

# **THE CONSERVATION OF ARCHITECTURAL HERITAGE AND HISTORIC CITIES IN BRAZIL, WITH PARTICULAR REFERENCE TO THE STATE OF MINAS GERAIS AND THE CITY OF MARIANA.**

Dr. Altino Barbosa Caldeira

Lecturer at PhD-GIS Program and Joint Professor at Department of  
Architecture and Urbanism at Catholic University of Minas Gerais, Brazil  
Architect of IPHAN

Commission VII, Working Group 2

**KEY WORDS:** architectural heritage, historic cities, mapping of Mariana

## **ABSTRACT**

This piece of work analyses the existing condition of Brazilian architectural heritage, focusing especially on the historic cities. The study, first of all, analyses the Brazilian historical background with the purpose of establishing a relationship between the circumstances and conditions in which these cities were created. Initially, the scenery of the landscape, the geographical aspects of nature, the climate and the people who converged to primitive Brazil, thus initiating the Brazilian diversity of culture and behaviour. Historical, political, social, and financial factors which were involved in the construction of these cities are also shown to facilitate the understanding of their character and meaning.

The aim of this study is to analyze aspects of the conservation of listed buildings in these special areas known as historic cities. In order to evaluate the extent of the problem, and because the Brazilian official institution which is responsible for caring for the heritage is supported by the government, specific situations occurring in different regions will be shown. The legislation related to the protection of the listed artefacts in which are included listed buildings and also urban areas is analyzed in its application and results. This study takes into account the most important concentration of historic cities in Brazil, which were constructed in the eighteenth century, in the state of Minas Gerais, and then, describes the in-depth research conducted in one of these special cities - Mariana - to provide data and arguments for the evaluation of the protection of historic cities in Brazil. Looking initially at the whole of the Brazilian architectural heritage values, and then focusing on a special area in order to study and evaluate rules and schemes concerning the protection and conservation of the historic cities, this research aims to find a methodology for the restoration and conservation of those cities as a whole

## A study for the preservation of Mariana, MG, Brazil

This presentation is a summary of my research work which was developed between 1994 and 1997 at the University of Sheffield, in England. This research involved, initially, a wide evaluation of the origins of the Brazilian Architectural Heritage and, in particular, the development of the historic cities. I will take in consideration just one of them, in which I put a great effort to organize an up-to-date map of the city in order to help the preservation of the historic buildings and the environment.

This city is named Mariana and it was the first place where gold was found in a stream, in the territory known today as the State of Minas Gerais. The first map below shows where the initial hamlet arose, in 1696, and the second one shows its development around a more defined area when the hamlet achieved to the status of village, in 1711. It was named Vila do Ribeirão do Carmo, being the headquarters of the administrative power in the newly created Capitania das Minas ( Fig . 1 and 2 ) .

