



**Research Tracks in Urbanism**  
**DYNAMICS, PLANNING AND DESIGN**  
**IN CONTEMPORARY URBAN TERRITORIES**

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**CRC Press**  
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## RESEARCH TRACKS IN URBANISM



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# Research Tracks in Urbanism: Dynamics, Planning and Design in Contemporary Urban Territories

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CRC Press

Taylor & Francis Group

Boca Raton London New York

CRC Press is an imprint of the  
Taylor & Francis Group, an **informa** business

A BALKEMA BOOK

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*Typeset by Integra Software Services Pvt. Ltd., Pondicherry, India*

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*Library of Congress Cataloging-in-Publication Data*

A catalog record has been requested for this book

Published by: CRC Press/Balkema

Schipholweg 107C, 2316 XC Leiden, The Netherlands

e-mail: [enquiries@taylorandfrancis.com](mailto:enquiries@taylorandfrancis.com)

[www.routledge.com](http://www.routledge.com) – [www.taylorandfrancis.com](http://www.taylorandfrancis.com)

ISBN: 978-1-032-10788-2 (Hbk)

ISBN: 978-1-032-11625-9 (Pbk)

ISBN: 978-1-003-22085-5 (eBook)

DOI: 10.1201/9781003220855

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## Preface

The first International Research Seminar on Urbanism (SIIU - *Seminario Internacional de Investigación en Urbanismo*) was held 14 years ago in Barcelona. It was organised by the Department of Urbanism and Spatial Planning of the Polytechnic University of Cataluña (UPC - *Universidad Politécnica de Cataluña*) and aimed to bring together young researchers who were conducting their master's and doctoral studies. In a short period of time, the Seminar raised considerable interest beyond the select UPC context, and the number of people interested or wanting to participate increased considerably. The participation of Latin American researchers widely exceeded initial expectations and so in 2013 the V Seminar was, for the first time, organised in two locations at the same time, organised in Barcelona and at a Latin American university, establishing a common platform for discussion. From that point onwards, there was a consolidation of this shared space, allowing for reflection on developments in urbanism and transformation of cities and territories in different Latin American countries.

The Portuguese language has been present ever since the first seminar, and has become increasingly important among participants over time. In 2020, the Seminar was held by the University of Lisbon and by the University of Mackenzie in São Paulo, drawing greater attention to lusophone research. Undoubtedly, these studies focused on issues that are particular to Portugal and Brazil. However, these also appear to be increasingly common in the Ibero-American context.

The main Latin American universities organised some of these Seminars together with Barcelona. This has allowed for an exchange of reflections and a continuous transfer of fruitful ideas, and has highlighted new ways of addressing common problems. Above all, it has provided a platform for discussion between young researchers, where they have shared endeavours, been enriched, and consolidated a space for discussion on the main challenges our cities and territories currently face.

The idea for this publication emerged from this. Benefiting from the long journey of these Seminars and the circa two thousand papers presented over the years, this is an opportunity to reflect on the challenges our cities and territories face today. By doing this on both sides of the Atlantic, we acknowledge that we share many concerns on a common agenda, even though such an agenda has its own specificities in Europe, particularly in Southern Europe, and in Brazil, and by extension in Latin America.

The aim is to draw a “map” with the most relevant research topics in our field and illustrate it with some examples. The underlying idea is to rethink the disciplinary foundations that guide urban and city design, opening up to new challenges. Furthermore, we intend to reflect, from an academic perspective, on urban planning as an inescapable obligation.

This contribution is composed of two modestly summarized texts, evoking two distinct realities which reflect today's truly global world: one European and another South American. They are joined by papers selected in Lisbon and in São Paulo, addressing a broad range of topics, from the metropolis to public space, from urban living to mobility, from the informal

to the landscape, from urban morphology to social perspectives, from territorial interventions to the publication of urbanism. These papers aim to understand and find room for innovation.

Maybe the *Global Village* metaphor has never been more accurate than it is today, where societies join forces in the fight against the pandemic, in a global coordinated effort, possibly never tested before in the known history of Humankind. Although we are sure that in the past some other shared demands have united the different peoples of the world, this has never been so strongly necessary, mainly in so far as the global scientific community is concerned. This is a fight for the survival of a society. However, we should not lose sight of what we are fighting for. We fight together for people. Not just for the abstract value of Human life, but for life in society as a whole, including its moral and ethical aspects. The topics of this book are based on this claim, on what makes it possible. We do not build our lives in a vacuum, or in distant *Invisible Cities*, but through a higher value, which represents physical life in society: the City.

