



## EDUCATION OF ARCHITECTURE COLLEGES AND LIBRARY SYSTEM

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### ABSTRACT:

Architecture deals with the design of the infrastructure required for a society or any organization. Architecture is the expression of many ideas that help to create a systematic society. It is a branch of the combination of knowledge of art, science, technology and humanity. Architecture can be presented in a variety of styles depending on the place, time and religion.

**KEY WORDS:** Architecture deals, society, organization, technology and humanity.

### INTRODUCTION:

Architectural design began with churches and monuments, influenced by Roman art. In the 19<sup>th</sup> century, countries like India, China and Japan began to develop architectural approaches from new perspectives. Ancient architecture became very famous for its decorative art and design and it started attracting tourists to visit. The younger generation took the initiative to study those structures as students of archaeology. Architectural structures can be classified according to time, caste, religion and place, for example, Buddhist, Hindu, Sikh architectural style. The structure of the Hindu temple is based on scriptures. Islamic architecture, developed in the 17<sup>th</sup> century, can be found in the Middle East, North Africa, Spain and India. Architects began to design infrastructure and buildings according to the needs of the people and their culture. For example - Hindu temples were designed according to the scriptures and with the decoration of Hindu mythological art. In the 17<sup>th</sup> century, people began to feel the need to get closer to nature in order to live well. For example, the construction of the railway transport, the cottage weaving industry was upgraded by James Hargreaves and Jenny started spinning.

In the 18th century, people developed some infrastructure with specific designs for specific uses. Such as the Bibliotheque National Library in Paris, the first public rail service between Stockton and Darlington in 1825, which led to more people migrating from Europe to the United States and, therefore, the need for more housing and infrastructure. Similarly in India, people migrated from rural to urban areas. So the Government of India launched the Urban Development Plan and J.J. College of Architecture to train local people in the field of architecture. By the 19th century, many Indians had been trained as architects and became architects to work on urban development plans.

### ARCHITECTURE AS A DISCIPLINE:

Architecture education gives knowledge to a person who develops the skills to design any infrastructure or product to design a house, building, bridge, road, public place, interior etc. for the society.



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The system of architectural education is more extraordinary than other streams of education. Such as art, commerce or science, one of the most important things in architecture as a discipline is the inclusion of multi-disciplinary topics related to the architecture domain. Although the architectural course emphasizes design, it places equal importance on humanity and technology, giving a clear idea of the design infrastructure for any type of life. The purpose of architectural education is to make a person a professional who can stand independently in the practical field. Architectural education strives to become a competent professional by providing multi-disciplinary training during a five-year bachelor's course.

### EDUCATION OF INDIAN ARCHITECTURE:

The teaching of Indian architecture was started by the British. During the British rule, many infrastructures were built in India, which was influenced by British culture. These buildings were designed according to the British design as Indian architecture was not known or recognized until then. When the demand for architectural work began to increase, the Indian government brought in qualified people from England to consult architects. He started the Draftsman class in the 19th century by John Begg to cater to Indian needs and later extended it to a 4-year course. The history of architectural education can be divided into four stages. The stages are pre-independence, post-independence, late 19<sup>th</sup> century and current situation in 21<sup>st</sup> century.

