

EMPIRICAL EVIDENCE OF THE IMPORTANCE OF CULTURAL SIGNIFICANCE TO THE CONSERVATION OF HISTORIC CENTERS

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Abstract

This paper shows that there is a significant empirical relationship between the cultural significance that residents perceive of a listed historic urban center and its conservation. It also shows that this relationship is mediated by factors of local development and socio-economic characteristics as some recent studies on the management of historic centers have put forward. The Historic Centre of Marechal Deodoro (Alagoas, Brazil) was used to demonstrate the application of the statistical model.

Key words: *Cultural significance, urban conservation, historic centers.*

Significance and urban conservation

The Burra Charter (ICOMOS, 1999) defines cultural significance as the "set of aesthetic, historic, scientific, social or spiritual values for past, present and future generations" and states that the objective of conserving a heritage asset is to maintain its significance, and that this is incorporated into the site itself, in its structure, in its use, in its surroundings, in its meanings, in its associations, etc. Based on the analysis of the Burra Charter's three stages of the process, Zancheti et al. (2009) suggest a redefinition of the concept of cultural significance as an identifiable set of values resulting from ongoing (past and present) judgment and from the social validation of the meanings of the objects. From this definition, it should be noted that significance includes the values of the past and present, those which are in dispute between the stakeholders, and those which no longer have meaning in the present, but are still in the collective memory, or recoded by instruments of memory recognized by society (Zancheti et al., 2009). The introduction of the social validation of the meanings of heritage assets aims at the values assigned to the asset being ratified by the actors involved. Thus, a start is made to this task no longer being concentrated on the specialist and who therefore begins to take on another fundamental role in the process, which is that of negotiating and communicating with the other stakeholders (Muños Viñas, 2005).

These groups of citizens, professionals from other fields, and representatives of special areas have been incorporated into the theme of conservation with their own criteria, opinions and values which have often differed from those of the specialists in heritage matters (De La Torre & Mason, 2002, p.3). It is important to emphasize that not all actors contribute at the same level to assessing these values. *Groups that wield power play* an important role when it comes to attributing values. However, in these cases, the meaning of the objects is determined through subjective mechanisms. Powerful groups can impose these mechanisms in the midst of less powerful people, but in these cases, the result is a tacit agreement between the groups.

An increase in the number of people that agree upon the conservation meanings of an object can result in an increase in the significance of a given object. (Muños Viñas, 2005, p.160).

The responsibility for judging whether a heritage asset has been well or badly conserved falls to those people whose lives are affected by the heritage and its meanings. According to Zancheti & Hidaka (2011), depending on the degree of involvement with the heritage asset, the actors can generate and be impacted by tangible and intangible effects, of different forms and magnitudes. Thus they are individuals with rights over what to do with the heritage, if they do not are marginalized from the political game by some specific social and economic factors. In the case of residents, especially those of long standing, it is they who are fundamental for the sustainable conservation of the historic center, and "they tend to maintain their properties, fight for better urban spaces, attract other urban uses, maintain ties with the community and local cultural traditions.

In assessing heritage conservation, the perceptions of physical and spatial elements are not the only elements to be considered. Perception forms a chain of ideas furnished by the senses, the result of which is part of the process of building the perception of the *place*, which implies the presence of the subject in the spot focused on. So based on Kolsdorf (1996), the *perception of cultural significance* can be defined as *the sensory properties perceived by the individual or group of individuals, starting with the interaction with the heritage asset from which it will be possible to assign values and meanings to them.*

Currently the main challenge for the conservation of historic centers is to reconcile the maintenance the significance of their heritage attributes while guaranteeing changes related to the development of the locations. Until recently, this approach was not evident (Worthing & Bond, 2008) and in search of integrating heritage preservation with urban planning" the approach of integrated conservation seeks to incorporate the social, economic, political, administrative and cultural dimensions.

The international experience of applying integrated conservation shows that urban conservation projects should include: economic and social development; the conservation of urban values, such as those relating to identity and diversity; strengthening policy and institutional structures, such as regulation and funding mechanisms; as well as management tools and intervention methods, such as, for example, the increased participation of a broad spectrum of society in the processes of urban regeneration and environmental management (Roberts, 2005; Pickard & Thyse, 2001).

