University of Strathclyde

Department of Architecture

Social and Cultural Sustainability in Architectural Education in India

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Declaration of Authenticity and Author's rights

This thesis is the result of the author's original research. It has been composed by the author and has not been previously submitted for examination, which has led to the award of a degree.

Signed: Krishnokoli Dutta

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Abstract

Architectural education in India is a five years course which includes numerous theory subjects, practical lessons, an internship and a thesis submission. Among the various subjects taught, the topic of sustainability remains an underlying theme. This thesis investigates the importance of the social and cultural aspects of sustainability in architectural education in India.

The thesis studies the different aspects of sustainability in details. It examines the ethos and curricula of hundred architectural institutes worldwide, and hundred architectural institutes in India respectively. Comparison of the collected data helps in analysing the gap in knowledge. A detailed study of how architectural education has been imparted in India over the past centuries has been done, to understand whether the knowledge gap is a recent occurrence. The study of history of architectural education highlighted the colonial history of India. A background theory of decolonization of architectural education has been studied in brief to understand whether it is applicable in and helpful for the present scenario.

A conceptual framework of the study and a research methodology are developed to further proceed the investigation and address the knowledge gaps. This thesis argues that it must be understood how social and cultural sustainability is ideated by the architectural academic experts of India, and concomitantly by the faculty members of architectural institutes across India.

Mixed-method research was undertaken and is detailed in the empirical chapters. Qualitative research including semi-structured interviews of the architectural academic experts, and Quantitative research including questionnaire survey with the faculty members across India were conducted. The experts agree to the importance of inclusion of Social and Cultural Sustainability in the architectural curricula, and provide suggestions about the best way to achieve it. The faculty members provide mixed responses and add their opinions regarding the same.

This thesis establishes the need for the inclusion of the topic of Social and Cultural Sustainability in architectural education in India, and raises the questions regarding the best suited ways to achieve it, and prods at a background theory that may be helpful to the cause. It asks if architectural practice in India will get a more empathetic perspective towards the needs of the users through this inclusion, and what pedagogic methods may help the architectural students move forward in that direction.

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Chapter 1:

Introduction

The chapter starts with an outline of all the chapters and annexes included in the dissertation, followed by a brief note about the personal motivations for conducting this research. Following this, the research background, where the topics of importance will be introduced. The section on Social and Cultural Sustainability in Architectural Education of India, is based on the detailed investigation of the topic, and its present scenario in India. The problem statement will be stated through the culminating questions. From the stated problem, a clear list of the research questions and objectives will be developed. Each of these will be explained in detail, so that the problem statement, need for the research and its objectives are clear. The background theory of Decolonisation of Education, and how it can be applicable in Indian architectural education system will be discussed. A brief outline of the research methodology will be provided. The scope and limitations of the study, the need for and the originality of the research will be described at the end of the chapter. Why this research is needed and is absolutely original will be discussed at the end of the chapter. This chapter will lead towards the discussions about the need for the inclusion of the topic of Social and Cultural Sustainability in Architectural Education.

1.1 Introduction and Motivation

Architectural education in India is a 5 years course, which encompasses different subjects, both theoretical and practical, 24 weeks long internship and a dissertation. The aim is to ensure that the students of architecture are ready to handle the clients and their needs in different live projects, after the completion of their studies. The Council of Architecture of India is responsible for the regulation of the architectural profession and education in India since 1972. The Council has set a curricular outline which needs to be followed by all schools of architecture in the country. The Council has also set a minimum standard, which needs to be met by all the schools.

I have studied architecture in India. I have obtained both bachelor's and master's degrees in architecture from two different schools of architecture, and then I had proceeded to teach architecture in another school. My experiences in these different periods have led me to conduct this research. The following paragraphs will elaborate on my experiences from this journey.

As an undergraduate student of architecture, studying in a school located in a different state from my home, I was intrigued to know about architecture around the world, and across India. India being a vast nation, different regions, based on their history, geographic location, and local culture, have different styles of architecture. The curriculum supported my interest to know about the different styles of architecture, but seemed limited to the history of those styles. Information about how they affect or are interpreted by the present generation of users was unavailable. The bookish knowledge seemed incomplete, as it did not delve into the present scenario of the professional field. This was further proved when I started my internship, where real life client interaction, architectural problems and solutions were based upon the socio-cultural background of the clients. During my post-graduation degree in architecture, some knowledge about the present scenario was obtained, about the government policies and by-laws, and how they may be applied in the professional field.

Though in both courses the topic of environmental sustainability was discussed and prioritised, the socio-cultural aspect of sustainability in architecture was missing.

In 2015, I joined as an Assistant Professor in Indira Gandhi Institute of Technology. As a teacher of architecture, I got many opportunities to understand how the topic of social and cultural sustainability is very important for architectural education in India, yet how the topic is being ignored in the curriculum. I was a member of the syllabus committee for the university my workplace was affiliated to. I also participated in the faculty training programs organised by the Council of Architecture. The topic of social and cultural sustainability was sidelined in the syllabus committee meetings, where other technical subjects and topics were prioritised. The faculty training courses where I participated, discussed topics like vernacular architecture, cost efficiency and project management. Social and cultural sustainability is relevant to all three topics, but it was not discussed.

