

Faculty Development Program on Role of Higher Education in Conserving Indigenous Technologies for Sustainable Heritage

Association of Indian Universities (AIU) – Amity University Gurugram (AUH), Academic and Administrative Development Centre, Amity School of Architecture and Planning, in association with Amity Academic Staff College organized five days online faculty development programme on “Role of Higher Education in Conserving Indigenous Technologies for Sustainable Heritage” on the occasion of World Heritage Day & International Day for Monuments and Sites (2023 Theme – ‘Heritage Changes’) from 17th April 17-21, 2023 in Online Mode. 102 participants from 16 different states of India registered for the programme. The key takeaways were:

- A comprehensive understanding about the Indian cultural heritage and gaps in the historical record especially in relationship to unrecognized built heritage and steps to be taken.
- An understanding of technological resources for overcoming the difficulties involved in preserving resources from the recent past, intangible cultural heritage, and major sites of cultural significance.
- An in-depth understanding of the relationship between heritage conservation and its allied disciplines.

The inaugural ceremony started with a welcome note and introduction to Amity University Haryana by Ar. Meenu Babu followed by lamp lighting. Prof. (Dr.) Ila Gupta, Director, Amity School of Architecture & Planning, welcomed the participants and introduced the aim and objectives of the FDP. Prof. (Dr.) P B Sharma, Vice Chancellor, AUH pressed on the significance of the topic in his welcome address. Chief guest Prof Abhay Purohit, President, Council of Architecture, New Delhi emphasized the need of such initiatives in India and extended all support from the Council of Architecture for such activities. Prof. (Dr.) Vikas Madhukar, Pro Vice Chancellor, AUH, spoke about the growth and achievements of Amity University in all academic fronts. Dr. Amarendra Pani, Joint Director and Head, Research Division, Association of Indian Universities motivated the participants. Dr. Sanjna Vij, Program Director, Amity Academic Staff College addressed the gathering by stating that this FDP has also designed keeping in mind to help faculty members to develop digital skills that are relevant to the conservation of indigenous technologies, skills such as digital documentation, data analysis, and the use of digital tools for conservation and preservation which can lead to the development of new technologies and solutions that address complex challenges, followed by a small speech by Ar. Gita Balakrishnan, Founder ETHOS, Kolkata, who was the guest of Honour of the day. Dr. Ila Gupta extended the vote of thanks.

Session 1: Influence of Indian Cultural Heritage on World Heritage: Observations from Walks in India and Bangladesh - Speaker: Ar. Gita Balakrishnan, Founder, ETHOS, Kolkata. Heritage is something that is inherited. Architectural Heritage can be interpreted as an “artifact”, where its elements are witnesses of constructive cultures and of events that occurred during the life of the building. The session started with a fun quiz on identifying Indian heritage technologies and how heritage is displayed in films. She explained the importance of conserving architectural heritage technologies associated with vernacular values. Various vernacular parameters such as climate, context, materials, and construction technique in defining the form and structure of a building were discussed in detail. Chang houses of Assam, Kothi Banal of Uttarakhand, Courtyard bungalows in Kolkata, and Bamboo homes on stilts in Dhaka were discussed to understand the effect of the usage of local materials and construction techniques in achieving the comfort level inside a building. The speaker also discussed action areas required for using technology for spreading design literacy & awareness and the role of architectural institutions in conserving traditional wisdom and thereby conserving the heritage.

Session 2: Influence of South Indian Heritage on Srilanka – The Tale of Travancore and Kandy Kingdoms - Speaker: Dr. Binumol Tom, Professor and Dean, Rajiv Gandhi Institute of Technology, Govt Engineering College Kottayam, Dr. Binumol Tom started the session by enforcing the importance of history and advance research in the field of conservation. She spoke about the evolution of man and various civilizations and how the variety in their belief system, technology, culture etc. culminates into a whole oneness. The concept of lost continent was explained in detail where she explained how various regions around the world are connected through their tangible and intangible heritage. She focused on the historic, climatic, religious, political, cultural and architectural connect between Travancore and Srilanka. The similarities between the

architectural planning principles, technology and materials used were discussed in detail. The highlighted the need for in depth research using advanced methods and techniques for a better understanding of evolutions and influences.

