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The perceptions about urban planning legislation and its consequent verticalization process in a small coastal city according to different users of the urban space

Abstract

This work aims to evaluate and compare the perception of different groups of users in relation to increasing urbanization through the construction of tall buildings in a coastal city with significant seasonal movement and the adequacy of local urban planning legislation with such a verticalization process. As an object of study, the city of Capão da Canoa was selected, located on the southern coast of Brazil and which is experiencing a growing process of urbanization in its central area characterized by the construction of tall buildings (10 to 12 floors). Data collection was carried out through the application of 289 questionnaires and 102 interviews with different social actors involved with the urban evolution of Capão da Canoa, including residents and vacationers from three neighborhoods located in the central area of the city, civil builders, public managers and real estate developers. The results reveal that, although the negative assessment regarding the construction of tall buildings among residents and vacationers predominates, civil builders and real estate developers argue that vertical integration is essential to promote the city's economic and tourist development. Furthermore, residents and vacationers are also, for the most part, dissatisfied with urban legislation, mainly due to the delimitation of lateral distances considered insufficient between buildings, especially in buildings with 10 to 12 floors, highlighting the lack of environmental comfort in both interior of such apartments and in the adjacent public open space. On the other hand, although real estate developers, civil builders and public urban planning managers also consider the current Master Plan unsatisfactory, this dissatisfaction is mainly related to the defense of increasing the height limit from 12 to up to 30 floors and the release of construction of these buildings in the rest of the city and meeting the interests of the local population itself.

Keywords: coastal city, verticalization process, town planning legislation, social actors, environmental perceptio

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Introduction

Coastal areas are defined as the interfaces between the land surface and the ocean.[1] concentrating a diversity of ecosystems of great environmental relevance.[2] Therefore, the coastal space is considered rare, and its location is seen as privileged due to its geographic qualities and the fact that land close to the sea is relatively scarce in relation to the set of land in the world.[3] Furthermore, coastal areas have been a cause for global concern, expressed by scientists, governments, environmental activists and coastal users due to their environmental importance.[4] Currently, coastal population arrangements, focused mainly on tourist and summer activities, constitute a specific model of urbanization through a lifestyle related to the beach and outdoor life.[5] Due to this preference for tourist destinations close to the beach, several coastal cities are beginning to explore large-scale residential tourism related to local economic growth and development.[6] In this context, the lands closest to the coast tend to be the most valued due to their privileged location, attracting an increasing number of users.[7]

Thus, there is a growing demand from the middle and high-income public.[8] for example, in Brazil, for coastal areas for second homes intended for use on weekends, holidays, vacations or semi-permanent periods.[9] The number of retirees who choose to live permanently or semi-permanently in coastal areas is also increasing, not only for tourist reasons, but also in the search for greater tranquility and quality of life.[10] This process also promotes population growth driven by migratory flows due to the employment opportunities promoted by tourist activities.[11]

Consequently, more than 50% of the world's population is currently located in areas no more than 70 kilometers away from the coast.[12] and there is a tendency for demographic concentration to increase in these regions.[2] Coastal zones also concentrate most of contemporary metropolises and a considerable part of the world's economic and industrial activities.[3] Therefore, the coast tends to have higher demographic density rates than those in the interior of the continents, a trend that is reinforced in countries with colonial formation, such as Brazil, where the occupation of the territory occurred from the coast to the interior.[3] However, these coastal areas represent a scarce space on the Earth's surface[3] contributing to the process of verticalization becoming increasingly recurrent in cities located on the ocean coast. Nonetheless, this process ends up generating a series of impacts on urban space, but even if the legislation Brazilian urban planning presents a broad legal apparatus regarding the control of the development process verticalization in Brazilian cities, including coastal ones, the adequacy of regulatory instruments predicted is not evident. Therefore, this work aims to evaluate and compare the perception of different groups of users in relation to increasing

urbanization through the construction of tall buildings in a coastal city with significant seasonal movement and the adequacy of local urban planning legislation with such a verticalization process.

