







### Report for IFLA/PAC Attention Julia Brungs August 2015

Activities of the Regional Preservation Center for Brazil By Jayme Spinelli Junior Preservation Coordinator of the National Library

#### 1 - Trainings:

The Preservation Center of the National Library of Brazil has decided, from this year onwards, to offer the Informative Preservation Course for Bibliographical and Documentary Collections biannually. It is open to the public and also to staff of the National Library. Consequently the next course will be in 2016.

The Preservation Center provides internships/trainings for Brazilian professionals as well as those coming from the National Libraries of Paraguay, Bolivia and Uruguay. Besides trainings, the Preservation Center furnishes technical assistance to public libraries, universities, cultural foundations and other similar institutions in Brazil and throughout Latin America.

#### 2 - Publications:

This year the IFLA magazine – International Preservation News/IPN was not received. The last number received was no 61 December 2013.

The publication of "Risk Management Plan - Safeguarding and Emergency for the Brazilian National Library" in Portuguese, English and Spanish is still available for consultation or downloading.

Access: www.bn.br then click on "PRESERVAÇÃO" (Preservation).

#### 3 - Events and News:

The Preservation Center has started the vacuum encapsulation project for the microfilmed journals of the National Library. This encapsulation project was supported by the National Library of Portugal through its President Dr. Maria Inês Cordeiro and their technical conservation team. The Preservation Coordinator attended the XXV General Assembly of ABINIA/Association of National Libraries of Ibero-America at the National Library of Uruguay in Montevideo.

This meeting was attended by representatives of the National Libraries of Mexico, El Salvador, Panama, Costa Rica, Honduras, Dominican Republic, Colombia, Cuba, Venezuela, Chile, Ecuador, Bolivia, Paraguay, Brazil, Argentina and Spain. The central theme of the meeting was "Present and Future, Reflection for Action".





The Conservation Office, in conjunction with the Laboratory of Restoration and the Federal University of Paraná, in the person of Dr. Ricardo Godoi and under his guidance, is performing scientific research on the pollution index that occurs within the collections and headquarters building of the National Library. As we announced in the 2014 report, we present the preliminary results of this research.











## INDOOR AIR QUALITY OF THE BRAZILIAN NATIONAL LIBRARY IN RIO DE JANEIRO, BRAZIL

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#### Introduction

Installed in 1910 at the central area of Rio de Janeiro city, the Brazilian National Library (BNL) has under its guard more than 9 million items comprising books, folders, manuscripts, engravings and maps. Included in the rare collection is the first edition of the Luís de Camões' epic work *Os Lusiadas*, published in 1584, and the Mazarin Bible of 1462, believed to be the second printed version of the Scripture and consequently considered to be among the most valuable books in the world. Preventive conservation is therefore the principal aim of this research.





Figures 1 and 2: entrance hall and bookshelves inside the BNL; Figure 3: first edition of the Luís de Camões' epic work *Os Lusiadas*, published in 1584; Figure 4: the Mazarin Bible of 1462, also known as the Gutenberg Bible.

#### Methodology

Seven different indoor and one outdoor sampling points were chosen considering collection's importance and microclimatic conditions which may cause deterioration of the materials.

The gaseous pollutants  $NO_{x'}$   $SO_{2r}$   $O_{3r}$  aldehydes, formaldehydes and BTEX were evaluated by means of passive diffusive sampling and their concentrations were determined by IC, UV-Vis Spectrophotometry and GC–MS. Multiple-wavelength AEs were employed for determination of Black Carbon in real time.

#### Results

The first analysis, referring to the period from 5 to 12 February 2014, provides preliminary results of BTEX and ozone. Indoor and outdoor average concentrations for benzene, toluene, ethylbenzene,  $m_p$ -xylene and o-xylene are respectively: 2,5 and 3,4  $\mu$ g/m³; 22,1 and 19,5  $\mu$ g/m³; 3,5 and 1,0  $\mu$ g/m³; 0,99 and 0,55  $\mu$ g/m³. For ozone, the indoor and outdoor average concentrations are 0.92 and 5.97  $\mu$ g/m³, respectively.



