of the total population of the municipality, which has high urbanization rate, even higher than that of the region (63.01%), of the state (85.1%) and of Brazil (84.4%) (IBGE, 2010).

The increase in the city’s population during this period happened noticeably in reason of new residents being drawn from the rural area of the municipality, as a result of the process of fragmentation of rural properties, in addition to people coming from other municipalities in the region and the State of Rio Grande do Sul. The intention of pursuing higher education, more job opportunities in retail and service provision, and temporary work offers during the industrial tobacco processing season have attracted new residents to the city.

The increase in the urban population and the consequent demand for new housing, allied to highly speculative dynamics of the local real estate market, has promoted intense expansion of the urban area through the increasing incorporation of rural land plots to the urban perimeter. Image 1 illustrates this process by showing the successive expansions of the urban perimeter (defined over time by municipal legislation) and its great expansion, which occurred mainly from 1995 onwards.

**Image 1:** Expansion of the urban perimeter (1938–2019) and new developments and gated communities between 2000 and 2010

The city’s recent urbanization process has also shown progressive densification of urban land occupation, especially in its central area and nearer the campus of the University of Santa Cruz do Sul (UNISC), in the northern quadrant of the city, a result of the increase in urban population and urban verticalization. On the other hand, there has been a significant increase in new low-income and middle-class housing developments, nearer the south and southeast of the city. A significant part
of these new residential projects has been financed by federal public policies, such as the Minha Casa Minha Vida Program. Simultaneously, there has been an intense process of production of numerous housing developments and gated communities, whose target audience has been the high-income population. Such real estate projects are located noticeably in the north and northeast quadrant of the city, around and along the green belt of Santa Cruz do Sul, in areas on the urban periphery, which a few years ago were still used for rural purposes or were reserved, waiting for a favorable moment in terms of real estate appreciation (Image 1).

This process of urban expansion has simultaneously presented a spatial pattern of urbanization characterized both by the discontinuous diffusion of the urban fabric through the main connection routes between the central area of the city and its peripheral spaces, close to the limits of the urban perimeter, and by the fragmentation in the way the urban fabric was formed. In this sense, spatial fragmentation occurs through discontinuity and existence of empty spaces between the more compact and densely occupied urban area in the central part and periphery close to the city center, and those areas that are farther from the central zone. This spatial configuration pattern of the new housing developments in the city has been characterized by the production, especially on the outskirts of the city, of a fishbone-like urban structure (Image 1).

**Dynamics of urban economy and recent changes**

The most recent dynamics of urbanization in the city equally reflects the process of economic restructuring that the municipality of Santa Cruz do Sul started to have from the beginning of the 1990s. From that time onwards, the traditional and historical economic matrix structured in the tobacco agro-industrial activity, in the non-durable goods industry (such as food, clothing, and beverages) and in the equipment goods industry (such as metallurgy, metalworking, and rubber artifacts) begins to show major changes.

In the tobacco agro-industrial sector, there is an intense process of centralization and concentration of capital among multinational companies that control the leaf tobacco market in the region and in the country in an oligopsonistic manner. Consolidations and mergers among tobacco multinationals grew considerably during this period, which significantly reduced the number of large companies that started operating in the sector (from 16 companies in 1970 to 5 in 1995). There was a growing process of reduction of workforce employed in the sector due to the closing of plants, automation and rationalization of production processes involving the production and management structure of these companies in their operational strategy in the tobacco production areas in southern Brazil.

Work in tobacco processing plants is organized according to the annual tobacco harvest. Thus, tobacco is grown and harvested on rural properties in the Vales region and in southern Brazil from May to October. Then, from November to April, industrial processing takes place in the plants of multinational companies located in the city of Santa Cruz do Sul. This work involves the participation of permanent employees and, mainly, seasonal employees, hired only during the period of the industrial harvest. Currently, there are approximately 9,000 workers, the majority (around 6,000) of them being seasonal employees (CAGED, 2019). The great majority of tobacco seasonal workers are women who live on the outskirts of Santa Cruz do Sul. But there is also a significant number of employees who commute daily from neighboring municipalities to work in the plants, returning to their homes at the end of their work shift.

In this restructuring process of the tobacco sector, the Brazilian headquarters of these tobacco multinationals, for the most part, remained in the city. The executives and senior employees of these corporations continued to reside in the city, or were transferred to it, representing part of the demand for new real estate products such as gated communities.

It is also worth highlighting another characteristic of this economic restructuring of the city: the expansion and greater specialization of the service sector, which ended up consolidating Santa Cruz do Sul as the main regional economic hub. In addition to the activities related to trade and specialized services linked to the tobacco chain, which have traditionally always played an important role in the urban economy and employment, other specialized public and private services have expanded their participation in the context of income generation and job opportunities in the city.