The Historic Center of Marechal Deodoro (HCMD) and its significant assets

Marechal Deodoro, one of the oldest cities in northeastern Brazil, was founded in 1611 (Figure 1). The HCMD was included in the List of Heritage Sites of Brazil because of its characteristics of being a colonial city and because of the permanence of an architectural, urban and landscape setting representative of a significant historical period. The perimeter of the listed area was marked out in three discontinuous urban areas (Figures 2 and 3). It is a mid size town with an urban population of 45,590 people and a Human Development Index of 0,642 which is low in relation to the average of the country (0,727).



Figure 1: Picture "Alagoae ad Austrum", BARLEUS, 1647 Stamp 15.

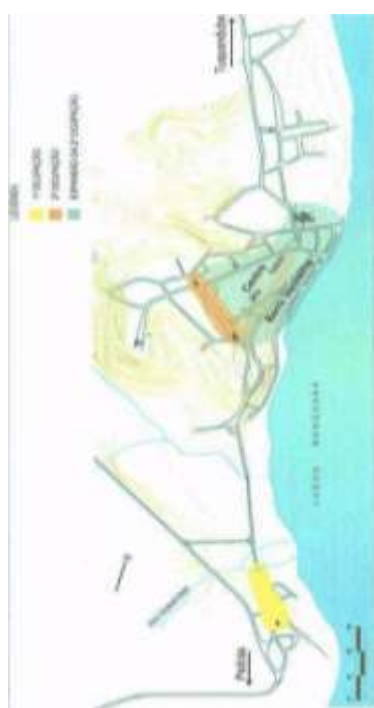


Table 1.

Table 3.

Table 4.

Table 5. Figure 2 – Map of the historic center of Marechal Deodoro.

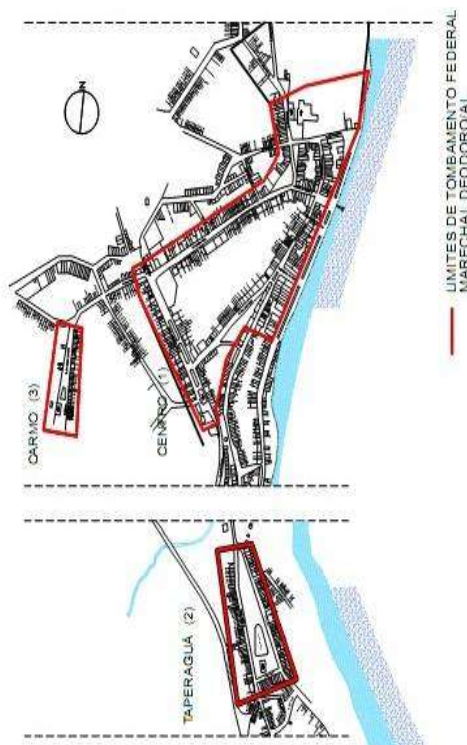


Table 2.

Table 6.

Table 7.

Table 8. Figure 3 - Limits of the historic center of Marechal Deodoro (in red).

Together with its irregular topography, the lush vegetation of the back-yards, the original colonial urban lay-out from which the towers of Churches leap up, civil buildings and the roofs of the houses make up a singular landscape with many significant assets (Figure 4).

The importance of the HCMD is reflected in the landscapes and views of the irregular topography, of the vegetation of the backyards, of the churches and their towers, of Lake Manguaba, of the roofs of the houses and townhouses that guard the original Portuguese urban layout.

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Figure 4 – Heritage significant assets of Marechal Deodoro.

Methodology

The methodology consists of estimating, among residents of the historic center, the perception of the *state of conservation* of the heritage assets of the HCMD and the perception of level of the *determinants* of heritage conservation. There follows a statistical account of the perception of the state of conservation (the dependent variable), the perception of the conditioning factors and the level of some socioeconomic variables (the independent variables). Data for the analysis were collected in a survey (2011) in the HCMD with a sample of 138 properties with a maximum permissible error of 7%.