Session 3: Role of Heritage Universities in projecting the Indian Cultural Heritage- Speaker: Dr Mohammad Farhan Fazli, Professor, Department of Architecture, Zakir Husain College of Engineering & Technology, Aligarh Muslim University. Heritage becomes an identity of a place. Heritage conservation and restoration concept is not well understood in India. Dr Fazli emphasized on the role of education sector in creating awareness on the concept of heritage conservation using advanced technologies for documentation and restoration. Various tangible and intangible parameters of heritage was also explained well. The characteristic features that make a Heritage University including Planning, scale ornamentation, site planning, design principles, architectural elements were discussed where he gave numerous examples of heritage universities across the globe. Recent threats to the heritage value of Aligarh University due to human intervention and the conservation efforts taken were discussed in detail. He also ended the session with suggestions to create awareness about heritage and heritage conservation technologies in architectural students.

Session 4: Architecture as a product of environment, climate and culture of a region - Speaker: Dr Tanaya Verma, Director, Amity School of Architecture and Planning, Amity University Rajasthan. Dr. Tanaya Verma's session was widely based on how the native technologies, climate, local context, and culture influence the heritage value of a place. The presentation started with evolution of civilization and how environmental factors affect the evolution and development of a society. She drew examples from multiple theories put forward by Paul Oliver, Thomas Hubka, Edward Brian where they describe how nature and architecture go together. She explained how various parameters of vernacular architecture is contributing to the comfort within the building with Bikaner Haveli, Rajasthan as example. She also explained how technologies, architectural mechanism (spatial organization, physical structure) and socio-cultural background (social parameters like family structure, privacy, economy, political aspects and cultural parameters like history, religion, ideology, traditions and customs, beliefs) were the major determinants for the structural form of the havelis. Using advanced technologies for conservation of these tangible and intangible factors would help in achieving a sustainable heritage.

Session 5: Kakatiya cultural landscapes and world heritage sites of Rudreshwara temple - Speaker: Prof Suryanarayana Murthy, Professor in Architecture, JBR Architecture College, Hyderabad. Prof Suryanarayana Murthy presented his significant research in the field of heritage sites. His session was based on cultural landscapes where he defined cultural landscape as combined works of nature and humankind which express a long and intimate relationship between people and their natural environment. Different categories of cultural landscapes such as clearly defined landscape (created intentionally by man), organically evolved landscapes and associative landscapes were discussed. His presentation was focused on Kakatiya Dynasty. He explained the history, culture and architecture of Kakatiyas and the science and indigenous construction technology used by them. Rudreshwara temple is an outstanding example of temple architecture evolution illustrating a phase of development in science, Technology and art of temple building and construction in Deccan India. Prof. Suryamurthy presented a very detailed documentation of Rudreshwara temple and explained why Rudreshwara is also a best surviving example of Kandiyana tradition of art, architecture and technology, and thereby preserving the temple, we are preserving not only the building, but also the culture and lifestyle of a place in time. He demonstrated and emphasized on using modern technologies for good documentation of important heritage sites in India.

Session 6: Historic trade routes as cultural corridors - Speaker: Dr. Nisar Khan, Jamia Millia Islamia University, New Delhi. The migratory routes used for trade of goods between civilizations gradually evolved into trade routes. The prominent trade routes in India became famous with the commodity it exchanged such as silk route, cotton route, spice route etc. These routes need to be mapped using GIS and remote sensing technologies as these trade routes are important cultural corridors where cultural exchange took place. Dr. Nisan Khan discussed many similarities in the cultural representation (artforms, mythology, architecture, cuisine etc.) of several nations. Highway infrastructures like minarets, sarais, bridges etc. which were erected in the trade route provided an opportunity to exchange goods, culture, language, cuisines and as a result they carry not only architectural value, but also cultural value. In his presentation, Dr. Nisar Khan discussed the

present situation of the trade routes and how they are losing their relevance due to neglect and realignment and emergence of new expressways. He discussed the technologies for proper documentation and conservation to preserve these cultural heritages.

