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## RESEARCH ARTICLE

### INTEGRAL MODEL FOR THE RESILIENCE OF HISTORIC CENTERS IN COASTAL CITIES

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#### ABSTRACT

Historical centers (HC) are confronted with a diverse functional reality where different environmental factors or variables could break precarious equilibriums becoming complex spaces of indefinite limits which result from urbanizing processes imposed city model by official planning. Through a research documentary, it's been tried to synthesize art's state in the subject of resilience of HC in coastal cities with functional problems, to establish a whole designed model of resilience, which regards as a system, the various subsystems in balance with all environmental factors, which guarantees urban sustainability. To have a whole plan for it's resilience will allow institutions involved in urban development to create effective programs, contributing to sustainable development of the city.

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## INTRODUCTION

There are several realities which make the study of coastal urban development in a global scale interesting in managing coastal areas. One of them, is the fact that around 40% of the world's population (Burke et al., 2001; IOC/UNESCO, IMO, FAO, UNDP, 2011) live in coastal areas. Which means a great demographic concentration in a limited quantity of the earth's surface (between 4% according UNEP (2006) and 15% according Cohen and Small (1998)). And implies finding enormous amounts of goods and services (supplies, regulations, cultural) which come from marine coastal Ecosystems.(Barragan y de Andrés, 2015, p. 66). Institutions actually involved with the "movement in favor of resilient cities" are: 100 Resilient Cities, Cluster for Sustainable Cities, Resiliencia urbana en América Latina. FUNDACION IDEA, Sendai Framework for Disaster Risk Reduction 2015-2030. UNISDR/UCLG, City Resilience Profiling Programme (CRPP), ONU-Habitat. World organizations that show the great existing concern around the scarce sustainable urban development present in today's cities and especially in coastal cities. Therefore, it is of great interest for the scientific community and social concern, to develop in theoretical and practical terms the application of urban resilience as a new opportunity for research, for urban planning policies and social

development planning that will adapt and transform cities into less vulnerable habitats to physical, social and economical challenges which are part of the XXI century.

**Description of the problem:** The HC, especially those of coastal cities, confront deep functional and social changes in which historical, economical, environmental, touristic, social and cultural variables intervene among each. This is why urban realities are in permanent conflict due to pressure generated by changes between old and new functions in them. Hence, the difficulty in urban planning to adapt past scenarios into the demands of today. Social economical and technological changes of great proportions which we are experiencing in the last decades (technological revolution, media advances and telecommunications, flow of mass tourism or globalization of consumption), are forcing us to reconsider under new terms the question of HC functionality. To achieve a higher efficiency in protection and recovery policies, tools must be found capable of regulating the existing tension around the environment in the HC in coastal cities. Time has come to weigh and evaluate the effectiveness of the means which have been applied to solve these problems, proof that no success has been achieved in finding functional solutions, taking into account the complexity and peculiar surrounding of these HC embedded in these cities. That's why, it's become necessary to revise this situation having as a goal a documented investigation, to give an answer to the following question which defines the scientific problems:

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How can we summarize the state of the arts included in the subject of resilience of coastal cities and create awareness to design an inclusive plan of action resilient, that beholds as a system the different subsystems in equilibrium with the environment?

**Being the starting hypothesis:** If we take into account the current sustainability in HC of coastal cities and promote awareness in order to design a comprehensive model for sustainability which addresses the variety of subsystems and other factors in the mix as a single system, the institutions involved in urban planning would be able to build effective programmes that contribute to the sustainable development of the city.

**Current position:** By examining research on this issue, I intend to clarify the range of documentation and define the concept of sustainability in HC. Fortunately, the perception of HC has changed. Initially conceived solely in terms of sites of architectural value, such sites are now considered more broadly, in terms of historical, sociological, economic and symbolic value. The following national and international sources were: Teseo (Portal of Spanish Dissertations), Dialnet (Databases of scientific content in Ibero-American languages), Dart-europe (European portal formed by associations of research libraries and library consortia), Tdr (Dissertations online), Oatd (Open Access Theses and Dissertations), Ndltd (The Networked Digital Library of Theses and Dissertations), OpenThesis. (Academic Document Database), OpenGrey (Information System on Gray Literature in Europe), Google Scholar, Redial-Tesis and Portal of Latin American Dissertations.

The search process was carried out in the following fields: Rehabilitation of Historic Centers, Urban Resilience and Historical Centers in Coastal Cities. In the exploratory phase of the documentary research were found the following documents related to the subject.