Material and methods

This work is inserted in the Environment-Behavior area, which evaluates the relationships between the physical-spatial characteristics of the built environment and the behavior and attitudes of its users.[13] Aiming to meet the objective of the work, the central area of the municipality was selected as the study area of Capão da Canoa, located on the north coast of Rio Grande do Sul, in southern Brazil (Figure 1), which, due to urbanization growing, has been experiencing an increase in building heights in its central area (Figure 1).

Figure 1 Location of the city of Capão da Canoa.

The central area of Capão da Canoa has three distinct contexts (Figure 2) characterized by: (1) predominance of low-rise buildings (up to 5 pavements) in the Centro neighborhood; (2) concentration of the largest number of medium-sized buildings (6 to 9 floors) in the Zona Nova neighborhood; (3) concentration of the largest number of tall buildings (10 to 12 floors) in the Navegantes neighborhood. The tall buildings (above 10 floors) are mostly located in the southernmost part of the central area of Capão da Canoa, which corresponds to part of the Navegantes neighborhood. This is the height limit permitted by the current Master Plan, implemented in 2004.[14] In the most central part, which corresponds to part of the Centro neighborhood and the initial occupation nucleus of the municipality, low buildings (up to five floors) predominate, mostly built in accordance with what was foreseen in the 1986 Master Plan.[15] The northern area, in turn, is in the Zona Nova neighborhood, which began to be verticalized in the 1990s, when the height limit permitted by the Master Plan became six floors.[16] Currently, this region has a height limit of nine floors for buildings in this perimeter.[17] which justifies the predominance of medium-sized buildings (height between six and nine floors) (Figure 2).

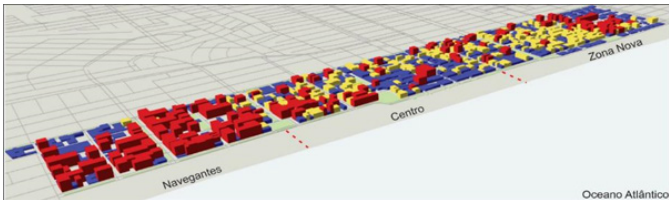

Figure 2 Low buildings (blue), medium (yellow) and high buildings (red) in the central area of Capão da Canoa (Navegantes, Centro and Zona Nova neighborhoods).

Data were collected through the application of 289 questionnaires that contained questions related to the perception of users who live or vacation in the central area of Capão da Canoa (respectively: 41 and 55 in the Navegantes neighborhood; 39 and 50 in the Center; 50 and 54 in the Zona Nova neighborhood) on the construction of tall buildings in the municipality and the relevant legislation. Also, 86 structured interviews with residents and vacationers from the three neighborhoods (respectively: 12 and 15 in Navigators; 13 and 20 in the Center; 11 and 14 in Zona Nova), in addition to 16 interviews with 3 public managers linked to municipal urban planning, 4 producers of urban space, including architects, urban planners and others involved in civil construction and 9 real estate developers (3 in each context evaluated) aiming to complement the information regarding the Interviewees' perception of current urban planning legislation regarding the construction of buildings high. Data from the questionnaires and interviews were synthesized and analyzed through their frequencies and meanings.

Results

Regarding the perception of residents of the Centro neighborhood, the verticalization process in Capão da Canoa is evaluated as negative by 48.7% (19 of 39) of residents, mainly for "overloading the urban infrastructure" (57.9% - 11 of 19) and "change the local microclimate" (52.6% - 10 of 19). On the other hand, 38.4% (15 of 39) of the neighborhood's residents center positively evaluates the presence of tall buildings in the city, mainly because they "generate jobs" (40% - 6 out of 15) and the "image of power and development" (40% - 6 out of 15). Among vacationers, the presence of tall buildings is assessed as negative by 39.1% (18 out of 46), mainly because it "changes the local microclimate" (50% - 9 of 18). Verticalization is also evaluated as positive by 39.1% of respondent's vacationers (18 out of 46) for the "image of power and development" (44.4% - 8 out of 18), for the "infrastructure condominium" (33.3% - 6 of 18), and because "they are newer buildings compared to low-rise and old buildings" (33.3% - 6 of 18).