The consequences of this restructuring are evidenced in the data related to the participation of each economic sector making up the local Gross Domestic Product (GDP) in the period from 1999 to 2014. An increase from 47.49%, in 1999, to 61.81%, in 2014, is observed in the participation of the trade and service sector. The industrial sector, traditionally a pillar of the municipal economy,
reduced its participation from 48.42% to 35.63%. In addition, data related to the annual Gross Value Added (GVA) of each sector also show these changes in the municipal economy. Image 2 shows that between 2002 and 2017, while the Industrial GVA went from BRL 977,693.00 to BRL 1,661,836.00, with relative increase of 70%, the Services GVA went from BRL 664,053.00 to BRL 3,478,753.00, indicating relative increase of 424%. Since 2005, the GVA of the service sector has remained higher than the Industrial GVA, which reveals the new importance of the tertiary sector in the municipal economy (IBGE, 2017).

Regarding the dynamics of employment, it can also be seen in Chart 1, based on data from the General Unemployment Register (CAGED, 2019), that between 2004 and 2019, even if the industrial sector continued to be the one providing more employment opportunities in Santa Cruz do Sul, there was a decrease in its participation: from 64.7% to 47.9% in all job positions in the city. The effects of the national economic crises of 2007 and 2014 should be taken into account in this context. In turn, in the same period, there was an increase in employment in retail from 12.5% to 19.5%, in addition to growth in employment in the service sector, from 16.5% to 26.5%.


During the last 20 years, urbanization has also strengthened the city’s positioning in the regional and state urban fabric through the development and consolidation of its function as a regional hub of commercial activities with certain specialization and services related to education and health. Another strengthening aspect in this sense is the fact that the city houses administrative units of federal and state public agencies that operate in the region, such as the Federal Police, the Federal Revenue Office, the Federal Courts, the Brazilian Social-Security Institute, the State Office of Education, the State Health Office, the State Police, among others. The data related to the Government’s GVA, shown in Chart 1, clearly reveal the growing importance of this sector in the city’s economy, which between 2002 and 2017 had an increase of 460% in the amount collected, from BRL 107,566.00 to BRL 603,407.00.

In the context of higher education, the foundation of the University of Santa Cruz do Sul (UNISC) in 1993 is worth mentioning. The institution’s growing provision of new undergraduate and graduate programs attracts students from several municipalities not only in the Vale do Rio Pardo region, but also from neighboring regions (Vale do Taquari and Vale do Jacuí) and other regions of Rio Grande do Sul. Many of UNISC’s 10 thousand students now live in the city, boosting the urban economy and especially the real estate market, as there is heavy demand for apartments, rooms, and houses for rent, both in areas close to the university campus, in the northern quadrant of the city, and in central areas, due to the proximity to services and the existing commercial structure.

Another important change in the local economy, arising from the creation and consolidation of the university in the last 25 years, was the creation of technological innovation environments, such as the Incubator of Technology Companies (ITUNISC) and the Science and Technology Park (Tecnounisc), which made the establishment of new companies possible and attracted technology-based companies from the fields of information and communications technology, biotechnology, environmental technology, and industrial systems and processes.
Many of the university graduates also remained in the city after completing their programs, aiming at establishing themselves professionally and setting up new specialized businesses, in fields such as architecture, accounting, engineering, business administration, law, psychology, dentistry, medicine, nutrition, pharmacy, and physiotherapy, and also retirement homes, nursery schools, and vocational schools. The progressive increase, greater diversification, and growing specialization of health services, through the expansion and modernization of hospitals and the public and private network, have made the city an important regional hub for the provision of health services.

Furthermore, the growth in supply and these new types of urban services have been accompanied by changes in the dynamics of the real estate market, with the growing demand for modern spaces for the establishment of new businesses. This has been promoting real estate reappreciation in central and intermediate areas between the center and the outskirts of the city. Hence the growing commercialization of new buildings that are produced specifically to house offices and that are used by those new self-employed professionals.

The consequences of this economic restructuring have been seen in the dynamics of urbanization through important territorial transformations in its urban space.

**Territorial transformations**

Over the past thirty years, the city’s recent urbanization process has been characterized by intense and uneven urban development. The main consequences of this include the progressive expansion of the urban perimeter, the increased verticalization of the city in the central area, and the emergence of irregular occupancies by the low-income population, in addition to the production of new real estate products — the construction of gated communities in intermediate and peripheral areas of the city.

One of the main changes in urbanization dynamics has been the new ways of using urban land in peripheral areas recently incorporated into the urban perimeter. Until the late 1990s, the outskirts of Santa Cruz do Sul were characterized (especially in the south, southwest, and southeast of the city) by the presence of irregular and/or clandestine urban occupancies, with shacks in areas without urban infrastructure (or with precarious infrastructure) or public housing units built by the municipal government. In the north and northeast quadrants, at that time, areas used for rural purposes (recently incorporated into the urban perimeter) predominated.