#### About Rehabilitation of Historic Centers:

- J Means to communicate heritage: Communication skills in the HC's Habana, Cuba. (Medios para comunicar el patrimonio: entramados comunicativos en la rehabilitación integral del centro histórico habanero).
- J Resik confirms how communication processes cannot be disconnected from any contemporary strategy and Heritage Management.(Resik, 2017).
- J Returning to HC: Heritage recovery and how it's subject to urban dynamics. Seville is an example in Spain. (Volviendo al centro histórico. La recuperación diferencial del patrimonio y su supeditación a las dinámicas urbanísticas. El caso de Sevilla.)

Jover highlights the complexity in some of the HC where urban dynamics and heritage are related in condensing a city's memory. He studies the character, the intensity and the rhythm at which are built urban and heritage dynamics in HC as far as International Levels, focusing in West Europe and more specifically in Sevilla's case, in Spain (Jover, 2017). Cultural urban centers: Historic study, value and whole recovery thru Rehabilitating the heritage building. Today's situation and process in Paraty Brazil. (Centros urbanos culturales: estudio histórico, puesta en valor y recuperación integral a través de la rehabilitación del patrimonio inmueble. El proceso y situación

de Paraty, Brasil). Marquez proposes to set the value of the heritage building of Paraty in Brazil, taking its historical, economical, social and cultural aspects, to be able to establish common sense of public property and cultural heritage in society. (Marquez, 2016). Creating urban borders within the Cities's HC. Valencia is an example in Spain. (La generación de bordes urbanos en el interior de los centros históricos de las ciudades. EL caso de Valencia).

Santiesteban defines urban heritage as a means of preserving collective memory and as a reflection and reference of a society's identity, as being the sole and irreplaceable whose maintenance depends on society's acknowledgement (Santiesteban, 2017). Recovering heritage and tourism in HC of the Laguna in Spain. (Recuperación del patrimonio y turismo en centros históricos. San Cristóbal de La Laguna). Rodríguez focuses on heritage recovery of the historical center of San Cristobal of La Laguna, as a consequence of the increase in tourism, which causes changes in different strategies that had been applied to this sector.(Rodríguez, 2016).

- J Pelotas's HC in Brazil: Urban evolution and actual management. (El centro histórico de la ciudad de Pelotas. Evolución urbana y gestión actual).
- J Gómez talks about the preservation of Pelotas heritage in Brazil. He studies urban evolution, historical architecture, a catalogue listing the buildings and from there, he takes measures for in the buildings intervention.(Gómez, 2016).
- J Urban archeology and HC planning from la C.A.V. (Spain) critical analysis, new propositions and future perspectives. (Arqueología urbana y planificación de los centros históricos de la C.A.V. Análisis de crítico, nuevasprouestas y perspectivas de futuro).

Bengoechea has written a paper on today's urban archeology from Comunidad Autónoma Vasca which shows clear symptomslack of Depletion to make proposals for the future that would allow to redefine the situation (Bengoechea, 2016).

- J Social production participative process and sustainable aid in HC public spaces. Pamplona is an example in Colombia. (EProducción social, proceso participativo e intervención sostenible en el espacio público de centros históricos. El caso de Pamplona. Colombia). Giraldo deepens his method to diagnose and participative design to evaluate and aid in preserving architecture urban heritage, with a specific application for the public space in Pamplona's CH.(Giraldo, 2016). Urban reboosting as base for touristic planning in Bogota's downtown, The Candelaria. (La Revitalización Urbana como base de la planificación turística en el centro de Bogotá, sector de la Candelaria). Sanchez analyses how countries in their aim to be part of the so called globalization focus their efforts in planning strategies, using cultural tourism as an economic activity for their HC.(Sánchez, 2016). Urbanistic transformation in HC of Tunja in Colombia 1623-2008.(Transformaciones urbanísticas del centro histórico de Tunja Colombia 1623-2008). Buitrago focuses in a city declared world national heritage which has lost part of its monuments due to lack of heritage Policy. He analyses urbanistic evolution and its policy consequences which have come from decisions taken throughout the last decades (Buitrago, 2014).