- 1. Phase 1:** The period from 1750 to 1900 is known as the Neoclassical Architectural Period, which is known as the British Period. The British began to develop infrastructure in India with British architects who trained some Indian workers to help themselves. The Institute of Architecture was demanded in 1859 and accepted by the Government of Mumbai to meet the needs of new infrastructure in the growing city formerly known as Bombay. Railways, post offices, ports and banks were set up to make the city a commercial hub in the country. The first spinning mill was established in Mumbai. The design of most of the buildings in Bombay was influenced by the European style. The first school to start a structured course in architecture was Sir J.J. School of Architecture. The British also started institutes of architectural education in India. In 1913, Claude Batley, an English architect who came to India and started successful practice with Gregson and King. He began teaching as a Visiting Professor at Sir J.J. Principal of the School of Art, Mumbai, and Maharashtra in 1914 and from 1923 to 1943. During his tenure, he took his students to different parts of India and did measurement drawings of buildings and important architectural works. He spent most of his time researching and documenting the architecture of Jaipur, which recognized traditional Indian architecture. He later redesigned the curriculum and added a modern approach to Indian architecture.
- 2. Phase 2:** Soon after independence, Jawaharlal Nehru became the Prime Minister and he started a plan to develop the infrastructure of all the cities and villages in the country. The objective of the scheme is to create infrastructure with modern trends without neglecting the indigenous culture of the country. The plan was to develop future utopian cities in the country. Only a few professionals who have trained abroad like Great Britain face the situation. Therefore, in order to inculcate the knowledge of architecture in the country, it was necessary to start education and training in architecture. As a result, the Government of India began to establish more architectural institutes to train students for the city planning and architecture that the country needed. Government establishes Architectural Department at IEST Howrah, IIT Kharagpur, after Independence University, Vadodara and IIT Roorkee. In 1950, after independence, people started moving from rural areas to urban centers in search of better prospects. Also, about 400 Pakistani Hindus migrated illegally as refugees. As a result, the Indian government planned to build affordable and affordable housing for all those people. During this period, some Indian architects trained abroad and began their practice in the metropolises of India.
- 3. Phase 3:** In 1970-80, the teaching of Indian architecture was introduced with a new perspective. Architects began to consider traditional Indian architecture, the climate in different parts of India, the materials available, and the conveniences of the people. At that time there were very few institutions available in India for the study of architecture. In the third phase, people began to impart knowledge

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beyond city planning, such as building design, interior design and environment, and many institutions and state governments began to establish architectural institutes. The Center for Environmental Planning and Technology (CEPT) is an initiative of a similar organization which has become an architectural university with various departments on the subject of architecture to impart in-depth knowledge to the students of architecture.

- 4. Phase 4:** And tools for architectural education were introduced which changed the aspect of architecture. In the modern era, the growing concern for the environment has had an impact on Indian architecture. Indian urban planning, urban planning started by considering the culture of other countries which led to the rise in property prices in various cities in India. By then, many schools of architecture had been started in India. During this modern phase many architectural colleges were established all over India. B. Arch and M. Arch. In addition, he also began offering diplomas with some research programs, such as fellowships and local government projects. Now, the enrolment of architectural institutes and learners is increasing every year. Many changes have also taken place in the method of teaching architecture by implementing modern skills and technology. During this period, the private sector has started setting up a large number of architectural institutes in almost all major cities of the country. Some of the colleges in Maharashtra are mentioned below as the study is specifically on the state of Maharashtra. Since independence, the Indian government has set up some architectural institutes to develop the structure of Indian cities, but after the 90s a good number of those institutes began to grow. Establishment of Architectural Institutions As mentioned above, the rapid growth of architectural institutions in India is evident from history.

#### **ICT IN ARCHITECTURE EDUCATION:**

AutoCAD software was released in 1982 and was introduced in Indian architectural education in the early 1990's and has since been introduced in a number of software markets that have given a boost to the architectural education system. Some of them are - drafting software - AutoCAD, ZWCAD and BRICS etc. Software / tools for creating architectural models include SketchUp, 3DDCAD, parametric modeling, such as Rhino, Grassoper etc. This type of enhanced software is called Building Information Management (BIM) software. . Although the BIM software is not necessarily mentioned in the university curriculum for teaching, students and professionals are using it to enhance their skills. The purpose of researching the history of architecture and the teaching of architecture is to provide a comprehensive overview of how the discipline of architecture has taken shape over time. As a result, the architectural college library also changed in terms of their services, collection development, and management. It has been observed that no previous study has been done on architectural college libraries in India.

#### **LIBRARY IN ARCHITECTURE COLLEGE:**

As mentioned earlier, the teaching of architecture is fantastic, and therefore libraries are also unique in terms of collection. The Architectural Library collects books on architecture and other minor arts. It covers modern architecture and contemporary architectural design, architectural theory, art, graphics, architectural data, construction, services, history, interior, landscape, urban planning, town planning, housing, technology, environment, humanity, geography, character, law Gathers resources. Because it deals with real estate, religion, cinema, literature, photography and philosophy, it also includes samples of various materials and small and large models of sanitary fittings and fixtures in the Materials Library section. Architectural libraries have some fantastic features that set them apart from other academic libraries. Here are some key features:

- There are no specific textbooks for architects to reference for their learners in the branch of architecture. Architectural teaching always takes the help of all reference books, which contain historical and modern theories and professional works related to the subject of architecture.
- The Architectural Library collects reading material on a variety of subjects to impart knowledge about human life and the environment. Architectural students need knowledge about society to implement

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designs for them. As a result, they need to be involved in the early stages of their curriculum with topics that give an understanding of the history of human life and the development of society, the environment, and so on.