From 2010 onwards, intense production of gated communities begins to take place on the northern and northeastern outskirts of the city, with varied urban projects, which combine the high constructive urbanization standards of the developments’ internal spaces, the construction of indoor spaces for leisure and recreation, and the private use of existing green areas in these new and sophisticated real estate projects, aimed at the upper class. On the southern outskirts of the city, from that period onwards, in addition to the irregular occupancies or housing units in precarious conditions, new subdivisions also began to be established, with public housing being built with funds from the Minha Casa Minha Vida federal program, in order to meet the needs of the city’s low-income population (Image 2).

Image 2 shows this simultaneous process of socio-spatial segregation. In red, the popular subdivisions established on the southern outskirts can be seen, next to the industrial district of the city, a product of the spatial segregation resulting from the local exclusive and selective real estate market. In these places, the vast majority of residents are seasonal employees in the tobacco industry. In purple, the gated communities established on the northern and northeastern outskirts can be seen, next to the city’s green belt — a result from the process of self-segregation of the wealthiest layers of the population.
In other words, living on the outskirts of the city is no longer an exclusive condition for low-income people, as it has also become an option of choice for the high-income population who choose to live inside walled estates, close to nature, in quieter areas, which are relatively far from the city center, but that can be quickly and easily accessed by road.

At the same time, the current urbanization dynamics, along with a highly speculative real estate market and the insufficient actions related to regulation and planning by the municipal government, has produced a certain logic of territorial organization and urban land use that reveals growing socio-spatial segregation and a city increasingly fragmented in spatial and economical terms, and socially divided.

Another territorial transformation experienced in recent decades refers to verticalization in the central area and in the northern quadrant, in the Universitário and Santo Inácio neighborhoods. The local construction industry, together with local and regional private real estate development companies, has produced numerous vertical real estate projects (buildings with up to ten floors) intended both for residential and commercial purposes. The intention of reproducing real estate capital through the production of these new products has changed the vertical parameters of construction. The networks of real estate agents involving landowners, real estate developers, and the construction industry have been successful in their requests for the local government for greater flexibility or change in municipal urban planning legislation, which results in the expansion of land use in these areas of the city. Such measures have led to greater demographic density and, consequently, greater pressure on road and sanitation infrastructure, and on existing urban equipment in these areas.

Finally, the recent urbanization of the city has shown changes in the central area with the progressive real estate appreciation and transformation of old commercial spaces owned by traditional local companies, through the acquisition of these properties by national and international chains that started operating in the city in the food, appliances, and clothing trade. This process has also occurred in intermediate areas near the city center, causing changes in land use, where previously industrial units were located, with large areas and warehouses for the activities of old local establishments, which have closed down or moved to the industrial district on the southern outskirts of the city. These spaces and properties were acquired by national and multinational capital (such as Walmart, from the USA) for commercial purposes, and there has been construction of
hypermarkets, shopping malls, among others. Such changes have led to a growing appreciation of
urban land in the central area of the city and a substantial increase in the price of rents for residential
properties and commercial offices, which has led to high turnover of activities in this zone.

**Urbanism, tourism, and territorial transformations in the city of Bariloche, Argentina**

The city of San Carlos de Bariloche has a population of approximately 140 thousand
inhabitants. The last national census of 2010 indicates a total of 112,887 inhabitants. Over the last
decades, it has become one of the main international tourist destinations in Argentine Patagonia and
an incipient intermediate city. Its centrality derives from its prominence as a tourist hub for the
North Patagonian region, and also from a multiplicity of functions that it exerts over its area of
influence, a peripheral territory of the large cities of the country.

The process of expansion and development experienced by the city can be acknowledged as
a process of diffuse urbanization (Medina, 2018). In other words, a type of dispersed growth in a
large urban area with suburbanization, in close contact with nature and located in a rugged and
complex landscape. On the other hand, the city has stood out by its partial urban infrastructure and
equipment, and insufficient quality of municipal services.

**The recent urbanization process**

In Northern Patagonia, the national agricultural colonization policies used the agro-export
model predominant in “Modern Argentina” at the beginning of the 20th century. Bariloche was
originally a rural colony, devoted to agriculture and forestry, whose production was commercialized
through companies along the Andes Mountains. In the mid-1930s, there was a turnaround with the
institutionalization policies of the Andean territory (the Nahuel Huapi National Park is established
in 1934) and with the improvement of communications and transport (construction of railways)
(REY, 2004; MÉNDEZ, 2010; entre outros). Since then, an economic-productive structure strongly
dependent on its landscape resources was consolidated (ABALERON et al., 2009; NÚÑEZ;
VEJSBJERG, 2010).

