

## Going green or not: realities of the Indian metropolis Libraries

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### Abstract:

*India is fighting severe problems, as for e.g. pollution explosion, dwindling resources, illiteracy, poverty, unemployment, threats of terrorism, among others. In this perspective, little emphasis is given on emerging issues like hygienic and environmental awareness.*

*Very recently, Indian libraries started to have provisions for natural lights as much as possible, energy saving bulbs in the reading rooms and other places within library premises, provision of natural air, emphasis on cleanliness, hygienic toilets, adequate provision of waste bins at appropriate places, proper disposal policies for weeded library materials/equipments, etc. This paper will present the report of a survey of some important libraries in the four metropolises (Kolkata, Mumbai, Delhi and Chennai) of India.*

**Keywords:** University Libraries, India, Green Libraries, Metropolises, Calcutta University Library System, Madras University Library System, Mumbai University Library System, Delhi University Library System

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### 1 OBJECTIVE:

Metropolis is defined as the capital or chief city of a country or region. It is a very large city with high population density. India is a subcontinent with a teeming population of billions of people. It has been broken into four regions: East, West, North and South. In this study, four metropolises are representing these four regions: Kolkata (East), Mumbai (West), Chennai (South) and Delhi (North). This paper studies the four prestigious university libraries from these four metropolises of India to find out the green thinking embedded in their tradition and also the green thoughts and activities<sup>i</sup> they are indulging in.

## **2 METHODOLOGY<sup>1</sup>:**

Among the many cities that the vast area of India contains, the four most prominent cities are Delhi, Mumbai, Chennai and Kolkata. These four cities also boasts the most ancient and important universities of India having 150+ years of existence on their back. This paper deals with the green concepts and activities that are carried out by them.

The survey was mainly done by interviews with university librarians. A structured questionnaire is formed, but the emphasis is on the free flow of conversation within a structured framework. Some of the parameters used are 'Use of Glass as a Facilitator of Natural Lights', 'Position, Size and Placement of the Windows', 'Use of Eco-friendly Furniture', 'Openings at the Eastern and Southern Sides' (in India, South and East side openings usher natural breeze which is healthy as well as facilitates conservation of electricity by lessening the use of fans), 'Number and Location of Waste-Bins for the Library Users', 'Use of Energy-saving Bulbs and other Equipments', 'Disposal Policies for the Audio Cassettes/old computers and other Materials/equipments that are no longer in use', 'Overall Cleanliness', 'Condition of Toilets' (the hygienic provisions have been met or not), 'Amount of Empty Space provided in relation to the Seating Arrangements', 'Provision of Proper Fire Fighting Arrangements and Training', 'Provision of Proper Fresheners', 'Provision of Proper Awareness Training', 'Use of Indigenous Materials for Walling and/or Roofing', 'Amount of Green Plants (in pots or otherwise) in and around the Library Premises', 'Treatment of Soil before Foundation', 'Use of Indigenous Materials (called 'Khas Khas', a kind of curtain) to Prevent the Excessive Heats Coming through the Windows', among others.

The interviewees holding the 'numero uno' position in their respective libraries, their views and opinions have also been given due importance as well as the pertinent facts seen and/or pointed out by them.

On the one hand, data has been collected first hand through interviews. The respective university websites are also been used as an authentic source of information. Secondary sources like writings on the relevant issues have also been explored. To supplement textual data, visual documentation has been taken place where necessary.

## **3 DISCUSSIONS:**

### **3.1 University Education: a New Era in Higher Education in India:**

In the year 1857, university education started in India with the foundation of three universities, namely Calcutta University, Bombay University and Madras University, to cater to the eastern, western and southern regions of India. The University libraries follow suit soon thereafter. In 1922, Delhi University Library started its beginning with 1380 gift books. As with all great ventures, many great persons were connected with the initial phase of these libraries. The table below shows a few essential features of these four libraries:

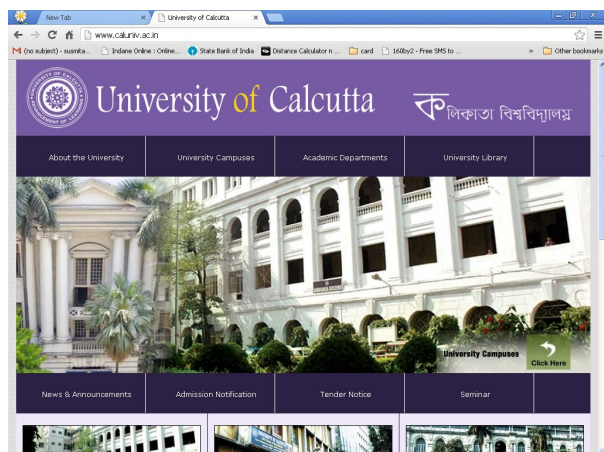
| Metropolis | Previous Name | State       | Library                                 | Name of the main Library  | University Begins In | Begins In | University Librarian /IC  | Person alia  |
|------------|---------------|-------------|---|---------------------------|----------------------|-----------|---------------------------|--|
| Kolkata    | Calcutta      | West Bengal | University of Calcutta Library          | Central Library           | 1857                 | 1872      | Dr. Soumitra Sarkar       | Joykris hna Mukherjee, Esan Chandra Ghose                                |
| Mumbai     | Bombay        | Maharashtra | The University of Mumbai Library System | Jawharlal Nehru Library   | 1857                 | 1880      | Dr. Pratibha Gokhale, I/C | Premch and Roych and   |
| Chennai    | Madras        | Tamilnadu   | The University of Madras Library System | Madras University Library | 1857                 | 1907      | Dr. K. Kaliyaperumal, I/C |  |
| Delhi      | Delhi         | Delhi       | Delhi University Library System         | Central Library           | 1922                 | 1922      | Dr. S C Jindal            | Mauric e Gwyer, I H Qureshi , S R Rangan athan, T G P Spear, D S Kothari |

**Table: Four Indian University Libraries at a Glance**

### **3.2 Four Famous Libraries at a Glance:**

The paper will briefly outline the collection profile of each of them. It will then depict in words and images the green measures satisfied in these great university libraries of India.

### 3.2.1 Calcutta University Library System<sup>ii</sup>:



**Image 1: Calcutta University<sup>ii</sup>**

The Calcutta University Library system is diversely located in seven campuses. With the Central Library doing its pivotal role, there are also two campus libraries, thirty-nine departmental libraries and two libraries of the Advanced Centres.

#### 3.2.1.1 Collection:

The University library besides a collection of more than ten lakh books, also possess more than 2 lakh volumes of bound Journals, MPhil and PhD dissertations, conferences proceedings, reports, maps, standards, patents, newspapers, Tibetan/ Sanskrit/Bengali manuscripts, microfilms, CD-ROMs, e-Resources (eBooks, e-Journals, e-Databases), special collections, a Braille Library and a digitised collection of rare books.

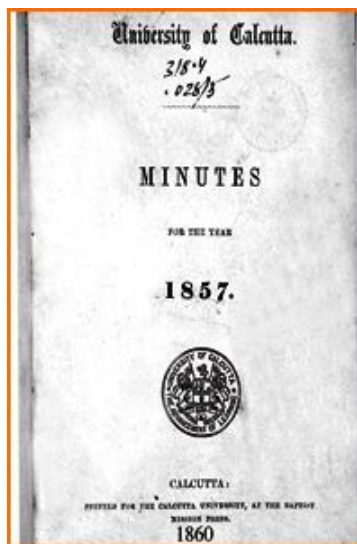
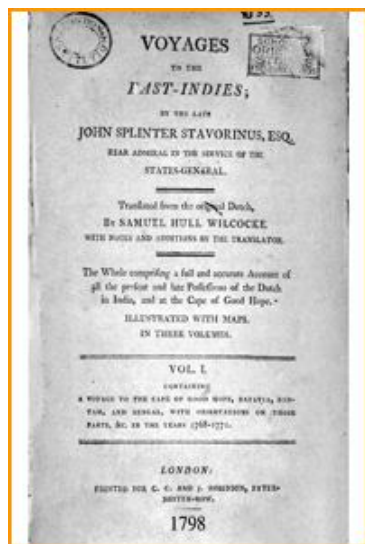


Image2: Digitised Rare Book (1798) Image3: Digitised Rare Book (1860)

### 3.2.1.2 Green Measures in the Calcutta University Library:



Image 4: Calcutta University Library Website

Use of open space and pot plants is soothing as well as eco-friendly (see below):



Image 5: CULS: Reading Room (OPAC)

The great height, vast open areas, thick walls, windows all through the eastern wall are some green gestures that are in built in this heritage structure as well as nurtured even today by the present library leadership.



Image 6: CULS: Reading cum Display Room

Wood, which is bio-degradable and environment-friendly, is mostly used as material for library furniture (see below):



Image 7: CULS: Periodicals Reading Room

Image 8: CULS: Reading Room

### 3.2.2 Mumbai University Library<sup>iii</sup>

Mumbai University Library has also started its journey in 1857.