- ) The responsibility of preserving urban HC and rehabilitating. (El deber de conservación y rehabilitación de los centros históricos urbanos). Garcia studies the means available in today's regulations regarding HC from an international perspective as well as that of Spain, the study was conducted in some European countries and Ibero America (García, 2014). Methods to prioritize and plan, in a sustainable way, the Rehabilitation of degraded structures: Extreme Cases La Habana's HC. (Metodología para priorizar y planificar, de manera sostenible, la rehabilitación de estructuras degradadas: caso extremo del centro histórico de La Habana). Piñero's Goal is to elaborate a method which Will allow to prioritize and choose in an objective way, which of the 3.585 existing buildings in La Habana should be considered for its rehabilitation. He intends to achieve a Sustainable Prioritization Index (Piñero, 2013). Sustainable urban Strategies of integrating and rehabilitating the HC from Puebla, Mexico. (Estrategias de integración y rehabilitación urbana sostenible en el centro histórico de la ciudad de Puebla-barrio de San José, México). Ramírez comes up with a methodic proposal of multidisciplinary reach, focused on creating a model of sustainable urban rehabilitation for the neighborhood of S. Jose in México. (Ramírez, 2013).
- ) Rehabilitating Homes thru special planning in the HC of Barcelona, Spain. (La rehabilitación de viviendas a partir de los planes especiales de reforma interior en el centro histórico de Barcelona). Torres carries out an architectural study on how to intervene in the boroughs of La Barceloneta. The research aims at stablishing a way in which Construction Techniques are capable of solving actual problems in the buildings in the HC of Barcelona. (Torres, 2013).
- ) The Quality of Urban image to promote tourism Rehabilitation and renovation of HC's Pinar of Rio, Cuba. (La cualificación de la imagen urbana para el fomento del turismo: rehabilitación y renovación del Centro Histórico de Pinar del Río).
- ) Labori sets a proposal of a plan as a whole to evaluate and prevent the HC of Pinar del Rio, its goal to fescue the esthetic, architectural and social-cultural, services of the urban image to contribute in the creation of guest houses and a more balanced economical development. (Laborí, 2007).
- ) Architectural heritage's cultural dynamics: Sustainability and Development. (Dinamización cultural del patrimonio arquitectónico: sostenibilidad y desarrollo).
- ) Garcia analyzes the problems historical cities have facing the future with a great ancient heritage. Tourism, cultural industry and sustainable development decentralization public and private cultural policies are some of the concepts in this study. (García, 2005).
- ) Urban intervention in the HC. (La intervención urbanística en los centros históricos).
- ) Segura analyses the laws for intervening in HC, keeping in mind always, the need to reform the structure to guarantee people's quality of life as well as to preserve its historical values. (Segura, 2005).
- ) From crisis to the Rehabilitation of HC from Valencia, Spain. (De la crisis a la rehabilitación de los centros históricos: la Ciutat ella de Valencia).
- ) Fernández studies social and urban reality of Valencia's HC in order to proof that actual urban planning model is not making any positive contribution to social recovery. (Fernández, 2000).
- ) Buenos Aires: HC and social crisis. (Buenos Aires: Centro Histórico y Crisis Social).
- ) Loures evaluates the different urban policies that have been carried out in the HC of Buenos Aires since the 70's and their impact. (Loures, 1987).
- ) Towards an architectural restoration theory and study of HC. (Hacia una teoría de la restauración arquitectónica y estudio de los centros históricos).
- ) Benavides carries out a historical analysis of restoration theories used in HC, criticizing the legal loop hole that excises emphasizing the need for reciprocity between building's restoration and conservation of the HC. (Benavides 1997).
- ) The invasion and succession process in Zaragoza's HC, Spain. (El proceso de invasión-sucesión en el centro histórico de Zaragoza).
- ) Soler examines the population and urban growth in Zaragoza's HC until the end of XIX century, its goal to carry out a series of proposals on how to rehabilitate and a summary of today's situation. (Soler, 1991).
- ) Canary's HC in Spain. (Centro Histórico de Canarias).
- ) López approaches the different concepts of HC and their evaluations carried out throughout the XX century on the Canary Islands. (López, 1990).
- ) Granada's Historical complexes in Spain: delimitation, planning and Rehabilitation (1985-2015). (Conjuntos históricos de Granada: delimitación, planeamiento y rehabilitación (1985-2015)).
- ) Fernández objective is to know the methods and processes used to declare a HC, to know the editing process approval and how the protection planning is carried out and therefore, to describe the given relationship between the administrative procedures and final result in bordering the different HC in the nearby villages. (Fernández, 2017).
- ) Sustainable Rehabilitation in the HC: applied to Homes in the neighborhood of Seu Xerea in Valencia, Spain. (Rehabilitación sostenible en los centros históricos: aplicación a los edificios de viviendas del barrio Seu Xerea de Valencia).
- ) López looks into the actual concept of Sustainability and its application to urbanism and architecture in the city of Valencia, more specifically in the neighborhood of Seu Xerea. (López, 2016).
- ) Heritage building of the Granada's University in Spain. Rehabilitation of Historical buildings and new site. (Patrimonio inmueble de la Universidad de Granada. Rehabilitación de edificios históricos y nuevas sedes).
- ) Vilchez centers himself in the evolutionary, architectural and urbanistic analysis of the school San Pablo in Granada without omitting the political economical and cultural of each historical period, accompanied by planning. (Vilchez, 2017).
- ) Sustainable Rehabilitation of Historical residences in Santiago, Spain. (Rehabilitación sostenible de viviendas históricas en Santiago de Compostela).
- ) Linares has carried out this research with the sole purpose of boosting the importance of the HC in contemporary cities. He focuses on new tools to remodel historic residential buildings in the north of

Spain, in the city of Santiago de Compostela (Linares, 2012).