Regarding the evaluations of residents and vacationers of the Zona Nova neighborhood about the presence of tall buildings in Capão da Canoa, there is greater dissatisfaction among residents (48.9% - 23 out of 47) with the verticalization process in the city for "changing the local microclimate" (56.5% - 13 out of 23). Furthermore, although to a lesser extent, the presence of tall buildings is also assessed as negative by 40% (20 out of 50) of vacationers in this neighborhood due mainly to the "replacement of low-rise houses and buildings by tall buildings" (50% - 10 of 20).

On the other hand, in the Navegantes neighborhood, half of the vacationers (50% - 24 out of 48) evaluates as positive the presence of tall buildings in Capão da Canoa due to their "image of power and development" (37.5% - 9 of 24). In turn, he positive evaluation by 33.3% (13 of 39) of residents of this neighborhood is related, above all, to the "condominium infrastructure of these buildings" (38.5% - 5 of 13) while the negative evaluation by 35.9% (14 out of 39) of residents is justified by "changes in the local microclimate" (42.9% - 6 out of 14) and the "construction of buildings close to each other" (42.9% - 6 of 14).

For the three public managers interviewed, in turn, the positive aspects of verticalization are related, above all, to the economic development of the municipality and the better construction quality of these buildings. According to one of the managers interviewed, Capão da Canoa is a city on the rise, due to the increasing migration of people to the coast, making vertical integration an appropriate option to meet

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this demand. Another manager also highlights that civil construction is what drives the local economy, mainly through the construction of these tall buildings. One of the managers also reports that such tall buildings offer a quality option that makes people want to live and vacation in Capão da Canoa, in addition to being a safer option in terms of the occurrence of crimes.

On the other hand, all managers interviewed highlight the overload on local urban infrastructure as a negative aspect in the construction of tall buildings. According to one of the managers, the biggest problem is only during the summer, mainly on dates when the movement of vacationers is greater, during the New Year and Carnival holidays. On the other hand, another manager highlights that urban infrastructure has always been a problem in the city, since it is always designed only to solve problems after the construction of buildings, when in fact it should be planned from the beginning to meet the high demands generated by the construction of tall buildings. In this sense, new constructions should only occur with approval from CORSAN (Rio Grandense Company of Sanitation) to ensure the necessary basic water and sewage infrastructure, which in practice ends up not being respected. Another aspect highlighted by managers in relation to the impact caused on urban infrastructure is the increase in vehicle traffic, also causing a lack of parking spaces on the streets as the streets cannot be widened, they were designed for a city that did not know that it would grow so much. Another negative factor relevant to urban managers is the lack of privacy inside apartments in tall buildings due to the shorter distance from other buildings. As highlighted by one of the managers, "the base of the buildings is attached to neighboring buildings, with only the tower retreating 3.5 meters from the boundary, totaling 7 meters between the apartments. So, you can often see and talk to your neighbor".

For the four interviewees in the construction market, the main positive aspects of the verticalization process in Capão da Canoa are related to the "heating of the real estate market", the "greater generation of jobs" and the "greater use of the land". According to one of the builders interviewed, "Capão da Canoa is very attractive, it is the city where people want to be. The construction of tall buildings promotes leisure and more investments, heats up the market, creates jobs in construction and increases the speed of sales". For another builder interviewed further highlights that:

Civil construction is one of the activities that represents the largest percentage of the city's economic activity. Each project takes an average of three years to complete and there are currently 60 buildings under construction at the same time, occupying, on average, two plots of land and representing approximately 10,000 new apartments. This is very positive, it creates jobs for the entire production chain, from the person who sells properties to the person who sells an architectural to engineering project, an entire chain around civil construction projects. Today we have 81 associated real estate agencies, more than 600 real estate agents. And for the social growth of the city, it generates a better quality of life for the people who live here.