We constantly make value judgements on technology and how it promotes or limits our full meaning of life. Much has already been discussed about its virtues as well as its harmful effects, and much more will be discussed. Nonetheless, it was through technology that we have, for now, been able to win some of the battles that the pandemic has forced us to fight. Over the last few months, the paradox of the importance that new technologies and social media can have in establishing a new virtual public space have also been noted. In fact, during the lockdown, almost all social activities took place in the shapeless and intangible space of the Internet. In six months, the one thousand participants of the SIIU2020 went from an in-person to on-line register, and the event took place, regardless. It was in this virtual public space, that identities, meanings, and relationships were nourished, articulated and maintained.

This book is a spin-off of the SIIU2020. Inspired by the contents of twelve research seminars, a group of researchers from the universities of Barcelona, Lisbon and São Paulo discuss the contemporary agenda of research in Urbanism. Following the conference, 35 original research papers were brought together with different perspectives about such an agenda. They were submitted to a double-blind peer review, which selected the “best papers” from both SIIU2020 locations.

Barcelona, Lisbon, São Paulo, February 2021  
The Editors

## Acknowledgments

The Editors wish to acknowledge with a big debt of gratitude to all those who have given their time and experiences during the preparation of this book.

Our particular thanks go to the AEAULP - Academia de Escolas de Arquitectura e Urbanismo de Língua Portuguesa and to Professor Conceição Trigueiros.

We would also like to acknowledge the funding support by: FCT Strategic Project UIDB/04008/2020; the PhD Program in Urbanism of the Lisbon School of Architecture, University of Lisbon; the CAPES/PAEP (AUXPE 0107/2020; Process: 88881.470831/2019-01); Degree Post-Graduate Program in Architecture and Urbanism - CAPES/PROEX - (Process: 23038.001402/2021-32); UPM/CAPES/PrInt - Mackenzie Presbyterian University Internalization Program (Process: 745884P), Mackpesquisa, and Mackenzie Presbyterian University.

We greatly appreciate the help of Elisabete Rolo, Rafaela Costa, Miguel Rafael, Miguel Miranda, Alexandra Luis, Filipa Nogueira, Mafalda Casais and Caterina Anastasia.

Finally, we are profoundly grateful to Luis Miguel Ginja for his enthusiastic response and generosity that made the work so enjoyable.



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## Project strategies for territory development in degraded coastlines. The case of Caleta Tumbes, Talcahuano, Chile

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**ABSTRACT:** The case of Tumbes is analyzed in the context of one of the over 70 coves in the Region del Bío-Bío considered “fragile territories”; this forms a territory system with unique characteristics, besides a high geographical, cultural and microeconomic potential. Through the use of project strategy methodology, approaches to current problems are determined, but above all, these are understood as opportunities for future projection. The hypothesis suggests that urban infrastructures, increasingly complex, encourage territory restructuring based on urban scenarios that meet the needs of users in complex, dynamic and degraded territories. In this context, the work done can be designed, applying the methodology in different “fragile territories” that make up the identity of the regional border, building long-term strategies, operating from the perspective of a territory system.

### 1 INTRODUCTION

This study presents the Methodology of project strategies applied in 2019 to the coastal town of Tumbes in the Región del Bío-Bío, Chile, through the holding of the “International Workshop 2019”, in which a group of students and professors, along with government professionals, connect with real contexts concerning territory, culture and society. This workshop was organized by the Universidad del Desarrollo, through its School of Architecture Sur-Sur in Concepción, Chile, along with the Laboratory of Project Strategies (LABSTRATEGY) of the Universidade Presbiteriana Mackenzie in Sao Paulo, Brazil. This project was supported by the MINVU/SERVIU, and by both Architecture and Urbanism Schools.

In the current global and regional urban hierarchies, there is a wide diversity of territories that have become increasingly excluded from larger global processes that feed the world economy (Borja and Castell, 1999). In Latin America, these territories are cited in the document “2018 Revision of Urbanization Prospects” (UN, 2018), where rural areas and non-urban towns tend to lose population given their geographical, social, political, demographic, and income characteristics; this situation contrasts with that of urban areas, where there is a clear growth in population in projections for 2050.