- J) Evaluation of Cadiz's HC and urban policies in Spain. (Evaluación de la política de rehabilitación urbana en el casco antiguo de Cádiz).

Acosta starts from the hypothesis of the lack of efficiency in rehabilitation the HC in Cadiz. The essay starts with a recommendation to carry out. A study on such performance as well as the effects that some authors imply should be met. At the same time, it considers the different urban economical theories which deal with some aspects related to territorial incidence and policies analyzed (Acosta, 1997). Protection, conservation and Rehabilitation of residential urban heritage. (Los catálogos de protección y la conservación y rehabilitación del patrimonio residencial urbano). Sardizastudies the norms available to preserve and protect common architectural heritage from a legislative Spanish perspective. It states "Architectural Heritage" as a much broad concept, not limiting it to buildings considered special, like monuments, historic or artistic but taking into account of all the buildings or sites of special values, merit or for belonging to a type of construction, a period or a city époque (Sardiza, 2013).

- J) Environmental values of Cadiz's historical Architecture in Spain, strategies for Rehabilitation. (Valores ambientales de la arquitectura histórica en la ciudad de Cádiz: estrategias para la rehabilitación).
- J) Rubio shows to what extent is transcendental the Knowledge on how to adapt to the city's environment and their heritage to give viable solutions. (Rubio, 2014).
- J) Intervention criteria to rehabilitate exemplary public residential Architecture: study cases colonizing villages, The Puntalón, Carchuna y Calahonda in Spain. (Criterios de intervención para la rehabilitación de casos ejemplares de arquitectura residencial pública: casos de estudio pueblos de colonización, El Puntalón, Carchuna y Calahonda).
- J) Espinosa bases himself on a research carried out in Italy, prin under whose title were carried out several examples of architecture in a national level. Shares the basic method and analysis, creating a parallel development focused on the reading of the project, based on recreating archives and historical knowledge, without overlooking the bioclimatic component and its applicability of the study before a possible project result. (Espinosa, 2013).
- J) The role of urban and territorial order in managing and preserving world heritage in smaller cities and HC from Cuba. (El papel del ordenamiento territorial y urbano en la gestión y conservación del patrimonio de ciudades menores y poblados históricos cubanos).
- J) Menéndez analyzes how throughout centuries, Cuba, has created its cultural personality and defined the facts which identify it. Evolving at the same time as has done history as far as the subject is concerned (Menéndez, 2015).
- J) Methods analyzed for heritage recovery in urban protected environments. Method proposal: from Historical values to new energetic models. Since the XIX century. (Análisis de las Metodologías para la recuperación patrimonial de entornos urbanos protegidos. Propuesta Metodológica: desde los valores

históricos a los nuevos modelos energéticos. Russafa desde el siglo XIX).

Jiménez analyzes how the cities growth had a point of inflection with the industrialized city over the century XIX, on free land, actually it has used up more available land urbanized then the real needs. (Jiménez, 2014).

1. Public space in HC of Puebla, Mexico. (Espacio público en el centro histórico de Puebla-México). Hernández gives a panorama of what public space means locally, therefore giving testimony of what's happening as far as spreading its wealth and analyze its lack of maintenance. (Hernández, 2009).
2. Heritage policies: urban planning and HC Development in Quito, Ecuador. (Política patrimonial; planificación urbana y desarrollo en el Centro Histórico de Quito, Ecuador). Gómez analyzes policies developed by the tutors of heritage contents from CH's Quito . He develops conservation policies from the beginning of the XX century until the late 80's, whose answers to the problem where the monuments criteria to isolate the buildings from a social-economical context, to favour a slow decay. (Gómez, 2000).
3. Awareness to preserve urban heritage: ways of recovering Madrid's Embajadores. (Concienciación para la conservación del patrimonio urbano: los instrumentos de gestión para la recuperación del barrio madrileño de Embajadores). García refers to the evolution of awareness ness in preserving heritage in the HC and the tools used in the Rehabilitation process in Madrid's HC. (García, 2013).
4. Registry, catalogue and planning of architectural urban heritage, an Approach to the case of Valencia in Spain. (Registro, catalogación y planificación del patrimonio urbano arquitectónico: una aproximación al caso valenciano). Broseta shows deep knowledge regarding the complex question, such as its cultural heritage in the urbani field, its purpose is to lead to useful ways of preserving heritage values through urban and territorial planning. He suggests toudate and digitalize Valencia's catalogue. (Broseta, 2014).
5. Urban transformations in the city of Aviles, Spain(1980-2010). (Las transformaciones urbanas de la ciudad de Avilés (1980-2010)). Menéndez analyzes the role of architecture and public art in renovating spaces in Aviles, as well as value in cultural heritage an artistic-historic. (Menéndez, 2013).
6. Segregation, urban intervention and social change from Seville in Spain, gentrifying the area of San Luis within the general planning of 1987. (Segregación, intervención urbanística y cambio social en Sevilla: la gentrificación del sector San Luis-Alameda en el Marco del Planeamiento General de 1987).