The process of territorial and urban expansion of the city continued over the following
decades, as seen in Image 3. The first subdivisions were established in a fragmented way in
scenically advantageous areas west of the city center, as part of a process of settlement and
urbanization that quickly consolidated the city’s tourist vocation with increasing processes of land
appreciation and real estate speculation (GUEVARA; NÚÑEZ, 2018; MEDINA, 2018).

During the 1960s and 1990s, the city’s population growth intensified with internal migrants
and Chilean immigrants. Average annual population growth rates tripled those in the country
between 1947 and 1991 (Medina, 2018). The acceleration of the migratory influx was mainly
associated with the increase in the demand for workers in various infrastructure and urban
construction sites, and in activities associated with the growth of tourist services. New subdivisions
and neighborhoods were formed in the peripheral areas, in reason of the growing appreciation of the
lands of the western and central zones of the city. During these years, the southern upper-class
neighborhoods consolidated (nearer the Pampa de Huenuleo area, commonly called “el alto”), and
the first informal settlements appeared (MATOSSIAN, 2014).
The macroeconomic crisis at the end of 2001 had strong demographic and economic impacts on the city. The population growth of Bariloche between 2001 and 2010 was 21.2%, higher than the 10.6% at the national level and 15.5% at the provincial level. This population expansion was the result of a new immigration process that attracted families expelled from the market in larger cities in the country. However, this wave of immigration could not be absorbed by the workforce, due to the limitations of the local tourism sector (despite the resurgence after the 2002 depreciation) and other economic sectors, which stagnated for decades. On the one hand, this process limited the labor integration of a growing core of residents without specific training or experience in tourism (BOSCH et al., 2004). On the other hand, as shown in Image 4, the demand for housing and urban land increased in peripheral areas, where these population groups had settled, resulting in generalized increase in land prices.
Since then, the city has become an urban fabric of medium complexity, the result of urban and population expansion. This urbanization process has been a consequence of the consolidation of the city as a national and international tourist destination, but also of an expanding scientific-technological sector, and of greater trade and services concentration. As shown in the map of Image 4, Bariloche is home to a significant number of higher education and scientific-technological institutions that have developed and consolidated internationally since the creation, in 1955, of the Balseiro Institute and the Bariloche Atomic Center/National Atomic Energy Commission.

Today, Bariloche is an articulating hub not only of the regional tourism/recreation, but also of a multiplicity of medium- and high-complexity services in education, health, transshipment, law, trade, production, labor, communication and culture. Likewise, the city is home to offices of various public jurisdictions in three governmental spheres (local, provincial, and national). The physical presence of a significant number (in relation to the size of the city) of these organizations and public offices show the centrality of Bariloche in its region of influence and the usual flow of people who travel to the city temporarily demanding this type of services.

Simultaneously, a complex network was forming, in which several public institutions still interfered in the city without precise coordination. In such imprecision, greater or lesser according to certain historical moments, public policies related to land use were created based on the

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5 National Universities of Río Negro and Comahue; National Technological University, Balseiro Institute and Bariloche Atomic Centre, INTA (National Agricultural Technology Institute) and INTI (National Institute of Industrial Technology).

6 They carry out managerial functions of the different spheres of the government (ANSES, AFIP, PAMI), consulates, national and provincial ministries, courts, civil registry, municipal offices, among others; of access to health (Ramón Carrillo Zonal Hospital and other private centers), or functions of protection of the geographical space (National Parks, National Prefecture, National Gendarmerie, Airport Police, National Army and its Mountain School, Federal Police, Provincial Police, SPLIF [Forest Fire Prevention and Fighting Service], Andean Forest Service, among others).
correlation of forces according to the interests of different urban parties. In this correlation of forces, the conflict has been present based on disputes and negotiations of interests, projects, and ideas about the urban space that are constantly materialized in a spatiotemporal dimension.

Currently, the municipal district covers an area of 27,470 hectares (one of the largest in Argentina) and extends longitudinally for more than 60 kilometers along the Nahuel Huapi lake. The urbanized area, according to the registration criteria and the minimum infrastructure endowment reaches 8,050 hectares, with a perimeter of 172.5 kilometers and an average density of 16.14 inhab./ha, concentrating the highest number in the urban center and, the smallest, in the western zone (MSCB, 2015).

The dynamics of urban economy and recent changes

In addition to the existence of other components in the economic/productive structure of San Carlos de Bariloche, its model of local economic development is based on the tourism industry and on services directly or indirectly associated with it. The city’s scant economic diversification can be seen in the analysis of data from the city’s taxpayers. The tertiary sector (trade, tourist and non-tourist services) represents 89.5% of the total revenue generated in 2018. The remaining 10.5% are generated jointly by the industrial sector (mainly food and textiles), construction, and the primary sector (fishing, agriculture and mines, and quarries).