In this context, Caleta Tumbes is analyzed among the over 70 coves in the area and the 240 coves in the country, as a territory of great geographic and micro-

economic potential. The interest for this location is explained by its value within the territory made up of several coves with unique characteristics, which are on the verge of socio-demographic extinction due to recent major economic, territorial, and social changes.

In the face of these changes, this article aims to propose strategies that promote the development of these degraded coastal areas, identifying possible situations that can create and incorporate strategies as an urban area in the context of current urban design guidelines. Therefore, this article seeks to provide strategic comprehension in terms of how to conduct this kind of intervention in contrast with other methods that tend to identify architectural projects. Thus, this process aims: (1) to delineate opportunities for these vast territories; and (2) to show possible urban interventions, by determining strategic elements through the implementation of tactical urbanism.

Therefore, it is envisaged that the projection of this study, by applying the aforementioned methodology to different “fragile territories” that are part of the regional coastal identity, can result in a greater understanding of the potential of these areas as a long-term strategy, working from a local towards a territorial system.

### 2 CASE STUDY: TUMBES

Caleta Tumbes is located in the central-south area of Chile, in the commune of Talcahuano, Región del

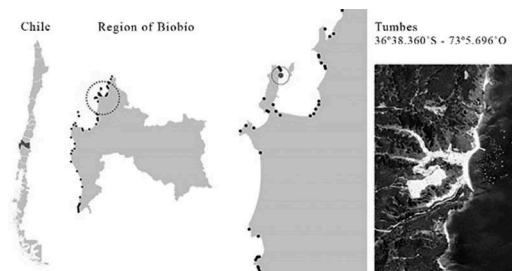


Figure 1. Maps showing location of Tumbes within the country and the cove system of the Biobío Region. Source: prepared by the authors.

Bío-Bío. It lies on the western border of the peninsula of Tumbes, facing Isla Quiriquina in the bay of Concepción, 12 kilometers from Talcahuano and 20 kilometers from Concepción, the capital city of the Region.

The town has a population of 1880 people and consists of over 600 houses (INE, 2019). Its main economic activity is related to exploiting resources from the sea seaweed harvesting, small-scale fishing, boat repair, and only recently, the increasing tourism and commercial activities, mainly associated with gastronomy involving sea produce.

This cove is located between two gorges called Maryland and San Juan, the latter of which provides access to the cove; this is the only paved two-way access. Its geographical characteristics, along with the proximity of the houses to the coastline (a common characteristic of most coves), has made the cove vulnerable to tsunamis. The last tsunami of February 27th, 2010 hit most of the coastline of the region. It was because of this natural disaster that the cove suffered a dramatic restructuring, as the tsunami destroyed all the buildings - homes and stores - near the coastline. Given its vulnerability, this also resulted in the abandoning of three minor settlements in the north located between the hill and the coast, part of Tumbes. Also, the relocation of a group of families from San Juan promoted a new urban structure, different from the one that had been built organically by the population, and which used to live just a few steps away from the sea.

### 3 METHODOLOGY OF PROJECT STRATEGIES

The methodological process drew on Hernández' doctoral thesis "Estratégias Projetuais no Território do Porto de Santos"<sup>1</sup> (Hernández, 2012), whose research prompted the formation of the research group Estratégias Projetuais em Territórios Urbanos/

Degradados e Portuários (LABSTRATEGY), and has since 2013 led to 27 workshops in different geographical areas in Latin America and Africa, using a specific methodology for degraded urban areas.

The methodological process holds that the vision of systemic [urban] planning is based on the principles of the production of territory control systems from the 1960s, in contrast with the processes of strategic planning that define the urban planning approach of the 1980s.

As suggested by Borja (1988), the exhaustion of the classic territory planning and ambiguity of a major project, which was supposedly isolated, forced the idea of planning according to the nature of the interventions that correspond to new spaces.

The present study is based conceptually on the views presented by Brian McLaughlin in his book "Urban and Regional Planning: A systems Approach" (1969) and by José Fernández Güell in "Planificación Estratégica de Ciudades" (2006). Thus, the use and implementation of actions as strategic inducers allow the formulation of contemporary systems that operate in contexts whose components are interconnected with a set of common purposes determined by the individuals, companies and institutions that carry out their activities in these new urban systems; these require different resources, infrastructure and services that promote innovative spaces for the territories.

It is by means of this transformative process that both the language and conceptual structure should be determined and presented through strategies for future prospects; these will determine the possibilities of applying more tactical urbanism.