Even though, in Spain much has been written about degraded historic neighborhoods and their renovation, it's just in the last decade that they have linked this to gentrification. Diaz describes the research project defended as Seville's gentrifying process (Díaz, 2011). The Ontario Heritage Act and the provincial program, an alternative model for heritage conservation.

Ángel makes a critical analysis on the origins and history of Ontario's program to preserve heritage from 1970 until today. The administrative based structure on the community which characterizes the rising concept of social value, in which is understood it is traditional relationships between people and places which are part of heritage sites.(Ángel, 1998). Towards sustainable renovation. three research projects. Botta carries out a study based in housing areas. His goal is that to present an interpretation of sustainable renovation that includes careful and respectful renovation in the environment as necessary items in sustainable development (Botta, 2005). A cultural heritage resource management plan for Thulamela heritage site.

Nemaheni creates a managing Plan for cultural heritage resources in Thulamela. (Nemaheni, 2006). Urban renovation strategy for HC: San Bernardo's. Case in Bogota, Colombia. (Estrategia de renovación urbana para centros históricos: el caso del barrio San Bernardo en Bogotá, Colombia). Ibarra studies how the renovation of urban centers in Colombia has accomplished the most success in the last 10 years. This subject has been studied from architectonic, urbanistic, economic, legislative, political, social and environmental point of view (Ibarra, 2014). Management of HC in Brazil: the world heritage cities, the case of Brasília and São Luís.(Gestão de centros históricos no Brasil: as cidades patrimônio mundial, o caso de Brasília e São Luís). Reis feels the perception of a little tiredness in the managing process adopted in Brazilian HC. Confronted with this reality he aims at finding a way to place the cities under this context.(Reis, 2011).

#### On Urban Resilience:

- ) Workban Resilience and (un) sustainability. Exploring the nexus between resilience and urban systems.
- ) Chelleri considers urban Resilience as a multidisciplinary concept to explore the capacity of reaction, adaptation, reconstruction and transformation of these cities, always focusing on the following criteria "Whose resilience, to face what and for whom?(Chelleri, 2012).
- ) A Resilience transition for Sustainable urban development: a process design methodology to Support participatory decision making.

Tollin focused in a study on how climate change affects the many aspects of life in acity, from air quality to consumption patterns.(Tollin, 2015).

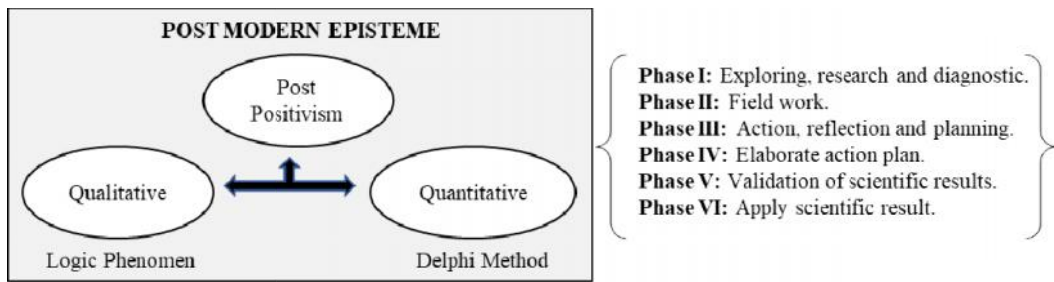
- ) Ecosystem services in practice: well-being and vulnerability of two European urban areas.
- ) Depietri explains how ecosystems contribute to improve the quality of life in cities, using middle size urban, European areas with the help of empirical studies. He explores the how and why urban zones could take advantage of ecosystems to improve the well being of its inhabitants. Depietri researches on Cologne, Germany and Barcelona, Spain.(Depietri, 2015).
- ) Architecture and illusion: 9 magical categories in spaces. (Arquitectura e ilusión: las nueve categorías mágicas del espacio).
- ) Fernandez establishes relationships between architecture and illusion when the first one approaches the second one when the project relies

on the creation of realities based in low probability. (Fernández, 2013).