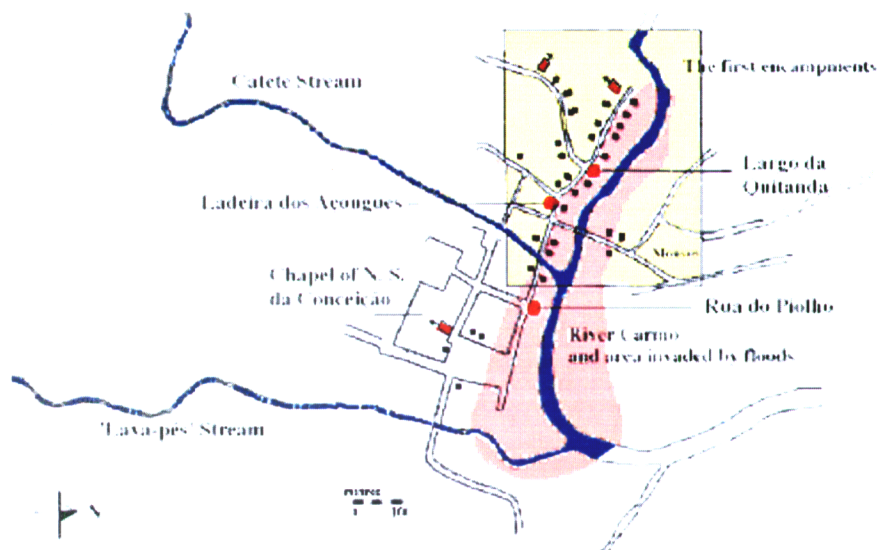


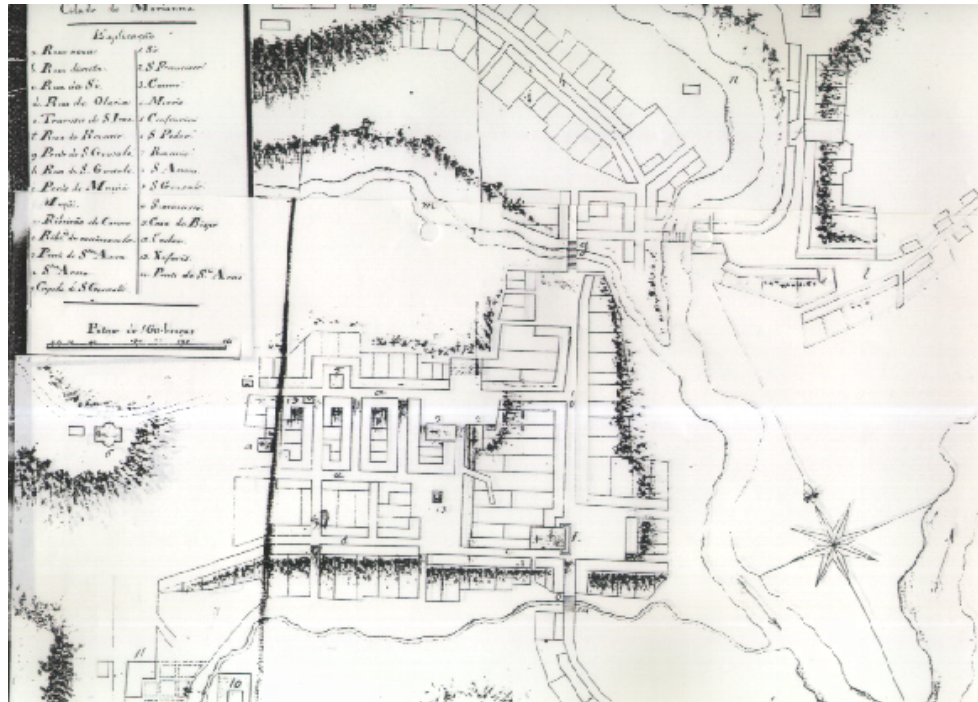
Fig. 1 - the first area to be occupied at the banks of River Carmo



Fig. 2 - "Vila do Ribeirão do Carmo" from 1711 to 1745

In 1745, a new city was planned in order to be the headquarters of the first bishopric of the colonial area. It seems that it was built according to a plan made by a military engineer named Alpoim, as shown in the map below (Fig. 3).

This led to an urban site of singular appearance in which improvements such as streets paved with cobbles, squares with public fountains, stone made churches, a new Cathedral and singular public buildings transformed that village in an special city full of beauty (Fig. 4).