According to Fernández Güell (2006) a strategy is defined as a group of principles, activities and means that form a plan of action - following a particular itinerary-, to achieve a desired city model for a particular situation. Strategies are connected through the planning of diverse systems that define the fusion of the urban territory and the coastline: the interactive flows of pedestrians, light vehicles moving correspondingly in lanes, automobiles, bicycles, shipping lines, and small vessels, creating an open scenario that operates as a functional structure.

Planning is a systematic process that aims to offer a better future for a city, according to the identification of threats and opportunities, the optimization of its strengths and the minimalizing of its weaknesses (Andersen, 1984). Fernández (2006) states that strategic planning of cities is a systematic, creative and democratic process that builds up the basis for a long-term integrated action that defines a model for future development; this model formulates strategies and directives that aim to reach the appropriate models, and creates a permanent system of decision-making and participation of the local agents throughout the whole process.

1 "Project Strategies in the Territory of Porto de Santos".

Planning is aimed towards completing actions that make possible different proposals, determine the resources required, and carry out transformations. There is a marked difference between urban planning and traditional planning, where the first aims at the process and not the final product, while the second seeks separation between design and execution of proposals (Fernández, 2006). Strategic planning is the result of integration of the different local territory administration perspectives; according to Hudak (2006), the difference between these two approaches is that whereas traditional planning is characterized by the product as a target, structured in relation to a territory or area (this is directly linked to the norms oriented by the urban offer, subject to administrative limits; this development occurs in a late and diffuse manner), strategic planning is characterized by the planning of the whole process, in which actions are integrated and coordinated, working indicatively on the issues in response to urban demands. The latter covers territory beyond the administrative bounds, acting participatively, in an early and focused manner.

Conceptually, the use of design strategies aims to obtain benefits from the territory transformation; the relationship between action and local reality is defined as: (1) a definition in the long-term global vision among different sectors, (2) identification of trends and of opportunities, (3) promotion and coordination among public institutions, (4) community activities aimed at engaging further actions, and (5) the strengthening of the urban and social network of the territory.

#### a. *Project strategy: Conceptualization*

According to Gausa (2009), a strategy that allows the transformation and connection of the maritime border can be projected through a matrix, converted in a new virtual “urban network”, which is also clear, complex, and open to simultaneous processes of redefinitions and programmatic reevaluations; thus, he defines:

- (1) Coastline, an area that includes equipped facilities in the form of living spaces.
- (2) Productive coastline, which includes a high density of identity elements, productive areas, and cultural and educational facilities.
- (3) Urban coastline connectivity, which includes living, commercial, and multiple use areas. The integration of these spaces leads to the remodeling of the internal space in coexistence with the local network and the renewal of the different territorial fronts, consolidating the urban network and considering the structural elements as opportunity reactivators that result in enjoyable public places.

Based on the development of these aspects, it is necessary to point out the need to configure

a process that defines: (1) the development of future scenarios, (2) the design and development of a desired strategic vision for the coastline, and (3) the identification of the critical issues that the territory must address to achieve a strategic vision.

In relation to the development of the work process, the actions applied to the coastline are:

1. The urban setting should be understood strategically as a long-term vision that exceeds an average 10-year time period,
2. The extension of the thematic scope of the setting, focused on an interdisciplinary basis; and,
3. The appropriateness of the local program in which the context must be developed by the joint action of both government and social agents.

The need to propose improvements within the urban limits is evident; this is based on a territory outline that considers the compositions of buildings, infrastructure and landscape for a coordinated development (Gausa, 2009). It is thus necessary to apply actions that promote urban restructuring - operations of territorial reassessment - in order to activate different contexts for the emergence of spaces with new identities. Activities integrate the collective spaces and the landscape, building a port city through collective activities and mixed operations that take place in the intersection of a range of phenomena.