One of the builders also highlights the negative effect of shading caused by tall buildings in front of the coast, where there has been no sun since five o'clock in the afternoon. Another builder also mentions problems with the "greater number of vacationers during the summer" and the "overload on urban infrastructure", although to a lesser extent when compared to other larger coastal cities. According to the interviewee, "The urban infrastructure of Capão da Canoa cannot keep up with private growth. It ends up having overcrowding during the season, but it is a normal movement during the summer and the city responds very well to this. Even so, we don't have as many problems as we see on other beaches".

The nine real estate developers interviewed also highlight as the main positive aspects of verticalization the "attraction of a greater number of residents and vacationers" (44.4% - 4 of 9), the "movement of the construction market" (44.4% - 4 out of 9) and the "greatest development in the city" (33.3% - 3 out of 9). In this sense, one of the real estate agents interviewed highlights that "The construction of tall buildings increases the flow of people in the city, brings better quality of life, development and financial return to the municipality due to greater tax collection". Another real estate developer also highlights that the construction of tall buildings is positive for sales, which has made Capão da Canoa grow more than neighboring cities. For another real estate agent, verticalization is a process that transforms civil construction and attracts vacationers and higher investments, including to other coastal cities in the region as it is the coastal city with the greatest infrastructure closest to the state capital of Rio Grande do Sul, Porto Alegre.

Another positive aspect highlighted by the promoters is the "higher construction quality of tall buildings", improving the city's image, while older buildings are being demolished. For another real estate developer, such buildings bring new technologies and materials to construction, making people interested in trying new products on the real estate market, while older buildings are forced to be renovated to compete with new constructions. The "quality of views from apartments located on the highest floors of buildings" is also another factor frequently mentioned by real estate developers. The "quality of views from the apartments located on the highest floors of the buildings" is also another factor frequently mentioned by real estate developers, since such apartments allow a qualified view to the outside, free from other buildings in front. On the other hand, the main negative aspects related to the presence of tall buildings in Capão da Canoa, according to real estate developers, concern the "shadowing caused in public open space", especially when these buildings are built close to the waterfront (Figure 3). In this sense, according to one of the real estate agents interviewed, "tall buildings only have a positive impact when built further from the sea to not create shadows on the beach. Furthermore, there is no longer any space to build on the seafront" **(**Figure 3).

Figure 3 tall buildings observed from the edge of Capão da Canoa in the Navegantes neighborhood.

Also, regarding urban legislation related to the construction of tall buildings, most residents and vacationers in the three neighborhoods interviewed consider the rates constructions provided for by the current Master Plan are inadequate (front, side and rear setbacks), as follows: 69.2% of residents and 55% of vacationers in the Centro neighborhood; 75% of residents and 64.3% of vacationers in the Zona Nova neighborhood; 66.7% of residents and 66.7% of vacationers in the Navegantes neighborhood. This perception is related, above all, to: "construction of tall buildings close to each other of the others" (63.6% - 7 of 11 vacationers from the Centro neighborhood; 60% - 6 of 10 vacationers from the Navegantes neighborhood; 55.5% - 5 of 9 residents of the Zona Nova neighborhood; 50% - 4 of 8 residents of the Navegantes neighborhood); "excessive construction of tall buildings in the center of the municipality" (66.7% - 6 of 9 vacationers from the Zona Nova); "construction of tall buildings in front of the

waterfront" (44.4% - 4 out of 9 of the residents of the Zona Nova) and "insufficient urban infrastructure" (44.4% - 4 of 9 residents of the Centro neighborhood).