**Fig. 3 - drawing believed to be the original plan by Brigadier Alpoim**

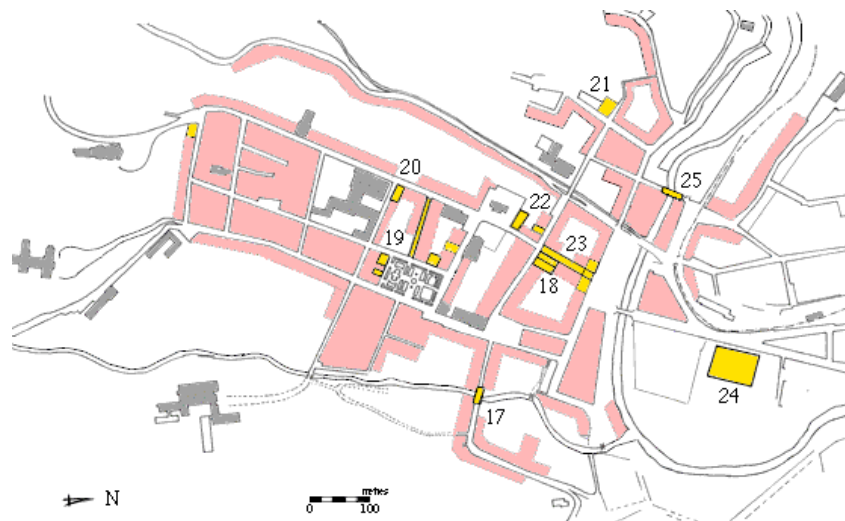


**Fig. 4 - The city of Mariana in 1745**

With the decline of gold exploitation, the physical appearance of the city was preserved and during the nineteenth century only small changes occurred. In the twentieth century some new interventions were made but the city was listed as a whole to be preserved. It was in the sixties with the arrival of some iron exploiting companies, that the most inappropriate changes took place and significant alterations in the environment and in the urban

area started to concern the official institution of Brazil for preservation - IPHAN.

This led to a need for a new methodology with a different approach because the population grew and threatened the preservation scheme, with changes in the old buildings and the mobilization for new homes. New people living in the historic city without knowing its cultural value, means a need for a better quality of the environment protection and in the preservation of the listed buildings (Fig. 5).



**Fig. 5 - The historic Mariana as was listed in 1938 (in red)**

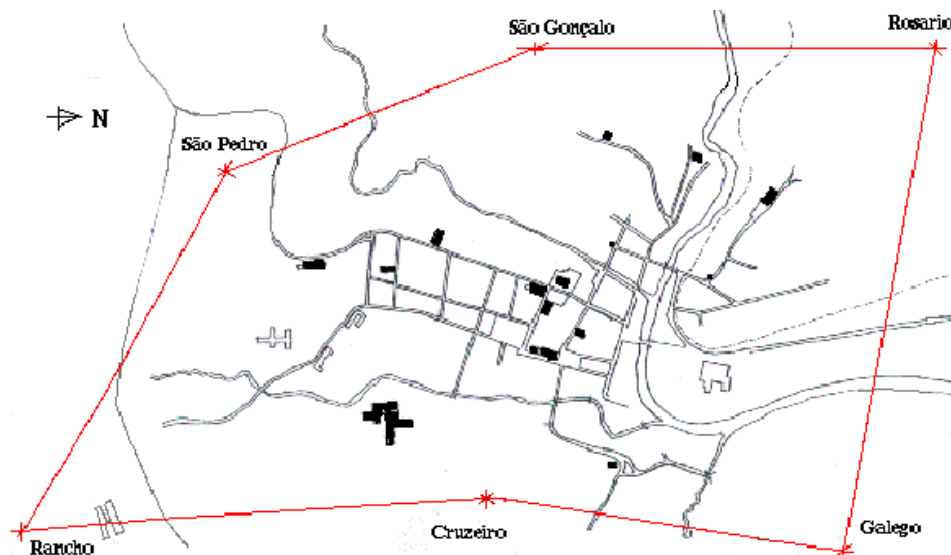
In these circumstances, the individual listed building were studied in relation to their surroundings and environment, in order to show how the preservation scheme depends on the frame in which they are set, as part of an integrated system.

A map of their location was developed (Fig. 6) and some of them were studied in a deep historical retrospective look, with information such as building type and materials, etc. From these analyses a new form of boundaries was proposed for the historic city (Fig.7).