Figure 5: passive diffusive samplers

Results are interpreted separately and as a whole with the specific aim of identifying compounds that could contribute to the chemical reactions taking place on the surfaces of artifacts and which could potentially cause irreversible damage to the artworks. The concentrations found in this study were lower than those found in the library of Jawaharlal Nehru University, New Delhi (Kumar et. al., 2013) and are similar to those found in The Oscar Niemeyer Museum, Curitiba (Godoi et. al., 2012).

Furthermore, toluene, ethylbenzene, *m,p*-xylene and *o*-xylene indoor/outdoor ratios showed that the pollution sources may come from indoors. Some materials can act as sources of some organic compounds, such as BTEX.

The ozone indoor concentration is much lower than outdoor, which can be due to high rates of deposition of  $O_3$  or due to reactions with other pollutants in the indoor atmosphere of the library.

#### References

Godoi, R. H. M.; Carneiro, B. H. B.; Paralovo, S. L.; Campos, V. P.; Tavares T. M.; Evangelista, H.; Van Grieken, R.; Godoi, A. F. L. Indoor air quality of a museum in a subtropical climate: The Oscar Niemeyer museum in Curitiba, Brazil. Science of the Total Environment 452–453 (2013) 314–320.

Kumar, A.; Singh, B. P; Punia, M.; Singh, D.; Kumar, K.; Jain, V. K. Assessment of indoor air concentrations of VOCs and their associated health risks in the library of Jawaharla Nehru University, New Delhi. Environ Sci Pollut Res (2014) 21:2240–2248.

#### Acknowledgments:



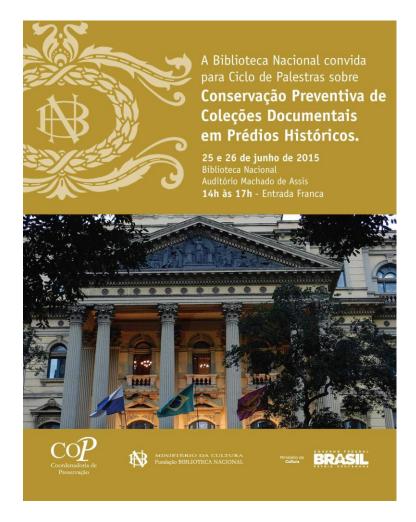








On the 25th and 26th of the June 2015 the National Library Foundation through its Preservation Center will present the "Cycle of Lectures on Preventive Conservation of Documentary Collections in Historic Buildings" in its auditorium with free admission to the public and to all employees National Library.



The Preservation Center addresses the guidelines of Preventive Conservation of the National Library Foundation, serving all areas of the Library and provides all technical services necessary to safeguard the archives. It operates on a national level giving lectures and technical consultancy to libraries, public institutions and universities.

The Conservation and Book-Binding Center and the Restoration Laboratory, integral components of Preservation Center, carry out activities of conservation and organization of photographic collections; restoration of rare books, manuscripts, musical scores, maps and engravings; as well as developing technical treatments for conservation, book-binding and lay-out arrangements of modern and rare collections. The trained teams of the Center work together when carrying out the necessary cleaning services of the modern and rare collections in loco.

The technical areas participate actively in setting up exhibitions, both in the Library itself, as well as in institutions and wherever works from the National Library are exhibited - including abroad.

Another activity for the Preservation Center is supervised technical training for interns, made possible through various agreements and such training is also offered to interns from other countries.

In terms of the building itself that houses the library archives, the Preservation Center together with the Fire Department encourage and participate in activities aimed to safeguard the heritage of the National Library Foundation.

"Cycle of Lectures on Preventive Conservation of Documentary Collections in Historic Buildings ".

25 and June 26, 2015 in the Auditorium of the National Library.

(entrance through the garden on Rua Mexico s/nº)

# Free entrance. Open to the public and all employees of the National Library.

#### **PROGRAM:**

#### <u>June 25</u>

#### 14:00

**Opening** of the **Cycle of Lectures** by Renato Lessa, the President of the National Library Foundation.

#### 14:15 to 15:15

**Lecture:** The historical building of the National Library of Brazil.

Given by: Luiz Antônio Lopes de Souza, MSc in Architecture from Pro Arq. - Federal University of Rio de Janeiro/UFRJ. Luiz Antônio is Head of the Architecture Center of the National Library Foundation.