Session 7: Architecture students' initiatives for documentation of unprotected heritage in India - Speaker: Dr. Parul Munjal, Director, INTACH Heritage Academy, Indian National Trust for Art and Cultural Heritage (INTACH), New Delhi. Heritage documentation is a continuous process enabling the monitoring, maintenance and understanding needed for conservation by the supply of appropriate and timely information. It is both Product and action of meeting the information needs of heritage management. Dr. Parul explained the relevance and the process involved in documentation of a heritage. She addressed several questions like

- what do we gain by documentation
- do protected and unprotected heritage require alternate approaches? Why unprotected?
- What aspects, dimensions, complexities to cover?
- How does one use technology in the process and representation?
- Articulating the cultural significance?
- How to balance technical and aesthetic aspects in presentation?

Dr. Parul gave an overview of various awards related to the documentation of unprotected heritages. She also discussed new technological advancement and applications used in the field of conservation. She informed participants about new apps that are being launched in this field.

Session 8: Vernacular architecture of the hills: Cultural influences - Speaker: Prof. Tapan Chakravarty, Consultant/ Adjunct/ Former Professor · Pearl Academy, Delhi / School of Planning & Architecture, Delhi

Vernacular architecture can be defined as a type of local or regional construction, using traditional materials, technologies, and resources from the area where the building is located. Consequently, this architecture is closely related to its context and is aware of the specific geographic features and cultural aspects of its surroundings, being strongly influenced by them. Prof Tapan's presentation was on vernacular architecture majorly focusing on the influence of cultural and geographical regions on the architecture of a place. He discussed examples taken primarily from rural regions of Uttarakhand and regions of Himachal Pradesh to help relate and recognize typological variations. He pressed on the significance and role of people, process and place in designing a built environment. He presented how architecture students have been documenting the vernacular constructions using latest software like Autocad and GIS maps.

Session 9: Silk route as a source of influence of Indian cultural heritage on world heritage through the lens of cultural economy - Speaker: Ar. Abhishek Jain, Founder, Shahjahanabadi Foundation, Visiting Faculty, School of Planning and Architecture, New Delhi. Ar. Abhishek Jain's session started with an introduction to silk route and the regions and bazaars in the silk route like Ballimaran bazaar, fatchpuri chowk bazaar, Chandni chowk bazaar etc. His presentation focused on the Shahjahanabad city where he discussed Shahjahanabad as an intangible cultural economy. He talked about the puras (neighborhood) in the historical city of Shahjahanabad serve as sites of specialized, high-value cultural expression and production. He explained the organic development of the Shahjahanabad city which represents the traditional typology of urban planning. He discussed the typology of buildings, the indigenous technology and architectural style of the buildings and how community festivities, and processions contributed to the cities' intangible heritage. He also discussed the issues with the current planning system and how the constant and strong visual interaction which was achieved in the old chowks between traders and community people are missing in the current planning system.

Session 10: Cotton Route: Cultural Landscape of Indian Coast- Speaker: Prof Xavier Benedict, Founder Trustee, AARDE Foundation, Heritage Activist, Principal Architect, Anameka Architects and Designers. Prof Xavier gave an introduction on how the cotton route developed and how India was the major contributor of cotton. He explained how all the major trading ports are aligned with deltas and wetlands of India and how the cotton route was created. He discussed several dynasties which the cotton route is connecting and how the cotton route served as a cultural exchange route for these dynasties. He also discussed how the cotton

route will help in reviving nature. His session concluded with a discussion on how the cotton route could become an identity of India.

Session 11: Conservation of the Taj Mahal; Agra: Past and Present - Speaker: Dr. Amita Sinha, Former Professor of Landscape Architecture and South Asian Studies, University of Illinois at Urbana Champaign (1989-2018). Dr. Amita Sinha's session focused on the historical monument, Taj Mahal. She explained the history and story behind the construction of Taj Mahal, the spatial layout and planning of the Taj compound while explaining the significance of each built structure in detail. Several issues that possess a threat to the heritage value of the monument were also discussed. Dr. Sinha explained various conservation efforts taken by the Government to preserve the Taj Mahal in detail. She concluded the session by reaffirming the importance to document and preserve the heritage monuments of India. Valedictory Session- Ar. Meenu Babu gave an overview of all the sessions. Guest of honor, Dr. Amita Sinha addressed the gathering and discussed the way forward. Dr. Ila concluded the session with a vote of thanks.