Furthermore, among those interviewed, 69.2% (9 of 13) of residents and 55% (11 of 20) of vacationers in the neighborhood Center and residents of the neighborhoods Zona Nova (58.3% - 7 of 12) and Navegantes (75% - 9 of 12) are against the expansion of the construction of tall buildings in other areas of the municipality. This perception justified by the "overload on urban infrastructure" (55.5% - 5 of 9 residents of the Navegantes neighborhood; 44.4% - 4 out of 9 residents of the Centro neighborhood), due to the "impact on the natural landscape" (45.4% - 5 out of 11 vacationers from the Centro neighborhood; 40% - 2 out of 5 vacationers from the Zona Nova neighborhood), and due to the "excessive growth of the municipality" (42.9% - 3 of 7 residents and 40% - 2 of 5 vacationers from the Zona Nova neighborhood). Already, the majority of respondents who vacation in the Zona Nova (64.3% - 9 of 14) and Navegantes (73.3% - 11 of 15) neighborhoods and 45% (9 out of 20) of those who summer in the Centro neighborhood agree with increasing the height of buildings in other areas of the municipality (Figure 5). This perception is related to: the "decrease in density population in the center of the municipality" (55.5% - 5 of 9 vacationers from the Centro neighborhood); to the "possibility of build tall buildings between Avenida Paraguassu and Estrada do Mar" (72.7% - 8 of 11 vacationers from Navegantes neighborhood); and "not to build tall buildings in front of the coast" (44.4% - 4 of 9 vacationers from Zona Nova neighborhood).

On the other hand, for all public managers (3) and civil builders (4) and 88.9% (8 of 9) of the real estate developers interviewed are in favor of allowing the construction of tall buildings in other areas outside the center of Capão da Canoa. For public managers, the release of the 12-floor limit in other areas of the city is important, above all, as it allows for an increase in construction rates (66.7% - 2 of 3) and an increase in the distance between buildings (66.7% - 2 of 3). 7% - 2 of 3) through the construction of isolated typologies on the land, making it possible to reduce population density in the Centro neighborhood (66.7% - 2 of 3). For one of the managers, the ideal would be to make the central area less dense, spread out this population more and free up this limit for the northern region, for other resorts that are not yet consolidated. Another public manager, in turn, highlights that the release of tall buildings is necessary, but should not be allowed in front of the waterfront: on the edge of the beach, perhaps, the most appropriate thing would be to have low buildings, 3 to 6 floors high, and follow a line so that no one casts a shadow on the other building and does not cause a shadow on the edge of the beach, but you move away from the edge of the beach and not causing shadow, you wouldn't have this problem. This same public manager also highlights that the height limit is not a problem, but rather the occupancy rate: "This proximity between the buildings where you can ask your neighbor for sugar through the window is absurd, but, having greater setbacks, which is the biggest problem, the appearance of the city becomes completely different".

For civil builders, the need to reduce the densification of the city center and the possibility of increasing the distances between constructed buildings are also the main justifications in favor of releasing the 12-floor limit in other regions of Capão da Canoa. For one of the interviewees, "the height limit should be expanded to other points north of the city, creating attractor poles. Currently everything is concentrated in the center." Another interviewee also highlights that: "in the central area, over a period of about ten years and we will have very little available for construction. We will have to destroy the old buildings to build new ones, this is where our customers want to buy, it is the best place currently". Real estate developers, in turn, mainly defend the release of the construction of tall buildings (from 12 pav.) to the interior of the continent. In this sense, one of the real estate developers highlights that: "It is interesting that it is higher towards the interior, as it does not affect the sun on the seafront".

Furthermore, all public managers (3) and civil builders (4) and 77.7% (7 of 9) of real estate developers consider the urban planning devices provided for in the current Capão da Canoa Master Plan to be inadequate. The three public managers interviewed also highlight that the setbacks provided for by current legislation should be greater and two of the managers reinforce that those tall buildings (12 pav.) should not be built in front of the waterfront. For the three public managers interviewed, this inadequacy is related to the embargo in place at the Public Ministry that prevents changes to the current Master Plan until the city's sewage treatment network is expanded. In this sense, one of the managers explains that, as it is not possible to change the Master Plan, the city's Building Code is being changed. According to another manager, the delay in changing the Master Plan has also meant that construction indices are no longer respected: "Some exceed the height limits because today you can't ask to break what has already been built, it's already ready, there's no way to reduce the height. In these cases, they make a TAC (Conduct Adjustment Treatment) with the city hall in exchange for these areas".Among civil builders, in turn, the imposition of the typology with bases glued to the boundaries of the land is the most negative aspect of the current Master Plan. According to one of the builders, "the plan only allows building boxes to be glued together. If allowed to build higher, we can build towers of isolated buildings on the land, allowing greater ventilation and solar lighting inside the apartments, wider views to the outside due to the distance between the buildings".