The city receives around 700,000 visitors a year, with marked seasonality in the winter and summer months. Additionally, due to the occurrence of snow and the practice of winter sports, in the third quarter it receives an average of 20% more tourists than in the summer. About 15% of the total annual visits consist of foreign tourists (9% from neighboring countries and 6% from the rest of the world), while the remaining 85% come from different parts of the country (KOZULJ, 2018). The year 2019 ended with a total of 730 thousand visits, the best figure since 2008 (771 thousand tourists).

Along with its natural attractions, Bariloche stands out for its varied and exclusive high-quality regional cuisine associated with tourist activity. The gastronomic businesses are mostly family owned and dedicated to the production and sale of handcrafted chocolates, gourmet foods, smoked products, fine fruit derivatives (raspberry, strawberry, sweet briar, cassis, cherry, and tart cherry), mushrooms, craft beers, among others. The chocolate shops are highly appreciated by visitors and have become a productive complex of around 30 companies with strong territorial roots — they are an important generator of local employment. Another thriving and dynamic food complex, with an increasing role in the local tourist context, is that of craft beers. Bariloche is one of the most well-known beer hubs in the country, with around 50 businesses with local, national and foreign capital, with their own breweries, pubs, and restaurants.

This low productive diversification exposes the city and its community to unwanted levels of vulnerability to exogenous events (volcanic eruptions, macroeconomic crises, epidemics, pandemics) that limit or even paralyze its local economy (CIVITARESI; COLINO, 2019) and endogenous processes of the same activity (“the tourist strain of Dutch disease” by OGLIETTI E COLINO, 2015).

Regarding the distribution of local employment, the government appears with a high relative weight (in its three levels). Although there are no official statistics, Kozulj (2016) estimates local employment by sector for 2014–2015 and shows that 22% of total employment corresponds to the public sector (Chart 2). Fifty-six percent of these public jobs depend on the provincial government (judicial system, health, education, and security), while 19% are municipal jobs, and the remaining 25% are jobs dependent on the national government, with its different institutions of security, higher education, science, and administrative offices located in the city. The Science and Technology system (with the Bariloche Atomic Center at the forefront) and the local headquarters of four National Universities, in particular, make up a local innovation system (acknowledged in the country as a scientific and technological center) of great dynamism in the gathering of highly trained human capital, in promoting innovation processes, in the creation of new companies, in knowledge transfer, and in institutional strengthening. Together, they account for approximately 16% of public employment, which represents around 15 workers in the sector for every 1,000 inhabitants of the city (KOZULJ, 2016).
The scientific/technological sector is inserted into the economic base of the city through INVAP S.E. (a state-owned company of the Government of Río Negro, which was founded as a result of an agreement with the National Atomic Energy Commission at the end of the 1970s). The company is an exporter of nuclear, space, radar and high-tech systems worldwide. Based on the demand for highly specialized services, it has led to the emergence of small local productive technology-based companies that, with varying degrees of success, complement their functions as INVAP suppliers by developing their own market insertion strategies.

As part of other actions in advanced services, in December 2017 the Nuclear Medicine and Radiotherapy Center was created, being operated and managed by the Institute of Nuclear Technologies for Health Foundation (Kozulj et al., 2018). The local resources and existing networks around the public and private technological scientific complex have led to the development of these new functions and advanced services, and of highly qualified jobs.

**Territorial transformations**

These characteristics of an incipient intermediate city (location economies, educational opportunities, accommodation in provincial or national government levels of administration, among others), with its consequent accelerated territorial expansion, have led to the consolidation of a large and topographically rugged urban area with low population density, little planning and spatial, economic and social segregation, which is primarily the product of unequal access to urban land (MATOSSIAN, 2014; GUEVARA, 2015; MEDINA, 2018). Local (mainly from tourism) and foreign economic surpluses, represented through real estate investments in zones with privileged landscapes, led the city to expand over rural areas and to be filled, from east to west on the coast of Nahuel Huapi Lake, with activities primarily related to tourism, middle and upper-middle class housing, and holiday homes. The last few decades have also seen the production of gated communities and other similar real estate projects located on the outskirts of lakes, forests, and mountains, aimed at the high-income population and residential tourism. This means that the particularly diffuse character that the urban configuration of Bariloche acquired has as its reference the formation of urban income and the real estate attention to suburban areas of scenic interest.

In the mid-2000s, as a result of this urbanization process, initiatives by groups of residents emerged with the intention to highlight the anthropogenic pressure on the natural environment. Thus, urban nature reserves were formalized with the objective of conserving nature, keeping certain areas free from urbanization processes. The first of these was the Laguna El Trébol urban nature reserve, formalized by Municipal Ordinance 1570-cm-2005. Subsequently, there were the natural and urban reserves Alto Jardín Botánico (Ordinance 1802-cm-2008), Lago Morenito, and...
Laguna Ezquerra (Ordinance 2030-cm-2010) and Bosque de la Ermita (Ordinance 2082-cm-2010). All of them represent, in addition to the conservation purposes, a conflict between residents already established in the reserves, who were already enjoying the benefits of living in a natural environment within the city, and the new neighbors who wanted to enjoy it (MEDINA, 2018).