**Fig.6 - Location of listed building in the historic city**

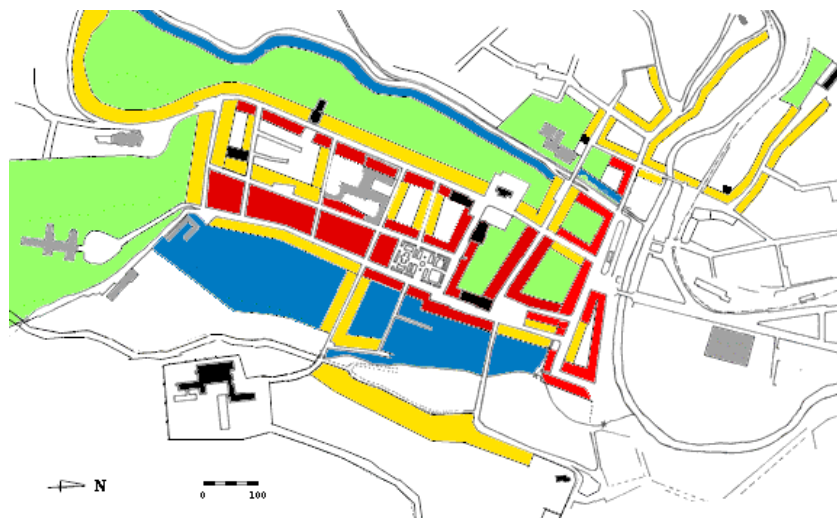




**Fig. 7 \_ The new boundaries proposed to the historic city of Mariana**

However, in the historic cities and surroundings, procedures for sustaining developments in legislation, depend on the agreement between IPHAN and local authorities. These organizations have to take decisions about details concerning the use of

land in a proper way. The aim is to improve the quality of protection, including the remaining green areas. A preliminary study of criteria for the analysis of applications in Mariana is being developed, as shown in this map below (Fig. 8).



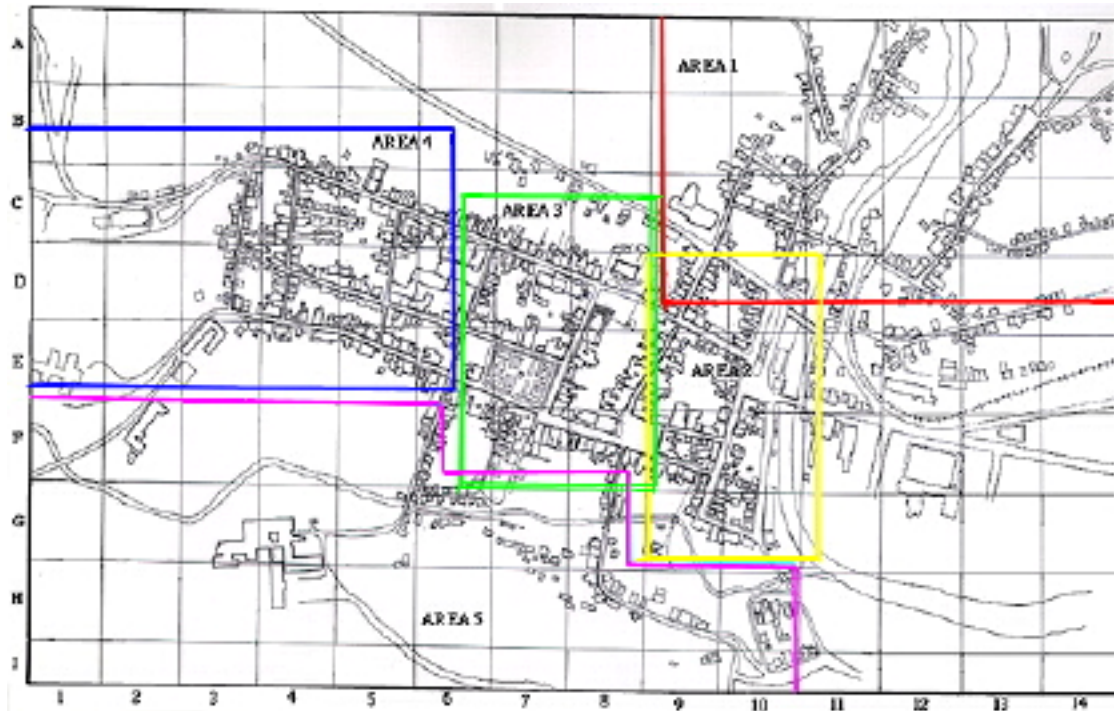
**Fig. 8 - A preliminary study of criteria for the analysis of applications in Mariana**