Another builder mentions that other typologies would make it possible to build the same number of square meters, but with better quality: "Today we have a building with a base and a body covering 3 thousand square meters, we end up having an average of three apartments per floor. We could have the same building with 25 floors and one apartment per floor in an isolated tower type on the land". The need for larger setbacks between buildings is also a significant aspect for the negative evaluation of the current Master Plan by the interviewed builders. As one of the builders points out: "The problem with the indexes is the setbacks between the buildings, the buildings are built very close to each other, it is very dense, the streets are very shaded, the wind does not circulate, there is no privacy in the apartments, there are no wide views from the apartments".

For real estate developers, dissatisfaction with setbacks between tall buildings (Figure 4) is also one of the main negative aspects in relation to current legislation. In this sense, one of the promoters interviewed highlights that: "The distance between buildings can be greater so as not to harm ventilation and natural lighting inside the apartments". Another real estate developer interviewed also mentions that: "apartments at the back of lots in contexts with a predominance of 12-story buildings end up having unsatisfactory views to the outside, directly to the neighbors' apartments". Furthermore, for five of the nine real estate developers interviewed there would not be a need for a height limit defined by the Master Plan. According to one of the real estate developers, "the expansion of buildings of 18 to 20 floors should be allowed in areas far from the seafront, something that is already being discussed for the new Master Plan and which would be very positive, reaching the height limit permitted in the state capital, Porto Alegre and leaving a limit of 9 floors on the beachfront" (Figure 4).

Figure 4 12-story tall buildings with base glued to the side boundaries and overlapping towers with side setbacks

Furthermore, in relation to the preparation of Master Plans, the participation of all local associations is highlighted by public managers and civil builders. In this sense, the managers highlight the municipality's difficulty in combining the proposals brought by the different sectors. The general population has access to discussions only at public hearings to hear the proposals, without participating in the preparation of the guidelines.

Discussion

The results revealed a significant negative assessment regarding the presence of tall buildings (10 to 12 pav.) in Capão da Canoa, mainly among residents and vacationers in the Zona Nova neighborhood. The dissatisfaction of residents and vacationers in the three neighborhoods with the presence of tall buildings tends to be mainly associated with changes in the local microclimate, overload of existing urban infrastructure, construction of tall buildings too close to the coast and too close to each other. The results also indicate that vacationers in the Navegantes neighborhood are those who best evaluate the presence of tall buildings in the municipality, even if it is a small proportion, which is justified, above all, by the fact that these buildings represent an image of power and development, are newer buildings, with better construction quality and better condominium infrastructure, generate jobs and promote the optimization of urban infrastructure. In turn, among public managers, civil builders and real estate developers, positive assessments regarding the verticalization process of Capão da Canoa tend to predominate, even though some of these respondents highlight problems related to environmental impact, the overload of urban infrastructure and to the environmental comfort of apartments located in high-rise buildings.

Regarding urban legislation, the release of the height limit (12 pav.) in other areas outside the central area of the municipality tends to be more accepted by vacationers, mainly in the Navegantes neighborhood, if they are built in other areas of the city. These results are in line with what is advocated by most of the real estate developers, public managers and civil builders interviewed, that the construction of buildings with 12 or more floors should be allowed in other areas of the city to make the central region less dense. Most residents and vacationers interviewed also consider the control devices (building height limits, front, side and rear setbacks, occupancy rate and utilization rate) provided for in the current Capão da Canoa Master Plan to be inadequate. However, most residents and vacationers do not usually get involved in decisions involving the development of urban legislation in Capão da Canoa due to disbelief in the efficiency of this participation. Real estate developers, civil builders and public urban planning managers, in turn, consider the current Master Plan unsatisfactory as they advocate increasing the height limit from 12 to up to 30 floors and allowing the construction of these buildings in the rest of the city and the implementation of an isolated building typology within the lots.