The strategy is defined by the possibilities of a territory; these elements transform the landscape in the long-term and can be split into two conceptual groups:

1. Impulse: to reinvent the degraded space of the port, as it integrates elements that are characterized when applied as:
  1. Strategic booster: to promote strategic vectors of development and growth opportunities, providing new urban formulations, growth and flow inducers, density networks, articulated landscapes, and connectivity infrastructure;
  2. Coordinated infrastructure: new devices that act as inducers, providing efficiency and interaction among spaces, flows, and activities that operate between the old and the new infrastructure;
  3. Space relations: to articulate, at different scales, the possibility to integrate open spaces, operative, entertainment, recreational, sport, and experimental landscapes, providing new, continuous green areas through “landscaping”;
  4. Structural impulse: recycling and restructuring of the connectivity elements, promoting the possibility of transforming into intermodal associating devices to the topography, the diverse platforms, and the coastline;
  5. Induced strategies: induction and promotion of operations that define strategic nodes,



- acting as qualitative reactivator elements, aimed at developing global strategies; and
- Three-dimensional mechanisms: in which the mechanisms must be applied in specific areas, by section, articulating smart mechanisms that are able to provide scenarios, landscapes, infrastructure, new areas, and topographies, to allow new territorial zoning.
- Enabling: focused on creating the possibility of increasing actions by using elements that confer a new value to the degraded areas:
    - New housing: in which the scanning of a vertical density is linked to the creation of strategic definitions that necessarily aim at the formulation of mixed activities, focused on the triad life-production-leisure;
    - Economic assets: encourage the development of attractive centers for urban activities that act on the revaluation of existing places, such as heritage, landscape, education, gastronomy and social areas, through economic growth;
    - Public programs: development of programs capable of developing public actions aimed at urban change, through the creation of innovation networks, and at the same time promoting the interconnection between new and existing spaces, through local and global innovations; and,
    - Urban self-esteem: promotes the dynamism of the port space, allowing movements and paths from the creation of dynamic and imaginative environments, empowering new identities based on strategies that benefit collective actions.

Strategic definitions help develop guidelines to describe sets of elements that comprise the fabric of the city and the coastline as potentially unifying zones of transformation.

### 3.1 Applicability

Design strategies are based on the hypothesis raised conceptually and identified as a premise for the development of future scenarios that are considered on the basis of current circumstances. This article elucidates the possibility of redeveloping the cove space, according to the different relations promoted by the areas making up the present-day structure, which is characterized by a conformation of different infrastructures. This proposal considers different aspects, outlined previously, that define strategic compositions and solutions for the degraded urban fabric, established through conceptual tactical definitions, and which are mentioned throughout the present study. Strategic transformations are thus reinforced by the applicability of inducing and defining concepts, which are characterized by spaces through the following actions:

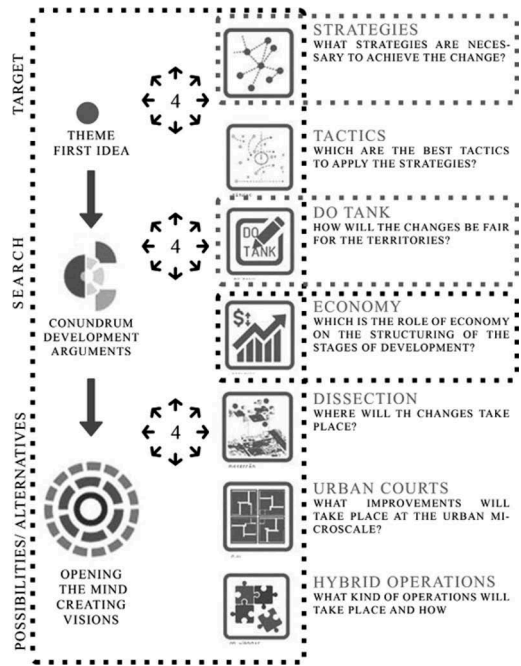


Figure 2. Diagram of project strategies. Source: LABSTRATEGY.

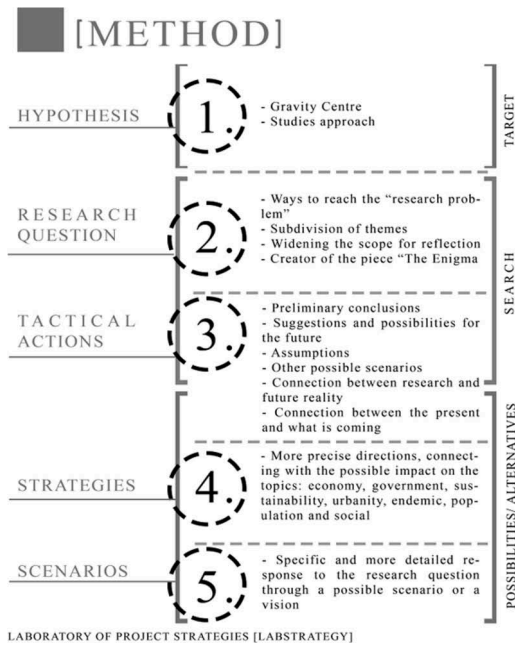


Figure 3. Diagram of project strategies. Source: LABSTRATEGY.