As a consequence of these land appreciation processes, the city also expanded towards the southeast (commonly called “el alto”), an area of complex geography, with floodable soils, little urban infrastructure, and of less economic value, where the lower-income population tends to be located (MATOSSIAN, 2014). Although on a different (smaller) scale, the market logics can also be seen here in the processes of territorialization and transformation of urban space, which explain a recent and growing sociodemographic and economic heterogeneity in its interior (Image 5).

**Image 5:** Socioeconomic level by census radius (2010) and land occupation (2015) — S. C. de Bariloche

This entire process, based on real estate appreciation, has boosted the development of concentrated economic groups that exert power and condition the enforcement of urban environmental protection policies, but which, in turn, negatively affects the local government’s ability to prevent the fragmentation of urban space, the “countrification”, the increase in informal
settlements, and social polarization and exclusion that have an impact on the transformation processes of the city.

Specificities and similarities in urbanization and urban development in the intermediate cities of Santa Cruz do Sul and San Carlos de Bariloche

In general, it is first necessary to recognize that the intermediate cities and their respective urbanization processes analyzed here have differences, specificities, and particularities inherent to the historical and cultural backgrounds of the regions where they are located, to their dynamics of economic development and urbanization, and to the spatial location of their urban sites and the geographic situation in which they are located, in their provinces and in their countries.

Although both cities are in peripheral capitalist countries, such as Argentina and Brazil, they have very different spatial locations. San Carlos de Bariloche is located in the Río Negro Province, along the border with Chile, in a national park area, and 1,580 km away from the metropolis of Buenos Aires. Santa Cruz do Sul, in turn, is located in the Vale do Rio Pardo region, in the central area of Río Grande do Sul, 150 km away from the metropolitan region of Porto Alegre, the capital of the State of Río Grande do Sul, in southern Brazil.

Regarding the natural environment, there are also differences: while San Carlos de Bariloche is located along the Andes Mountains, in a mountainous region, and has a cold and dry climate, typical of a temperate forest zone, Santa Cruz do Sul is located in the region of transition between the forest areas of the Río Grande do Sul plateau and the Pampa countryside, with a warm and temperate climate. Regarding the environmental limitations to the urbanization process of the cities, it is possible to see that the city of San Carlos de Bariloche is inserted in the area of a national park (Nahuel Huapi National Park), and therefore has natural and legal limits to urban expansion. Today, there are a series of settlements grouped in various levels that closely coexist with the national park (Villas Catedral, Los Coihues, Arelaquen, Llao Llao, as well as Campanario, Colonia Suiza and those bordering the Park). This situation creates challenges and complexities for a harmonious relationship between the urbanization process and the park’s environmental management, due to the pressures and problems related to the growing demand for resources. Santa Cruz do Sul is located in an urban site surrounded to the east by hills (the so-called Green Belt) and to the west by Lake Dourado (Image 2). These natural elements have also conditioned the spatial orientation of urban expansion in these quadrants of the city. However, due to the recurrent pressure of real estate agents and landowners on the municipal government, urban and environmental legislation has been made more flexible with regard to land use regimes, promoting the growing occupancy of areas close to or within these spaces, through the construction of new subdivisions and gated communities in these regions of the city.

There are also particularities in the historical processes of territorial formation in both cities. The city of Bariloche, officially founded in 1902, was the result of a previous military campaign that subdued the original population and allowed the occupancy and enhancement of Pampa and North Patagonian lands. It was a border city, fundamentally dedicated to agro-pastoral and forestry work until the mid-1930s, when, driven by national policies, a strong transformation of the regional space began based on tourism. The city of Santa Cruz do Sul was created in 1905, as a result of the development process of the colonial settlement founded in 1849 in this region of the State of Río Grande do Sul, by the provincial government, with the arrival of German immigrants.