These rules are being implemented in general terms, but were not been officially adopted by IPHAN, from city to city. The dissemination of these rules throughout the community, taking into account the particularities of each historical areas, will provide support for acts of preservation in all of the historical cities in Brazil. An analysis of data obtained in a survey work shows that there is a lack of geographical

and physical information about the conservation area. Maps were not made with accuracy and comparisons between the existing ones, show a lack of a comprehensive view of growth and changes. Information was supplemented by data taken from archives (like aerial photographs) which resulted in the updating of the city map as shown in the following paragraphs.

The map of the city was divided into sections (Fig. 9) so that an in-depth analysis on each section could be carried out. It was designed following the rectangular patterns in order to indicate the historical process of growth. AREA 1 is related to the area of the initial settlement. AREA 2 refers to the occupation

which was centralized in the area of the Cathedral. AREA 3 is part of the Alpoim's plan of 1745. AREA 4 is the subsequent occupation to the South and finally AREA 5 covers the part of the historic city which are now being extensively occupied.



**Fig. 9 - map of the city divided into five selected areas**

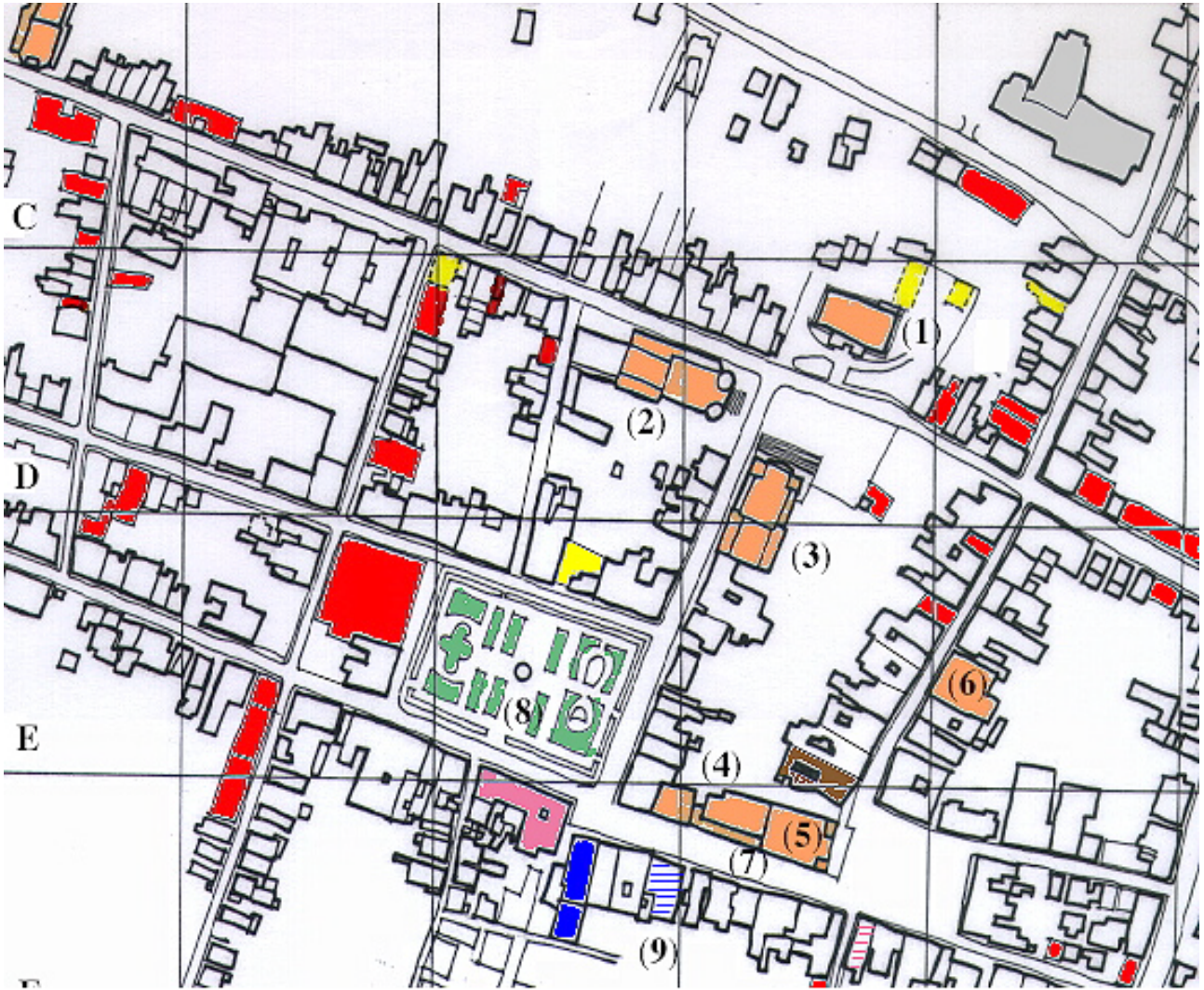
In all these areas the number of buildings were examined in different dates in order to reveal the growth of the city and the changes which occurred. Many of these changes were irregular as it happened without following any criteria in terms of urban planning, even so the city had been considered a conservation area.