- (1) Re-urbanization: the creation of a new urban border, which allows structures to remain open in themselves, promoting connections with networks that penetrate the urban fabric of a port center.
- (2) Reconnection: which promotes the functionality of the limits of a port and the waters, through natural spaces that integrate both the urban fabric and the waters;
- (3) Flows: the implementation of strategies that tactically promote the orientation of roads and other sectors, for the construction of new landscapes between the city and the port.
- (4) Discontinuities: which promotes continuous spatiality in the horizontal plans, which occurs due to the absence of connectivity at different levels;
- (5) Axes in Nodes: the development of urban networks articulated for their use in the creation of continuous urbanity, which promotes the connectivity between the city and the port;
- (6) Urban recycling: by promoting strategies for the re-orienting of port development, thus improving the concentration of activities that promote new activities in urban spaces;
- (7) Continuity: recognition of potentialities that originate from the spatial differences, thus promoting continuous connectivity between the territory and the induced insertion of green areas.

### 3.2 Traditional model vs. workshop model

In order to conduct this study, the “intensive workshop” model was selected; this essentially aims at, in a short period of time and with intense dedication,

immersing in a real problem, whose development might lead to applicable results.

The previous works of the Sprechmann workshop have been taken as a reference; carried out between the 2002 and 2003 in the Vertical Workshop series in the University Ritter dos Reis, and which brought together Brazilian, Uruguayan, and Argentinean students; this workshop proposed a contemporaneous process in the teaching of architecture (Sprechmann, 2003).

The use of this model allows the establishing of creative practices, new models of experience, and the emergence of new systemic competencies for the visualization of components in a design process, moving away from the traditional model of a curricular workshop (Table 1). Drawing on this model, the aim was to answer the following research question: “How can this model be used to project in an emerging crisis situation, as opposed to the traditional project model?”

Thus, the Project Strategies Model was applied to Caleta Tumbes by means of a workshop called “Triggering experience”, in a four-day program of 8 - 10 hours per day, in which a group of 28 students, 7 teachers and 3 teaching assistants participated. The work was divided into 4 groups, each tackling the exercise according to 4 different theme areas:

- Economic - Social
- Economic - Population
- Sustainability - Endemic
- Urban - Disasters

The running of this exercise is explained in detail below:

Table 1. Comparative process between the traditional teaching model and the use of workshops as an immersion instrument. Source: prepared by the authors.

Comparison between the teaching method: traditional vs. workshop-based			
Proposal keys	Traditional teaching	Territoriality to which the actions of the process respond	Workshop-based teaching
Process and development	No specific methodology	Geographical aspects/ degraded urban zones	Use of management methodology for processes (projectual strategy methodology)
Teaching space	Workshop	Weather and climate	Fieldwork as workshop
Projectual Space	Fictitious	Real social determinant in relation to their territory	Specific determinant
Interlocutors	Professor/lecturer	Various agents involved	Multidisciplinary group
Temporary period of development	Semester or bi-annual	Immediate response	Brief and intensive from 4 to 7 days
Studentships	Formation in terms of prerequisites-separations by levels	Diverse areas of knowledge and educations	Multiple levels
Teaching-learning relations	Academic relations professor – student	Territorial practice by means of theatrical confrontations	Non-hierarchical -horizontal relations – various interlocutors (guidelines, stakeholders, guests, others)
Approaches	Architectural and Urbanism	Multiple knowledge areas	Multiple-scale territorial scenarios understood as landscape
Results	Projectual hypothesis	Protocols	Applied scenations

*Day 1 - Probing the territory: field trip and survey of indicators*

During this field trip, the following activities were conducted: identification of stakeholders of the territory, dialogue with the local community, identification of coastal and urban conditions, formal and informal commercial and housing relations, research on the action of the fishing community and of the network of women in the harvesting of algae, experience of consumption by the territory, and data collection through sketches, interviews, and photographs.

*Day 2 - Doubt and doing as instruments of thought*

Workshop activities were held within the university facilities; these activities included: the definition of concepts based on the Project Strategies model, mapping of aspects of the locale, thematic seminar and discussion of goals, structuring of working groups and initial demands of the SERVIU. Preliminary review of ideas and collection of macro visions to understand the territory. Structuring of indicators for the territory by theme, definition of zones of territorial appreciation, organization of tactical actions, workshop activities, and group debates with teachers and actors of SERVIU.