Taking into account these particularities regarding geographic conditions, spatial location, historical background, and the economic structure and dynamics of these intermediate cities, which cannot be disregarded in the comparative analysis, our intention in this topic is to highlight some variables that we believe are important for the understanding of the recent urbanization of these intermediate cities, and that allow us to identify the specificities and similarities existing in how this process occurs in both. For this purpose, some of these main analysis variables are systematized in Table 1.
Table 1: Variables for comparative analysis in the recent urbanization process of the intermediate cities of Santa Cruz do Sul and San Carlos de Bariloche

<table>
<thead>
<tr>
<th>Analysis variables</th>
<th>Santa Cruz do Sul</th>
<th>San Carlos de Bariloche</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration into global value chains</td>
<td>Global tobacco chain.</td>
<td>Global tourism chain.</td>
</tr>
<tr>
<td>Nature of business capital</td>
<td>Mainly international capital in the tobacco sector, and national capital in other productive sectors.</td>
<td>Mainly national capital of the tourism sector grouped in multiple business chambers.</td>
</tr>
<tr>
<td>Seasonality of economic dynamics</td>
<td>Tobacco harvest (harvesting crops, industrial processing, and export).</td>
<td>Winter and summer seasons. It stands out as a winter sports hub, receiving national and international tourism.</td>
</tr>
<tr>
<td>Economy and urban employment</td>
<td>Tobacco processing industry, construction, and services. Seasonal employment in the tobacco industry.</td>
<td>Services and trade associated with tourist and recreational activities, with marked seasonality. Strong public sector presence.</td>
</tr>
<tr>
<td>Spatial configuration of urbanization</td>
<td>Verticalization in the central area and dispersed and fragmented urbanization on the city’s outskirts.</td>
<td>Scattered and fragmented urbanization, increasing densification in the central area.</td>
</tr>
<tr>
<td>Main urban social agents</td>
<td>Landowners, tobacco industry, and real estate developers, but also excluded social groups. Informal occupancies of urban land.</td>
<td>Entrepreneurs and investors associated with tourism, real estate agents and speculators, excluded social groups, and informal occupancies of urban land.</td>
</tr>
<tr>
<td>Access to urban land and housing</td>
<td>Housing deficit for the working class accompanied by vacant properties. Peripheral neighborhoods with poor infrastructure for equipment and public services.</td>
<td>Low-income housing deficit accompanied by unoccupied or underemployed real estate and holiday homes. Neighborhoods with poor infrastructure and urban facilities.</td>
</tr>
<tr>
<td></td>
<td>Very speculative real estate market, creating inequalities and segregation in access to urban land and the city.</td>
<td>Very speculative real estate market, creating inequalities and segregation in access to urban land and the city.</td>
</tr>
</tbody>
</table>

Source: Created by the authors.

The first variable that stands out is the fact that both cities and their urban economies are integrated into global value chains and, therefore, experience both the opportunities and the limitations and difficulties of this economic integration, with effects and consequences for development of the urban economy and the urbanization process of these cities.

Santa Cruz do Sul is historically integrated into the world tobacco market, and its industrial activity of processing leaf tobacco and producing cigarettes is mainly intended for export. The dynamics of industrial production and employment in the tobacco and cigarette sector and the dynamics of specialized services to support this productive activity are closely linked and dependent on the demands of the world market. They are also subject to the conditions of exchange rate variation, health and tobacco control legislation in buyer countries, and changes in market strategies and the productive restructuring adopted by multinational corporations that control the production process and tobacco exports. San Carlos de Bariloche is integrated into the global tourism chain and all related services thereof. Although the international market is not the most relevant, the operating dynamics of the activity, especially winter tourism, is closely connected with global demand, especially from neighboring countries (Brazil and Chile), and with the trends in high-level excellence destinations worldwide. Likewise, the arrival of tourists is also conditioned by exogenous factors, be they macroeconomic and institutional (e.g., institutional crisis at the end of 2001), natural (e.g., Puyehue-Cordón Caulle Volcanic Complex eruption in June 2011) or epidemic (outbreak of the influenza A/H1N1 epidemic in 2009 or the current COVID-19 pandemic).

Additionally, there is the variable referring to the origin of the business capital that prevails in the urban economy of both cities. In this regard, it is possible to notice the existence of peculiarities. While in Santa Cruz do Sul there is hegemony of international capital in the production, industrial processing, and export of tobacco, in addition to the presence of national capital in
companies providing general and specialized services, in San Carlos de Bariloche it is possible to see the predominance of national capital conducting activities and services in the context of the tourism chain and its direct interrelation with the real estate market and the urban and landscape transformations caused by them.

The economic integration of both cities to these two global value chains presents another similarity, which is the seasonality variable experienced by economic dynamics. Tobacco harvesting and tourism seasons occur at certain times of the year — they are not permanent activities, but seasonal ones. Thus, they condition the development of the urban economy in both cities, concentrating in certain months of the year the productive activities of industrial processing and export of tobacco, in the case of Santa Cruz do Sul, and the services of accommodation, consumption, recreation and leisure for tourists, in the case of Bariloche. This seasonality, present in the main productive activities of the economy of these cities, also guides and conditions the opportunities for urban employment. In Santa Cruz do Sul, seasonal employees who work in the industrial tobacco processing lines are hired for six months, from January to June. During the rest of the year, they are unemployed or temporarily work in construction or retail, or provide domestic services. Most of these workers reside in peripheral neighborhoods, close to the city’s industrial district, in poor subdivisions, many of which are irregular and lack adequate infrastructure. Similarly, in San Carlos de Bariloche, seasonal workers are hired in tourist services for short periods, from June to August and from December to February. For the rest of the year, they are unemployed and find a complementary source of income in construction sites and providing domestic services, and in other subsistence activities. In general, these seasonal workers and their families live in low-income neighborhoods with little urban infrastructure, in public or irregular subdivisions in the south of the city.