It was also analyzed the number of applications required from the owners, including references related to restorations or other kind of alteration. This number represents a comparison between the conservation process as recorded by IPHAN and the actual development throughout the city. Attempts to have a permanent dialogue between IPHAN, the community and any other institution who intend

to build something new, re-build or restore buildings in this particular area, must be reinforced by cooperation and exchange of information in order to increase awareness of conservation and protection of the heritage

The survey of all these areas is not complete and there is lack of technical support and information. IPHAN needs to cope more urgently with the problems which are partly of their own making and their responsibility. This could be done by the application of information technology in the organization of the old archives and the subsequent inclusion of available measurements to draw a definitive map of the city





**Fig. 10 -the transformation which occurred in the central area**

The character of the historic city depends on the criteria used for development in these areas and its surroundings whose existing spaces should be preserved or properly managed, to maintain the authenticity of the area. The next initiative will be the updating of the city map using GIS techniques, digital equipment, GPS and software of spatial analyses in order to obtain detailed information which could facilitate

assessment and analysis about building and environment conditions and how to act for their preservation. This mapping will permit new forms of planning methodology and to a better definition of criteria for protection of the conservation area. From Mariana this initiative could be extended to other historic cities in the state of Minas Gerais and Brazil.

\* \* \*

## Bibliography

Autran, J., I. Guerin-Cazorla, T. Prevost, P. Saunier, 1991, 'A computer system for rehabilitation of buildings in their urban setting', Environment and Planning B: Planning and Design, London

Butt, T. K., 1989, 'How CADD helped restorations', AIA Journal, Vol.78, Nº 11

Day, A., 1994, 'From map to model: the development of an urban information system', Design Studies, Vol. 15, Nº 3

Fonseca, C., 1995, Mariana: gênese e transformação de uma paisagem cultural, Tese de mestrado, Belo Horizonte, IGC-UFG

Hall, A. C., 1993, 'The use of computer visualisation in planning control', Town & Planning Review, Vol. 64, Nº 2

Minors, C. 1995, Listed Buildings and conservation areas, London, FT Law & Tax

Parent, M., 1968, Protection and mise en valeur du patrimoine culturel brésilien dans le cadre du développement touristique et économique, Paris, UNESCO

Suddards, R. W., 1988, Listed buildings: the law and practice of historic buildings, ancient monuments and conservation areas, London, Sweet and Maxwell

Vasconcellos, Diogo, 1974, História Antiga das Minas Gerais, Belo Horizonte, Itatiaia