- ) Learning from practice: enhancing the resilience of cities through Urban Design and Planning.
- ) Clarke based himself on practice the examples to find new ways of improving the cities resilience through its urban design and planning.(Clarke, 2015).
- ) Urban Resilience - Evolution, Co-Creation, and the Remaking of Space.
- ) Poland shows his dissatisfaction with the great urban areas, its excessive dependence on big cities and the spectacular space.(Poland, 2016).
- ) Resilience theory: a framework for engaging urban design.
- ) Cunningham explores the addition of resilience to the theory and literature of landscape architecture.(Cunningham, 2013).
- ) Exploring the Paradox of Sustainable Urban Development: Towards Urban Resilience?
- ) Dorset tries to explore the boundaries to create resilient, residential communities to establish ways to reduce the impact of oil process and climate change.(Dorset, 2019).
- ) Evaluation of the contribution of the master plan in the construction of urban resilience and sustainability in the city of Bogota.
- ) Homes carries out a study in the city of Bogota, related to territorial planning order in his country as means of planning and construction in a city highly susceptible to climate change.(Homes, 2017).

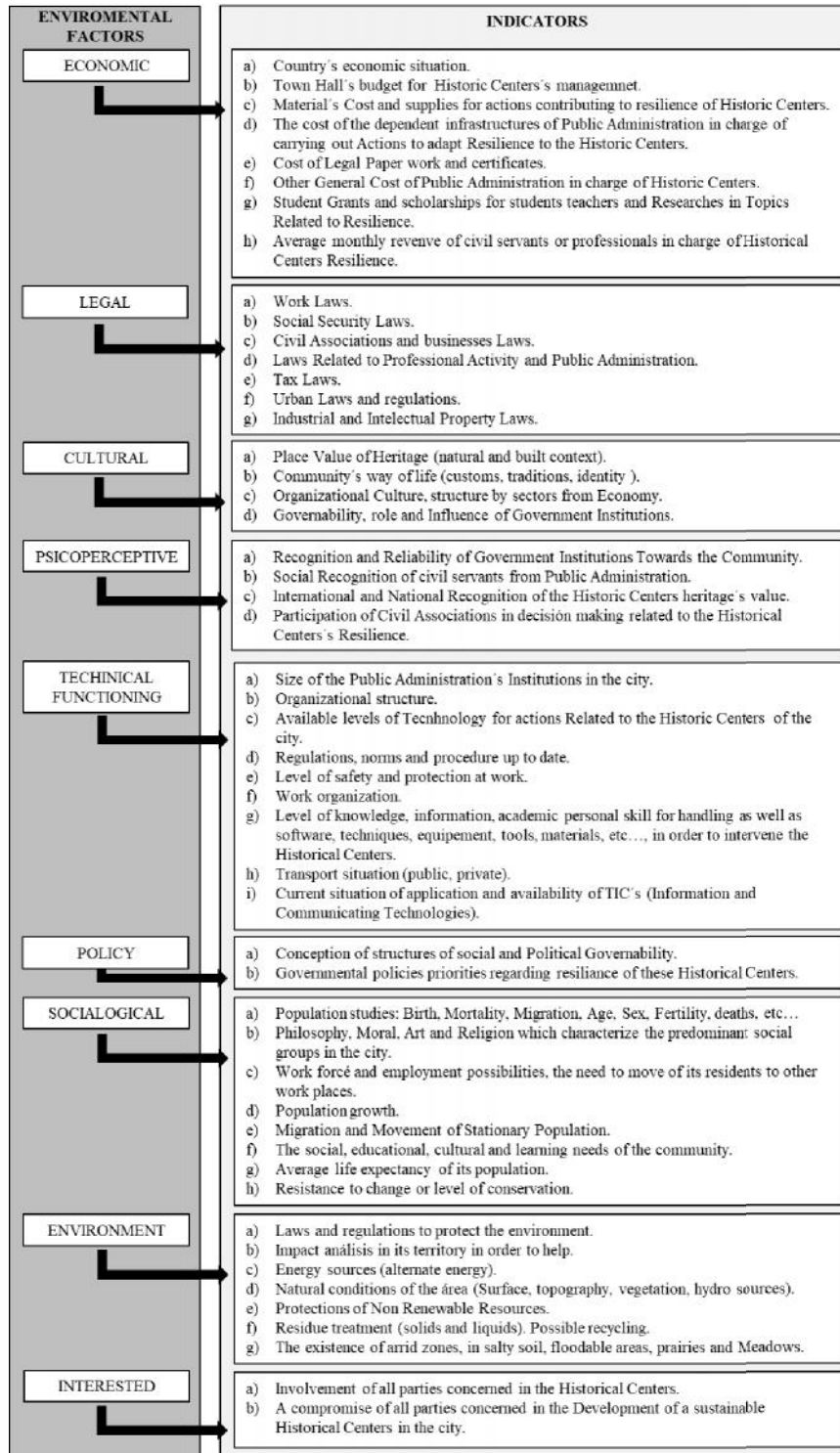
#### And CH in coastal cities

- ) Urban transformations in intermediate coastal cities in the Spanish Mediterranean-South Atlantic context. (Transformaciones urbanas en ciudades costeras intermedias en el contexto mediterráneo-suratlántico español).
- ) Homes carries a study in the city of Bogota, related to territorial planning order in his country as means of planning and construction in a city highly susceptible to climate change. (González 2015).
- ) Ways of thinking in the heritage and tourist management of the historic city. (Corrientes de pensamientos en la gestión patrimonial y turística de la ciudad histórica).
- ) Barrera analyzes the tourist adequacy of the historic city and how this process affects urban heritage.(Barrera, 2014).
- ) Global changes and its incidence in social natural risks. The case of Rincon de la Victoria in Spain. (Los cambios globales y su incidencia en los riesgos socio naturales. EL caso del municipio Rincón de la Victoria histórica).
- ) Jiménez studies recognizing the sector's global transformation from an urbanistic point of view, which has affected Rincon de la Victoria in Spain.(Jiménez, 2012).
- ) Hybris modernities in Uruguay 1925-1950. (Modernidades híbridas en el Uruguay 1925-1950).
- ) Betozola analyzes what is understood as modern and its relationship to architecture. In this sense, among the diverse manifestations in arts and architecture, detects the advances made at the beginning of the XX century,