Regarding the variable referring to the spatial configuration resulting from the recent urbanization process, it is possible to see that, in both cities, the evolution of the urban fabric reveals a simultaneous process of spatial dispersion and fragmentation. In Santa Cruz do Sul, the urbanization of the city has revealed a progressive and intense expansion of the urban perimeter, incorporating new areas (until recently only used for rural purposes) for the production of new real estate products, such as gated communities (on the northern outskirts) and public housing units (on the southern outskirts). However, in the urban areas that are more consolidated and have numerous infrastructure items and services (in more centralized neighborhoods), several unused urban voids are currently under process of real estate appreciation. In turn, the urbanization process in San Carlos de Bariloche happened through extensive and diffuse growth from the incorporation of new areas and plots scattered and fragmented in time — before rural use (Images 3 and 5). Its purpose was the construction of tourism infrastructure and other relevant services, residential neighborhoods, and holiday homes in the western and central areas of the city, and low- and middle-income neighborhoods and subdivisions in the south zone and in the areas east of the city. Recent transformation trends indicate greater intensification of use of the city center through verticalization and densification processes in low-income urban areas, even with poor planning, infrastructure, and urban equipment.

The current spatial configuration and the recent urbanization dynamics of these cities also reveal that the social production of urban space is the result of actions, strategies, and relationships conducted by social agents that are present and active in both cities. Thus, it is possible to identify the strong presence of landowners, real estate developers, industrial and commercial business owners, the municipal government, and excluded social groups. It is possible to see that, in both cities, the social and economic articulations and the power relations and disputes between some of these social agents present in the process of social production of urban space have led to the production of increasingly segregated and fragmented urban spaces, which are useful for the interests of the hegemonic economic sectors that control the urban economy and that are linked to the global tobacco and tourism value chains.

In both cities, one of the main socio-spatial consequences of this process of social production of urban space refers to the variable of access to urban land and housing. The existence of a speculative and socially exclusive real estate market, coupled with insufficient public policies for land and housing in the context of the social demands of the low-income population, has led to the growth of the housing deficit, informal land occupations, irregular production of subdivisions, and the construction of precarious housing in areas without urban infrastructure, especially on the outskirts of both cities. Thus, the socio-spatial segregation process has expanded in these cities,
where the urbanization process has not guaranteed the effective right to the city, especially for the low-income population.

Final Thoughts

In the analysis of the recent urbanization and the socio-spatial configuration of the intermediate cities of Santa Cruz do Sul, in Brazil, and San Carlos de Bariloche, in Argentina, it could be seen that such processes have differences and peculiarities that are specific to each of the cities and also conditioned by the particularities of the historical, cultural, economic and geographic contents of the respective municipal and regional territories where they are located. Nevertheless, it is possible to find some commonalities that can be used to generalize questions about the urbanization processes of intermediate cities. One is that the structural socioeconomic heterogeneity that exists in both cities, the macroeconomic volatility, and the erratic nature of national policies lead to a type of urban segregation dynamics in which essential inequalities in access to work, land, housing, and services occur.

It was also seen that these two cities being integrated into global value chains (tobacco and tourism) represents some important conditioning in their processes of urbanization, economic structuring, and socio-spatial organization, with consequences in urban dynamics, something that, on the one hand, shows the dependence of the organization and operation of these hegemonic economic activities in the local and regional economy, and, on the other hand, the existence of a speculative real estate market and the lack of effective public policies regarding regulation, housing, and planning for the use and occupancy of urban land, which leads to socio-spatial segregation and dispersed and fragmented urban growth.

The urbanization and recent urban transformations of the intermediate cities of Santa Cruz do Sul and San Carlos de Bariloche are also the result of their condition as regional centers that have relevant economic centrality and importance in terms of public and private services, attracting various flows of people, products, capital, and information both in the regional context, in their respective provinces, and in the national and global contexts.

The world (and also Latin America) has experienced an intense and growing urbanization process that is not restricted only to metropolitan areas but also reaches and expands in intermediate cities. Understanding the particularities of this process and its economic characteristics and socio-spatial consequences in medium-sized cities of different countries and regions, aiming at assimilating their specificities and similarities, can help in the construction of some classification of how this process is carried out in a territory. Doing that creates the possibility of reviewing and/or improving public planning, making it more adapted to each territory and each city. This was the intention of this study. Certainly, it is still necessary going further in this matter.

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