A questionnaire identified the perception of the resident: a) of the state of conservation the historic center (SCHC), b) of the state of conservation of his/her property and of public space; c) the determinants of heritage conservation (Table 1). Socioeconomic information

about the respondent was also surveyed. With the exception of the latter, the answers were restricted to a scale: very good, good, fair, bad or very poor.

The assessment of the state of conservation of the property was carried out by constructing a *conservation factor* containing: the resident's building, the paving of the sidewalk and of the street and the backyard. The socioeconomic data were: income level of the resident, his/her age and level of education and the type of his/her property (Box 1).

Box 1 – Categories of analysis and variables for estimating the perception of the cultural significance and of the conditioning factors of conservation in the questionnaire

Categories	Variables
Perception of cultural significance	How well does the living in the Historic Center helps with family income?
	How well are the cultural activities in the CH associated with the identity of the place and its residents?
	How well does the Historic Centre being admired as a different and unique place helps in the life of its residents?
	How well is does knowing the history that the Historic Centre is important for residents?
Determinants of heritage conservation	
Urban Infrastructure	How well is the frequency of public transport?
	How well is the quality of water supply?
	How well is street lighting?
	How well is urban cleansing?
	How well is the quality of recreational areas?
Supply of Services	How well is the service of the schools in the historical center?
	How well is the commerce (market, pharmacies, bakeries) in the CH?
	How well is the garbage collection from homes?
	How well is the the service of the basic health posts ?
	How well is the public safety in the Historic Center?
Management of Conservation	How do the residents / traders take part in the conservation of the Historic Center?
	How well does the agency responsible for the conservation of the Historic Center, IPHAN, performs?
	How well does SECULT perform in the conservation of the CH?
	How well does the Town Hall perform in the conservation of the Historic Center?
	Lowering taxes owners who renovate their properties is seen as an incentive to conservation?
	Owners of businesses and property owners contributing their own resources for the conservation of the Historic Center is an incentive to heritage conservation?

Significance and conservation of the HCMD

A socioeconomic profile and the assessment of the status of conservation of the properties of the residents of the CH are shown in Box 2.

Box 2 – Socio-economic profile and conservation of the residential properties of the HCMD

Table 9. The female *Gender* predominates: 68.2%.

Table 10. Residents in an older *Age* group predominate: 12.5% are 18-25 years old; 27.2% are young adults 26-39 years old; 39% are mature adults between 40 and 59 years old; and 21.3% are older adults aged 60 and over.

Table 11. The *Educational level* shows a predominance of people who have had secondary education, 49.3%; and those who attended elementary school, 27.5%.

Table 12. On the *Income level* of the residents, there is a greater focus in the intermediate bands: 1-3 and 4-8 Minimum Salaries (MS)

Table 13. When dealing with the issues relating to *Length of Residence* it is verified that 69.9% have lived for more than twenty years in the historic center.

Table 14. As for the *Type of occupation* of the building, 79% of the properties are owned.

Table 15. The residents make a positive assessment of the *State of conservation of the properties*: Very Good - 8.7%; Good - 43.5%; Satisfactory - 34.8%; Bad 5.1% and Very bad - 8.0%.

Correlations between the dependent variable, the *State of conservation of the CH* and the independent variables were made to define the groupings of the latter in accordance with four factors:

- Factor 1 - State of conservation of heritage assets that are monuments;
- Factor 2 - State of preservation of the scenic views;
- Factor 3 - State of conservation of the urban layout and
- Factor 4 - State of conservation of the public spaces

The next stage was the development of four *Indicators* as groupings of variables of conservation determinants:

- Indicator 1 - Provision of Infrastructure;
- Indicator 2 - Provision of Supply of services;
- Indicator 3 - Quality level of the Management of conservation, and
- Indicator 4 - Perception of significance.

The final part of the statistical analysis was the application of an ordinal logistic regression¹¹ because the variables of the analysis are of the ordinal type, i.e., where the ordering is important. For most of them, a 1 to 5 scale was used representing concepts from "very poor" to "very good". For the index of the perception of the significance, the 1 to 5 scale represented concepts between "strongly" to "not at all". The units of the socio-economic variables remained unaltered.