*Day 3 - We do, think and execute*

This day included an initial approach to the guiding questions, a review of the applied tactical actions of the territory, a debate on the meanings of applicability of the strategies, a thematic dialogue with the teachers, collection of visions of urbanity and reflections of experiences. This was an intensive day of reflections among the groups of students, conceptual revisions and decision-making, based on their knowledge; it concluded with a presentation of the activity results given to the teachers. The presentation encompassed a review of the final hypothesis, the results of the workshop with teachers and SERVIU representatives, application of strategies, and of technical concepts and formulation of scenarios for the community of Tumbes.

*Day 4 - Tuesday great party*

Printing of the results on presentation sheets and final display to government representatives, teachers and students.

## 4 RESULTS

The results of the workshop are described below, summarizing the development of each group according to theme, from devising the hypotheses to presenting a strategic proposal.

### b. *Economic - Social*

This group built up the analysis from the indicators obtained mainly from a census of the present uses of

the coastline, the uses of planned territory (Communal Regulatory Plan), commercial facilities, occupation, age range, and educational background of the population, along with geographic indicators and escape routes from the cove.

The main concern of this group was to promote the restructuring of the urban fabric using characteristic elements to foster the revaluation of elements in degraded areas. For this, they proposed the hypothesis that “the articulation of pre-existing nodes along with the recycling of disused land, generates a system that promotes the circular economy and social identity of fishing in Tumbes”.

The main strategies and proposals are related to suggest a system of common spaces, recycling some deteriorated spaces, building a pedestrian promenade that connects the entire circuit, and adding transverse routes that lead to viewpoints in the hills.

### c. *Economic - Population*

The main indicators of this group were related to the population (age range, sex, income) and the planned land uses, geographical conditions of the cove, location characteristics, and types of housing occupation.

The proposal of this group was to bolster the infrastructure, spatial relations and recycling, along with the restructuring of connectivity. Also, they sought to promote the economic centers, programs for public areas and urban self-esteem, seen as strategies for collective benefit.

Their hypothesis was based on the fact that “reducing the residency/work gap - achieved by relocating the houses at the top of the hill - will reconnect the fishermen with their trade, boosting local production.”

The main strategies and proposals were: the intervention for the coastline, creating a defensive wall with steps (contemplation and meeting areas), a coastal pedestrian route, a funicular railway as a hill-coast connector, and work spaces for drying algae on the slopes of the hills, as a functional connector between housing and fishing.

### d. *Sustainability - Endemic*

The indicators of this group were related to the roads around the cove, urban voids, and landscape elements and components.

It was agreed to promote the strategic vectors of development and opportunities, the spatial relations and the structuring and recycling of connectivities. It was also decided to promote centers of activities and flows as a collective benefit.

The hypothesis stated that “through urban reorganization and sustainable mobility, the value of the landscape and identity are incorporated, recovering the local maritime heritage.”

As the proposed solution, they presented a series of measures for the management and control of waste and residues, as well as other elements related to health and wellbeing: green areas and

infrastructure, a funicular railroad connecting public spaces and other facilities in hills with the coast, a coastal walk, cultural elements and bike paths.

e. *Urban - Disasters*

The main indicators for this group were roads, land use, building heights, evacuation routes, streams, and risk areas. Based on these indicators, they promoted coordinated infrastructure, spatial relations, and strategic and structural drives, while enhancing public programs and urban self-esteem.

The hypothesis stated that “the pressure to occupy the coastline, together with the geographical characteristics of the site, generate conflict and disorganization among the various agents of the place, resulting in increased vulnerability of the coast to the risks of natural disasters and exploitation of natural resources.”

The result of the activity was the creation of a set of strategies that combine proposals for disaster prevention, tourism, resilience, and urbanism, such as the creation of escape routes and safe spaces - which also serve as squares and viewpoints -, defensive breakwaters that double as promenades, a funicular railroad, and connecting routes for pedestrians and vehicles.