#### 3.2.2.1 Collection:

The University library besides a collection of 6, 99, 321 books; 20, 000 Theses & Dissertation; 12, 000 Periodicals; 15, 000 manuscripts; 2, 000 Microforms; 7500 Sanskrit manuscripts; 1376 Persian, Urdu and Arabic manuscript; 342 letters of lokhitawadi; Rare books on Mumbai; individual collections of Ambedkar, Priolkar, Patkar and Kane. It also possesses CD-ROMs and e-Resources collection.

#### 3.2.2.2 Green Measures in the Mumbai University Library:



Image 9: MULS: The Green Outside



The University Library and Rajabai Clock Tower above it are located in a Heritage Building with a height of 280 feet. The architecture itself makes it more environment-friendly as it boasts than the recent low-height, less-width, non-thick walls.

### **3.2.2.3 Open Space with Natural and/or Subdued Lighting:**



**Image 10: MULS: Subdued Lighting**

Reading facilities are rendered beyond University to outsiders like writers, journalists' and visitors. The library provides vast area of open space for its readers. The heavy wooden furniture mostly with antique values mingles well with the environment. Natural light comes through the wide windows that run through the wall. The electric lights are also used subtly to facilitate reading but not to cause glares or any other discomforts.

Use of wood as stack-material and/or providing ample space for the users is evidenced in these pictures:



**Image 11: Mumbai Univ. Stack Area**



**Image 12: Ample Space in Mumbai Univ. Periodicals Reading Area**

### 3.2.3 MADRAS UNIVERSITY LIBRARY<sup>iv</sup>

Madras University Library was established in 1907 in the Connemara Public Library.

#### 3.2.3.1 Library Collections at a Glance:

|               |        |
|---------------|--------|
| 1. Books      | 526625 |
| 2. Theses     | 10030  |
| 3. Journals   | 260    |
| 4. CD Rom     | 100    |
| 5. E-Database | 10     |
| 6. E-Journals | 4500+  |

Virtual Classroom with University Video Lecture Course (UVLC)

#### 3.2.3.2 Users:

MUL caters to its Faculty, Research Associate, Research Scholars and the students of M. Phil., Post Graduate, and Certificate Course. It also gives 'Reference only' service to the faculty and students of its Affiliated Colleges. It also provides 'Institutional Membership' and 'Industrial Membership' against a heavier fee structure than its own teachers and students.

#### 3.2.3.3 Green Measures in the Madras University Library:

The existing library building is built in a symmetrical mixture of Indian and British architectural style. It was opened on 3rd September 1936. Granite arches and domes with octagonal base make this Building a pleasure to the eye. Islamic Architecture in India has also come in the inclusion of kiosks.



Image 13: Madras University Library



As is prevalent in those days, ample scope for letting in natural air has been provided. Wide corridor makes a buffer zone for the entry of hot and humid air. Windows are large and too many accelerating both fresh air and sunlight. Enormous amount of open space is provided. Sunshades are there outside the windows that prevent the direct sunlight but allow adequate natural lights (see the picture of the Reading Hall below):



Image 14: Madras ULS-Reading Room



Image 15: Madras ULS- Periodicals Room

### Wood, Wood, Everywhere:

Wood is mostly used as is seen in the picture above and also in the pictures below:



Image 16: Madras ULS- Wood Carving - Reference Shelf

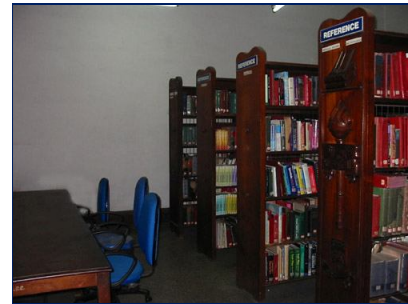


Image 17: Madras ULS- Periodicals Reading Room with Wooden Stacks and Table

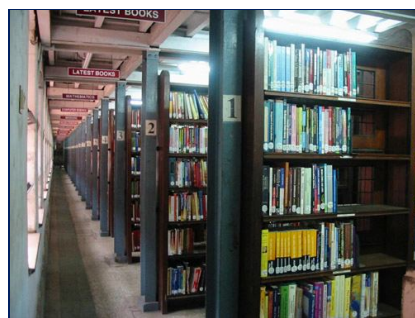


Image 18 and 19: Madras ULS- Stack Area (wood + open space)

### 3.2.4 Delhi University Library System<sup>v</sup>



Image 20: DLUS: Central Library



Image 21: DLUS: Taken by Bipin Sodhi

Started in 1922 with 1380 gifted books, Delhi University Library System now can boast about having 34 libraries under its vast wings.