The ordinal logistic regression was organized according to three models of regression between the *State of conservation of the CH (SCCH)*, the Factors, the Indicators, the Socioeconomic data and the State of property conservation and of public space components. In short:

- Model 1: SCCH x Factors.
- Model 2: SCCH x (Factors + Indicators);
- Model 3: SCCH x (Factors + Indicators + Socioeconomic data + State of property conservation and public space components).

The ordinal logistic regression was organized according to the model: State of conservation of the historic center (SCHC) x Factors of the state of conservation + Determinant Indexes + Socio-economic data + State of conservation of the property and public space components.

¹ Ordinal logistic regression (often just called 'ordinal regression') is used to predict an ordinal dependent variable given one or more independent variables. See: <https://statistics.laerd.com/spss-tutorials/ordinal-regression-using-spss-statistics.php> . (Accessed: 10 October 2015)

To evaluate the statistical quality of the three models the results were evaluated using the following statistical tests: the significance level (Sig) and the estimated coefficient (Estimate). First, being less than 0.10, implies that variable is statistically significant for the sample. The second indicates how the variable is significant when compared with the other variables of the sample.

The Models 1 and 2 are less explicative considering the *Pseudo R-square* with values of 22% and 32% respectively. In the Model 1 the factor Perception of cultural significance was not capable to explain well the SCCH even in association with the other factors. In Model 2 the same the factor Perception continued with the same behavior even in association with all other the Indicators.

The Model 3 showed it gives better explanations on using the *Pseudo R-square* indicator with the value of 67%. This Model indicates the following factors as the most explanatory of the State of conservation in their relative order of importance:

- 1) Factor 01 – State of conservation of the heritage assets that are *monuments*;
- 2) Indicator of the Supply of services, and
- 3) Indicator of the Perception of cultural significance (Table 1).

Table 1 - Results from the regression model

	Variables	Range of the answers	Estimate	Sig.
Dependent variable	The state of conservation of the Historic Center	1- Very poor	5.022	0.189
		2 – Bad	7.105	0.067
		3 - Satisfactory	12.346	0.003
		4 - Good	19.081	0
Factors of the state of conservation	Factor 1 – State of conservation of the heritage assets that are monuments		0.779	0.03
	Factor 2 – State of conservation of the panoramic views		0.289	0.389
	Factor 3 – State of conservation of the urban layout		-0.415	0.293
	Factor 4 – State of conservation of the public spaces		0.232	0.479
Indicators	Indicator 1 – Infrastructure		-0.118	0.955
	Indicator 2 – Supply of services		10.199	0
	Indicator 3 – Management of conservation		3.357	0.11
	Indicator 4 – Perception of the cultural significance		4.222	0.023
State of conservation of the property and components of the public space	State of conservation of the resident's property	1- Very poor	-1.422	0.604
		2 - Bad	-6.087	0.005
		3 - Satisfactory	-0.768	0.594
		4 - Good	-0.486	0.705
		5- Very good	0(a)	.
	State of conservation of the resident side walking property	1- Very poor	3.189	0.138
		2 – Bad	6.893	0.002
		3 -	3.822	0.04

	Variables	Range of the answers	Estimate	Sig.
		Satisfactory		
		4 - Good	4.111	0.03
		5- Very good	0(a)	.
	The state of conservation of the resident street.	1- Very poor	0.62	0.74
		2 – Bad	3.024	0.16
		3 - Satisfactory	1.17	0.547
		4 - Good	2.02	0.255
		5- Very good	0(a)	.
	The state of conservation of resident back-yard property.	1- Very poor	0.266	0.896
		2 – Bad	0.878	0.68
		3 - Satisfactory	0.296	0.834
		4 - Good	0.609	0.627
		5- Very good	0(a)	.
Socioeconomic data	Gender	Male	0.228	0.771
		Female	0(a)	.
	Age band (years)	18-25	0.741	0.638
		26-39	-0.957	0.381
		40-59	0.944	0.313
		60 and over	0(a)	.
	Level of schooling	Can read and write	-2.812	0.214
		Elementary	-0.286	0.887
		High school	-1.393	0.456
		Higher education	0.03	0.988
		Post-graduate	0(a)	.
	Family income (multiple of minimum salary – MS)	Less than 1	-3.44	0.131
		From 1-3	-4.365	0.022
		From 4-8	-4.574	0.017
		More than 8	0(a)	.
	Length of residence/ doing business in the historic Center (years)	From 01-10	-0.366	0.742
		From 11-20	-0.574	0.555
		From 21-30	2.038	0.072
		From 31-40	3.052	0.023
		More than 40	0(a)	.
	What is the type of occupation of this property?	Owned	2.272	0.016
		Rented	0(a)	.