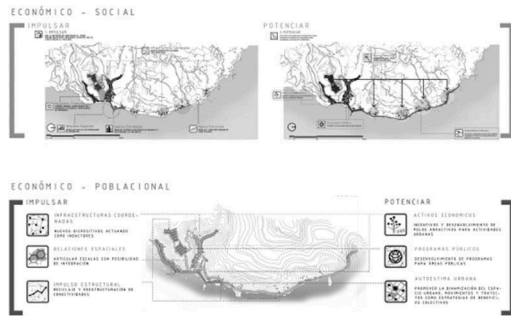


Figure 4. Indicators for each working group. Source: prepared by the authors.

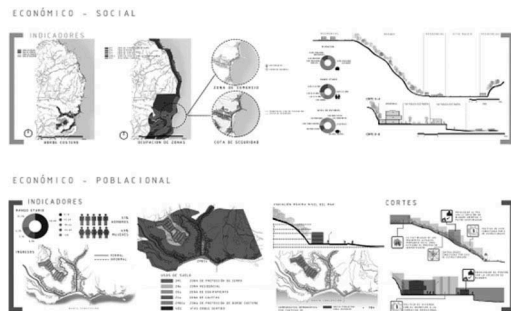


Figure 5. Elements to Promote/Potential of each work group. Source: prepared by the authors.

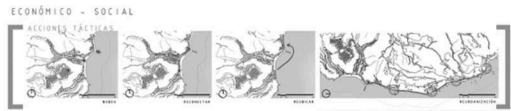


Figure 6. Hypothesis by work group. Source: prepared by the authors.



Figure 7. Tactical actions for each work group. Source: prepared by the authors.

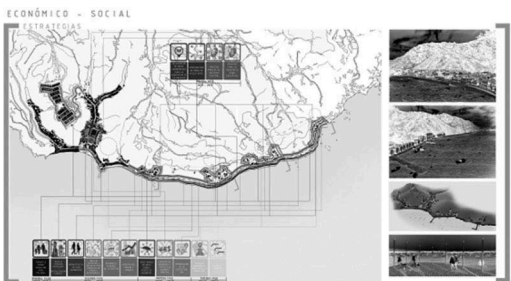


Figure 8. Strategies and scenarios of Economic/Social (top) and Economic/Population (bottom) groups. Source: prepared by the authors.

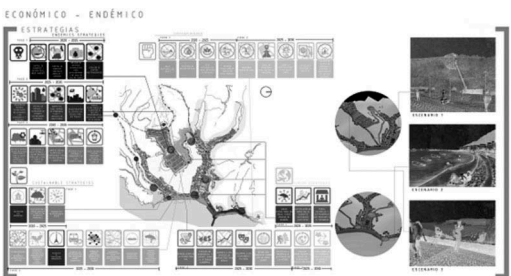


Figure 9. Group strategies and scenarios Sustainability/Endemic (top) and Urban/Disasters (bottom). Source: prepared by the authors.

## 5 CONCLUSIONS

The process of knowledge production throughout the field workshop promoted a work structure based on four working groups, divided by specific topics with the common condition of resilience as a guiding element in the process of transformation of Caleta Tumbes.

The use of the methodology proposed in this territory allowed a specific approach to the existing economic, social, and cultural aspects by incorporating them into the proposal: making contact with the Algueras Cooperative (women dedicated to the collection and drying of seaweed) and with the network of local fishermen, along with creating the possibility of understanding the tourism aspects and the promotion of a significant gastronomic economy for the region, quickly built a base scenario on which to construct the proposal.

Getting to know the inhabitants, their spaces, activities and needs make it possible to promote and articulate the territory - through the work of the teams -, which will be organized in relation to specific views in the search for the formulation of scenarios based on the application of economic strategies, governance of sustainability and urbanity.

The use of indicators and data led to a detailed description and understanding of the territory, allowing us to promote or enhance local specific qualities and characteristics, which helped to formulate the hypothesis that aims to improve the area in the medium and long-terms. It is worth noting at this point the need to gather more data for other smaller sites, since much of the information is only available for medium or large cities, overlooking territories with smaller populations.

The development of the hypotheses allowed the researchers to structure the elements from local resilience, so that it has the contribution by specific actions based on each of the topics. At this point, the similarity of the workshop format with the real working conditions stands out, due to the

collaboration of members of state organizations (SERVIU/MINVU), which allowed continuous reflection during the whole workshop, contributing with visions, regulations and knowledge from the professional work in the development of strategies.

This exercise is regarded as a starting point. It is set to continue with further workshops in other coastal locations, to build a body of knowledge around this territorial system, providing the communities with strategies and also proposing new forms of intervention and scenarios for decision-making by local governments.

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