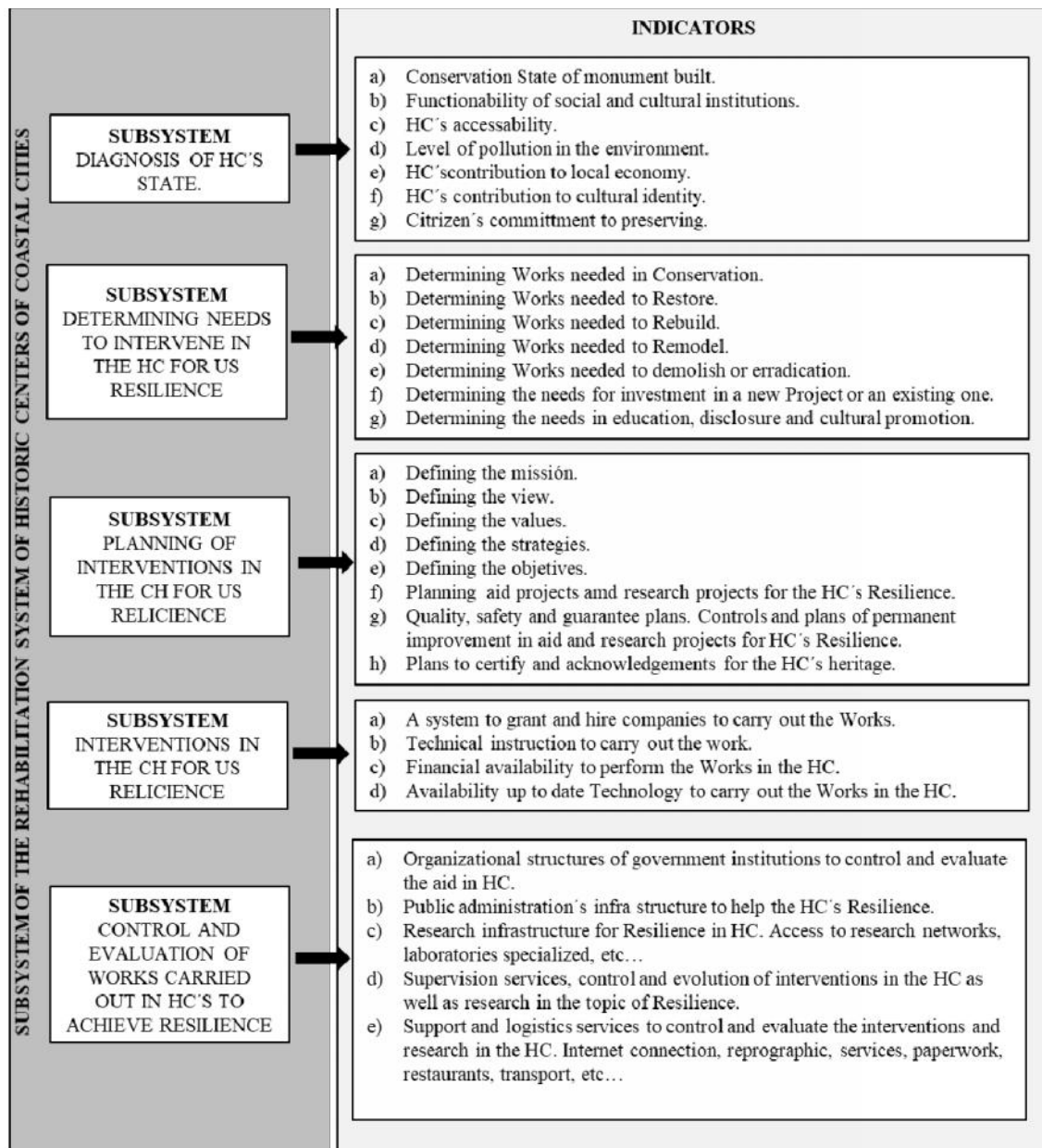


Diagrams 1. Method for research Episteme Post Modern

Diagrams 2. Subsystems and indicators of the Resilience System of HC of coastal cities



Diagrams 3. Factors and indicators surrounding HC in coast cities



Source: Self made. 2020

- ) concluding to what is today understood as orthodoxy modernity and expressive language associated with.(Betzola, 2015).
- ) An Integrated Approach to Coastal Zone Management of Abu Dhabi Western Region.

Al-Harhi describes the challenges to reach sustainable development in Abu Dhabi Emirate, by allowing new growth opportunities in both the private and industrial sector which contribute to population growth. Al-Harhi offers recommendations to implement a better management through the use of approaches in coastal zone (Al-Harhi, 2018). Coastal community development in the Caribbean via small boat cruising tourism, an examination of sustainable tourism development in George Town, Exuma, Bahamas. Dobson analyzes the relationship between cruise ships, tourism and sustainable development, exploring several factors; economical, cultural and environmental, requirements for the development of these Caribbean Coastal Communities (Dobson, 2000).

- ) Barriers to Sustainable Coastal Development in Puerto Peñasco, Sonora, México.
- ) Bryant describes environmental conditions as well as economical and social ones which define Peñasco, also identifies specific borders which are blocking the successful initiatives to manage sustainability at local, regional and national level. (Bryant, 2007).
- ) Efforts to promote tourism as a catalyst for urban redevelopment in Florida insights from the anthropology of tourism and a noted bibliography.

Collins focuses on the efforts put into reurbanizing several areas in Florida starting with tourism anthropology and noted bibliography (Collins, 2004).

## METHODS AND RESULTS

As a result of this exploratory stage, one can summarize as regarding the subject of resilience in general and determine the subsystems within the rehabilitation and factors involved in each specific case of these coastal cities. In the following



stages or the subject's research, under the episteme post positive and the social-critical paradigms, with a mixed approach in the use of methods and qualitative and quantitative techniques of investigation (diagram 1) use to elaborate a whole plan and will apply it to study, that expects cases to double check whether these institutions involved in urban planning could create effective programs contributing to a sustainable development of the city if They had such an integral model. In diagrams 2 and 3 it's shown the end result of such synthesis, the factors in the HC's Environment and the subsystems involved in their rehabilitation.