#### 3.2.4.1 Library Collections at a Glance:

It has a Braille library with 300 Audio Books Cassettes. Other less known areas includes Chinese, Japanese and Korean books for the East Asian Studies.

#### 3.2.4.2 Library Collections<sup>vi</sup> at a Glance:

|                        |                                       |
|------------------------|---------------------------------------|
| 1. Books               | 1400000 +                             |
| 2. Theses              | 13000                                 |
| 3. Journals            | 2000                                  |
| 4.MPhil<br>Disseration | 13000                                 |
| 5. Manuscripts         | 700 (Persian, Sanskrit, Pushto, Urdu) |
| 6. E-Journals          | 000                                   |
| 7. E-Database          | 84                                    |

It also has a valuable collection of rare books including 'Royal Society Proceedings' (1688 onwards), Greenwich Observations, Volumes of Catalogues of the British Museum and Library of Congress.

#### 3.2.4.3 Users:

Users from a group of 34 libraries under **Delhi University Library System** enjoy all library privileges. There are special systems for allowing outsiders as users.

#### 3.2.4.4 Green Measures in the Delhi University Library:

The olden days building is naturally cool and pleasant with broad opening for natural lights.



Image 22: DLUS - Wood and Empty Space

‘Desert Coolers’ is being used to prevent the excessive heat of the Delhi summers. It uses a pad with indigenous material ‘Khus Khus’. This material is traditionally used as a curtain material that deters heat coming inside. Water is to be sprinkled to it from time to time.

This library has neighbourhood greens. It also arranges pot plants in different locations inside and outside the library both as a decorative as well as a green measure.

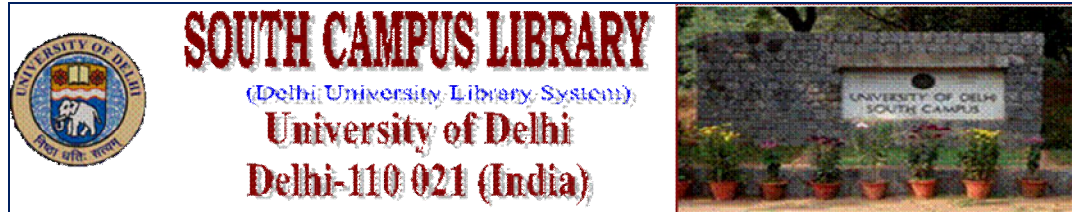


Image 23: DULS

Cleanliness is next to godliness. So DLUS has especially appointed an outsourcing agency (‘Sulabh Complex’) to look over spick and span cleanliness with lots of fresheners, regular garbage clearance, etc.

#### 4 RECOMMENDATIONS AND CONCLUSION:

It is evident from the textual/ photographic data and discussions that the four famous university libraries of India are built on the traditionally eco-friendly way with great heights, widths, open space, thick walls, use of sunshades, etc. Skylights are a common feature of these antique buildings for ushering natural lights. Most of the buildings have the ventilation system as is required in a tropical country like India.

Even to this day of scarcity of open space, new annexes to these libraries are trying to keep up that impression of vast space with the help of clever use of glass as well as the use of expert interior decorators.

The study reveals realities of the four major university libraries in the four major metropolises having a traditional heritage structure followed by more recent annexes are built on the correct environmental guidelines.

All the annex buildings that are being erected in these four university libraries are undergoing proper soil treatment: ants' treatment, porous treatment, etc.

Fire alarm, smoke alarm, extinguishers are all present in abundant qualities in all four university libraries. Regular trainings and demonstrations are being carried out.

Glass is amply used as an eco-friendly material to create great looks and sense of open space and for facilitating natural lights as much as possible.

It is impossible to have so much space for our newer structures. Wood for furniture also is not affordable for most cases. To be green but cost effective as well, we may consider the following in the present day scenario.

The recent trends<sup>vii-ix</sup> that may be incorporated in the new annexes to be built in the coming days are:

- ⇒ photovoltaic (solar) panel system
- ⇒ very-low ozone depletion refrigerants
- ⇒ vertical fin walls to minimize solar heat gain
- ⇒ aluminium sunshades
- ⇒ large clear coated glass windows
- ⇒ skylights

In short, technology used should be durable, recyclable able, re-usable, long-lasting, as far as possible based on indigenous materials, energy-saving among other qualities.

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- x. All the images are from the websites of the relevant libraries except image number 21 which was taken by Shri Bipin Sodhi.
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