Conclusion

The results reveal that the fact of living or vacationing in neighborhoods with a predominance of low-rise buildings, medium-sized buildings or even with a predominance of tall buildings did not change the negative assessment of the presence of tall buildings (10 to 12 pav.) in Capão da Canoa. However, tall buildings correspond to the typology which is currently being built in Capão da Canoa due to the influence of civil construction. Additionally, it can be inferred that, even if tall buildings of 12 floors do not cause major problems in medium and large cities, the way in which such buildings have been built in a small coastal city like Capão da Canoa tends to produce more negative than positive effects.

Infrastructure overload due to excessive construction of tall buildings also appears as a relevant factor for dissatisfaction with verticalization in Capão da Canoa. These results are in line with the mention of the public managers interviewed that the city grew more than expected in the central region and that public investments in urban infrastructure cannot keep up with private demand in the construction market. This evidence is in line with urban planner Raquel Rolnik's statement that most of the Master Plans of Brazilian cities have more of a zoning character for land use and occupation than urban infrastructure planning.[18] In this sense, the overload of the urban infrastructure of Capão da Canoa contradicts the guidelines established by the City Statute, that the ordering and control of land use must avoid the installation of enterprises or activities that can function as traffic generating hubs, without the forecast of the corresponding infrastructure.[17] Therefore, the argument that tall buildings make it possible to optimize urban infrastructure (e.g., road system, water and sewage network) by concentrating large population densities in central areas of cities.[19] does not hold water applies if there is no adequate infrastructure planning for the municipality.

On the other hand, the generation of jobs and the image of greater power and economic and tourist development associated with tall buildings appear as the main justifications for the satisfaction of real estate developers, professionals linked to civil construction, public managers and a few residents and vacationers of the three neighborhoods that are satisfied with the presence of tall buildings in Capão da Canoa. These results are in line with other studies.[20] which highlight that the presence of tall buildings refers to a positive image of modernity. Furthermore, they also support the economic argument that the multiplication of land made possible by the construction of tall buildings tends to generate profits for entrepreneurs.[11]They are also in line with the work of Luchiari (1998), who identifies that the urbanization of Brazilian coastal tourist areas creates a growing demand for labor in the civil construction market and in the service sector (e.g., tourism, transport, communications). However, this study also highlights that, in most cases, these jobs are limited to seasonal offers **(**Luchiari, 1998).

Furthermore, it appears that most vacationers and residents are dissatisfied with the construction rates established by the current Master Plan, above all, due to lateral distances and insufficient funds between tall buildings (10 to 12 pav.) due to the proximity of other buildings of the same height (6 to 7 meters away). Now, the release of the current height limit of 12 floors outside the central area of the municipality tends to be more accepted by vacationers, if they are built far from the coast. These results corroborate those of studies such as.[22] which identifies the negative impact of the construction of

tall buildings (10 to 12 pav.) on the environment, mainly when built in front of the waterfront.

In turn, real estate developers, civil builders and public urban planning managers consider the current Master Plan (2004) unsatisfactory for being outdated, as its review should have taken place in 2014, and for defending a greater distance between buildings, increasing the height limit from 12 to up to 30 floors and allowing the construction of these buildings in the rest of the city. The aim is, therefore, to make the central area less dense and the implementation of the typology of isolated buildings within the lots is advocated. The proposal for this type of implementation meets the indication of several authors.[23–25] that growth in height is not necessarily the better typology to accommodate a greater number of people in each area, without losing the relationship with the adjacent urban context. Furthermore, several studies.[26–28] highlight that the typology of isolated building on the land, without connection with the adjacent public open space, results in environments without urban vitality, unsafe and that do little to promote social interaction between different groups of users. Therefore, based on the results of this study, the need for a review of the design guidelines adopted by civil builders, architects, urban planners and other professionals involved with urban form and the different urban guidelines of the Master Plan, the Construction Code and of other legislation regarding the relations between the heights of buildings. Thus, this work can contribute to the knowledge, legislation and urban planning involving tall buildings in coastal cities.

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Conflicts of interest

The author declares that there is no conflicts of interest.

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