## DISCUSSION

Having analyzed the contents of the researches consulted, conclusion came upon identifying the factors leading to a functional analysis of the resilient proposals for HC's urban sustainability in coastal cities, had not been submitted directly by any study, therefore, its's necessary to come up with new lines of research, applicable to coastal cities with functional problems. It has called our attention highly, the number of researches carried out concentrating exclusively in heritage conservation, helping their recovery by touristic alternatives. None of them, shed any light over new and significant achievements in urban rehabilitation, and more so on coastal cities, taking into account their particularities. There are few detected urban studies, since they are complex subjects to study for its dependence on the ocean. The "moment of glory" of most these cities it was far behind, as a result of the last economic policies and urban applied. In this type of HC a particular treatment is required, that restores its ability to respond to needs of their inhabitants without faking its essence in a sustainable frame work that puts an end to its decay, losing elements that made them singular, on the inadequate use and its spaces. The HC serves to identify and differentiate cities space as from the past, and especially, the collective memory of this society. In reality HC are historic-cultural realities which treasure the identity of a society and that makes them unique and exceptional. Besides being a functional diverse reality, where converge different variables such as functional analysis, urban sustainability and resilience. As it has been proven tourism, it can help recover architectural heritage and its revitalization, or it can generate negative effects on functions, social and environmental.

## Conclusion

- ) Analysing the contents of previous studies consulted, conclusion was reached that the identification of the conducting factors stating resilient proposals of HC's urban sustainability in coastal cities has not been carried out by any of them, therefore, it's considered necessary to contribute with new applicable lines of research for coastal cities with functional problems.
- ) The documented researches consulted about the study of rehabilitation of HC, are based exclusively in preserving heritage recovering new alternative touristic activities. None of them brings significant news to urban rehabilitation and more specifically coastal cities, taking into account their particularities.

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