Before analyzing the results of Model 3 it is necessary to highlight its difference in relation to the Models 1 and 2. In Model 3, the dependent variable is explained in relation to complete group of independent variables. That is, a group of variables contained in the sets State of conservation of the property and components of the public space and socioeconomic data, in association with the Factors and the Indicators, are able to explain well the SCHC. This is an expected outcome in relation to the definition of the concept of cultural significance since significance is socially and historically defined. It is meaningful to specifically

individuals and social groups, that is to people living in specific communities. The meanings making part of the cultural significance of an historic center only can be determined and understood taking into account the conditions of living and the social and economic characteristics of the people of the historic center.

Going back to the analysis of Table 3, Model 3 shows also that other variables have some explanation capacity as the *State of conservation of the respondent's property* and the *State of conservation of the sidewalks*. Of the socioeconomic conditions, the most explanatory were *Family Income*, *Length of Residence* and *Type of occupancy* of the property, when owned.

Factor 1 is seen to have the greatest explanatory power, followed by the indicators of *Supply of services* and *Perception of significance*. This suggests that the better the locals perceive the state of conservation of the monuments, especially churches in the case of Marechal Deodoro, the better they assess the state of conservation of the historic center.

This fact can be interpreted as a result of the strong spiritual and religious values in the urban formation of Marechal Deodoro. The urban layout, the civil buildings of colonial and imperial period and the churches were the elements that structured the space and the urban life of the town. The cultural significance of the historic center is certainly associated with the churches, festivals and processions. This relationship suggests that the perception of the cultural significance of the HCMD is associated with the perception of the significance of the monuments.

On the other hand, it is worth highlighting that the relations established in Model3 suggest that the cultural significance of the historic center is associated with the buildings of its residents and this shows very clearly in the importance that the *State of conservation of the property* takes on when explaining the state of conservation of the historic center. This chain of component elements of significance is reinforced by the importance of the *Length of residence* because the longer this time is, the greater will be its importance in the judgment of the residents of their state of conservation of the historic center. This statistical relationship reinforces the hypothesis that residents of "long-standing" of all socioeconomic level are more concerned with maintaining their property and looking to improve the historic centers in which they live (Zancheti & Hidaka, 2011).

The Model 3 indicate that the relationship between significance and conservation of the historic center is mediated by the supply of urban services, i.e., the better the availability of services to residents is, the better they will assess the state of conservation of the CH. Services related to transportation, trade, garbage collection, health services and public safety are also factors that influence the conservation status of heritage properties.

Conclusions

The findings of this research indicate that there is a relationship between the perceptions of the state of conservation of the historic center with the perceptions of cultural significance. However, this relationship is mediated by the quality of the supply of municipal services to its residents.

As to the perception of the general state of conservation of the historic center, this is strongly influenced by the perception of the state of conservation the heritage assets that are important for the resident's lives such as churches and their own residence properties. The perception of cultural significance is related to the imaginary of individuals who perceive these assets in a relationship with the perception of the state of conservation. In other words, the asset when it is in a good state of conservation can transmit better sensations and feelings to the residents, thus causing their meanings to be valued more. And these sensations and

feelings, i.e. the perception of significance, also influences the perception of the state of conservation of their own property and vice versa creating a circle of mutual causation.

The results achieved indicate the need of a review of the practice of revitalizing urban centers where investments, in general, are focused on the infrastructure, services and management which very often leads to an over-standardization, which is not always well received by locals and users of the historic center. Working with the perception of cultural significance can be a way to find what makes each place different, and may well contribute to an enhancement of local development and sustainable urban conservation.

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