- Architecture learners need to refer to maps, development plans and gazetteers for topics such as 'Town and City Planning' and 'Conservation' published by government sectors. These types of documents change over time. Therefore, libraries need to update all these documents from time to time.
- The Architecture College Library also collects movies / movies to help students better understand the culture of the society and the nation.
- The most important part is the literature section. The library needs a materials department where various samples of building materials, sanitary fittings and interior decoration items are made available.

### **LIBRARY IN ARCHITECTURE COLLEGE AND COLLECTION:**

Architectural libraries collect a variety of resources in many different forms. These include books, dissertations / journals, journals, resource reports, maps and development sheets, architectural drawings, movies and documentaries, reports and standards related to real estate, newspapers, question papers and literature library samples. The collections of the Architecture College Library are as follows.

#### **1. Traditional Sources:**

- a. Books:** The Architectural Library collects books on architecture and other topics related to the subject of architecture. Architectural institutions do not pursue any book as a textbook for their students. The Architectural Institute teaches with the help of reference books where architectural works are described in detail.
- b. Essay / Essay:** Essays are prepared in the last session of both the courses. Architectural students need to develop their design for their dissertation subject, which creates value-added research reports.
- c. Journals and Magazines:** There are several national and international journals on architecture, landscape, environment and humanity that subscribe to the College of Architecture Library. It also subscribes to some journals on other subjects through the Architectural Library to help administrative staff increase their service to the organization. For example, periodicals on information technology (IT) to update the knowledge of IT staff who help students design them through 'AutoCAD' or graphical design software.
- d. Research Reports:** The Architectural Library also collects research reports generated during various architectural workshops, exhibitions and studios or outside the organization.
- e. Maps and plans:** In many cases, architecture students have to look at local or national maps and development plan sheets for subjects like 'urban design' and 'city planning'. Therefore, the library needs to collect all kinds of local and national maps and development plan sheets.

#### **Collection in Architecture College Library:**

The collection in the Architecture College Library began with drawings by Claude Batley during the British period. The growth of the library can be seen from the history of the four stages of architectural education. As it was only a 'Draftsman' course, in the first phase, importance was given to making measured architectural drawings. These drawings have become historical and rare documents of Indian culture and history that are only available in the libraries of a few colleges of architecture. As the number of architectural libraries in India increased after 1990, the use of ICT in comparison to other subject libraries started much later. Libraries of Indian architectural institutes started library automation after 2010 when institutes began to grow in terms of library collections. Since 2014, the Architectural Library has started using open-source software and some are using proprietary software. Some libraries maintain e-resources by joining government portals and accessing open-source resources. Very few libraries have separate library websites to host their libraries and have created institutional repositories to store their gray material.

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The number of Indian architectural libraries is less as there are fewer architectural institutes as compared to other educational institutions. Although most architecture college libraries follow a traditional approach to disseminating information to their patrons, some libraries are playing an important role in enhancing their teaching-learning process. This library enables modern ICT devices and updates all devices from time to time. In addition to the regular facilities, the Architecture College Library has some special features such as archives and organizational repositories for their patrons.

### CONCLUSION:

The architectural education system is different because it emphasizes practical knowledge to develop students' skills. Architectural libraries are regularly used by users to develop their knowledge; Therefore, libraries play an important role in architectural education. Furthermore, the fourth and fifth rules of library science state that 'the library should save users' time 'and' the library is a growing organism'. In this regard, libraries need to use ICT tools to save users time while browsing information from the library. Also, the collection should be increased and managed in such a way that it can give the ultimate satisfaction to their users. Therefore, the researcher has taken the initiative in the next chapter to analyze the current state of collection management of libraries of Indian College of Architecture and has suggested a model for managing library collections and disseminating information in a standardized manner.

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