#### 15:20 to 16:20

**Lecture:** The locale of the areas safekeeping the collections of the National Library.

Given by: Antonio Carlos dos Santos Oliveira, MSc in Architecture, a Climatologist, Bachelor of Museology and Technician in Meteorology. As a Climatologist he provides technical advice to the National Library.

#### 16:25 to 17:25

**<u>Lecture:</u>** Preventive Conservation: Planned and Executed for the

Documentary Collection of the National Archives.

Given by: Lucia Peralta, Preservation Coordinator of the National Archives Collection.

#### Debate and Closure.

#### June 26

#### 14:00 to 15:00

**Lecture:** Preventive Conservation: The indoor air quality of the

National Library.

Given by Prof. Dr. Ricardo H.M. Godoi - Department of Environmental Engineering, Federal University of Parana/UFPR. Lab.Air http://people.ufpr.br/~rhmgodoi/Office: (+5541) 3336-3482 Mobile: (+5541) 8856-9504 Skype: rhmgodoi

This research is the result of a partnership between FBN with UFPR, signed in 2014.

#### 15:10 to 16:10

**Lecture:** Challenges of risk mitigation in documentary collections in historic buildings.

Given by José Luiz Pedersoli Junior.

Chemist from the Federal University of Minas Gerais/UFMG, MSc Chemistry from the University of Helsinki/Finland. He worked as Conservation Scientist at the Netherlands Institute for Cultural Heritage in Amsterdam and the International Centre for the Study of the Preservation and Restoration of Cultural Heritage/ICCROM in Rome, where he is still a consultant to this day. Also he is a co-author of "The Risk Management Plan - Safeguarding and Emergency", a publication of the National Library.

#### 16:15 to 17:15 h

**Lecture:** Climate Control Strategies for the Rui Barbosa Library.

Given by Claudia S. Rodrigues de Carvalho, Architect from the Federal University of Rio de Janeiro/UFRJ, Master Faculty of Architecture and Urbanism/FAU/UFRJ, PhD from Dep. of History of Architecture and Urbanism at the University of São Paulo/USP. She is the Coordinator of the Architectural Preservation Center of the Memorial Foundation of Casa de Rui Barbosa/FCRB.

#### Debate and Closure.

Take this opportunity to announce our next event: The 18th Collections Preservation Course. Which will be 12 to 16 September 2016, it will be in the auditorium (lectures) and in the conservation and restoration laboratories (case studies) of the National Library. Will focus on "Scientific principles and decision-making in conservation of documentary collections", Information < <a href="mailto:preserve@bn.qov.br">preserve@bn.qov.br</a>>.



## 4 - Cooperation with other Institutions in the field of Cultural Heritage Preservation:

The National Library provides technical assistance on preservation and conservation to the National Archives of Brazil through meetings with the Technical Board for Preservation of Documents of the National Archives Council/CONARO.

#### 5 - Blue Shield Brazilian Committee:



The Brazilian committee of the Blue Shield was set up at the National Archives of Rio de Janeiro – http://www.ecudoazul.arquivonacional.gov.br – on November 9<sup>th</sup> 2006. It should be noted that the Committee was never subordinate to the Regional Center of IFLA-PAC, Brazil.

Regional Committees of the Blue Shield already exist at different institutions around Brazil:

The Bahia Committee of the Blue Shield is in the Central Library of the Federal University of Bahia – UFBA – Bahia.

#### <www.bibliotecacentral.ufba.br>

The São Paulo Committee of the Blue Shield is in the São Paulo State Art Gallery.

#### <www.escudoazul-sp.net>

The Minas Gerais Committee of the Blue Shield is set up in the Conservation and Restoration Center, Fine Arts School, Federal University of Minas Gerais.

#### <www.eba.ufmg.br/cecor>

#### <comitemineirodoescudoazul@gmail.com>

Finally, please note that new Committees in the states of Santa Catarina, Rio de Janeiro and in Brasília/DF are in the process of being established. It is the responsibility of the Regional Committees to recruit local emergency institutions and volunteer specialists to face any threat of disaster as well as divulge the main guidelines for the prevention of disasters in local cultural institutions.

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