The curricular outline provided by the Council of Architecture has provision for 20% of the class-time to be devoted in topics of relevance at the teachers' discretion. This was useful for the introduction of the topic of social and cultural sustainability to the students. As students of a government institute, where admission is allowed through competitive exams, the students in each class had different social, economic and cultural backgrounds. A discussion about design of a residence introduced several design aspects, based on their own experiences, and what they have seen around themselves. Presentations about case studies conducted by different groups of students showed variances in observations, which led to further detailed discussions about social and cultural sustainability. The students found the topic interesting, and applied their learning in the design projects, which enhanced the quality of their work. From this experience, I was sure that the topic of social and cultural sustainability is relevant to the architectural education in India, and it must be included in the curriculum.

In 2019 I began my research on the topic of Social and Cultural Sustainability in Architectural Education in India. Based on my previously mentioned experiences, I started studying the background theories related to this topic. Alongside, I enrolled in a class of 'Culture and Behavioural Factors in Architecture and Urbanism'. The goal was to understand how the topic of social and cultural sustainability was being included in the classroom, and what teaching methodologies were being applied. My supervisor, Prof. Ashraf Salama, helped me in this. I also received numerous help from my peers, regarding related titles to be studied, work and time management, and understanding the research methodologies better. My dedication to academic excellence was motivated and inspired by my peers.

As I pursued this topic, learning more about social and cultural sustainability, the history of architectural education in India, how it evolved from apprenticeship to a cerebral form, the role played by British colonialism in this change, the post-colonial effects on architectural profession and education in India, and why the state of architectural education in India is as it is in the present day, I realised the growing importance of inclusion of the social and cultural aspect of sustainability in the curriculum. As part of my primary data collection, I had to collect data through a questionnaire survey from faculty members of architecture

from all across India. The results of this survey further supported the cause. I also had to conduct semi-structured interviews with several architectural academic experts of India. The interviews, sometimes turned into detailed discussions that carried on for nearly five hours. I have learnt from the experiences and thought processes of these experts, as they relived their architectural journey in India, starting as far back as 1960s. The change in education, profession, professionalism, the motivations, the interchange of positions between the architects and builders, and more was discussed. These discussions motivated me further more to introduce the needed change in the architectural education scenario.

1.2 Research Background

The following paragraph briefly introduces and explains the meaning of the keyword 'sustainability' in reference to the thesis topic "Social and Cultural Sustainability in Architectural Education in India". The term 'sustainability' was defined in 1987 in the United Nations Brundtland Commission' report "Our Common Future" as "*meeting the needs of the present without compromising the ability of future generations to meet their own needs*" (United Nations, 2023). In 1992, the UN conference on "Environment and Sustainable Development", held in Rio De Janeiro, Brazil, focussed on the three pillars of sustainability: social, economic and environmental factors and their interdependency. The conference highlighted that balancing and integrating the environmental, social and economic concerns is vital for sustaining human life on Earth. As they evolve together, concomitant action is required in all three sectors to achieve success in any one. This needs new perceptions and approach to production and consumption, livelihood, work and decision-making.

Sustainable development is a philosophy that drives many campaigns and, has led to many UN conferences in subsequent years. The aim of these conferences is to monitor the progress towards the set goals, report on the achievements and provide additional recommendations. One of the major results of the conference of 1992 in Rio de Janeiro was a document called Agenda 21 (United Nations, 2023). This document summarised the strategies for the sustainable approaches to human development. The recommendations varied from new methods of natural resource preservation to new methods of education. Social and economic dimensions form one section of the Agenda 21. Gradually, more research on social and cultural sustainability has been undertaken. Social and cultural sustainability entails valuing disparate cultures and participation of people from various social spheres in decision making. Its success depends on people's behaviour, acceptance, value systems, and decision making both in public and private sectors (Oktay, 2012). Architectural education has also incorporated the approaches to the design of sustainable architecture and urban design in the curriculum.

People spend a major part of their lives in built spaces. Their activities, experiences and lifestyles evolve within their built habitat and social surroundings. The understanding of the social role and related impacts of buildings is important for students of architecture. They need to understand that 'social' is not just an adjective denoting higher morality or responsibility, but an objective description of a concrete phenomenon (Bulos and Teymur,

1993). It gains importance when they begin their practice, observe the evolving environment and relate their building designs to it. Through the observation and analysis, they can understand the current and potential future needs of the buildings' end users. In this way the new generations can better comprehend the needs of the current and future generations based on their knowledge from previous generations (Ganju and Dengle, 2013).

As engineers focus on developing new technologies that aim to reduce environmental impacts of buildings, the critiques note that technological solutions do not always consider local cultures and behaviours, and could lead to other problems and loss of cultural integrity (Ganju and Dengle, 2013). This shift towards technological solutions has its roots in the architectural education system that does not sufficiently emphasise the importance of social and cultural sustainability.

1.3 Culmination of Problems

1.3.1 Architectural education worldwide

This section provides a critical overview of the current state of architectural education worldwide based on the research in the last 20 years undertaken by theorists and educators in this field. In different parts of the world, architectural education is imparted by following different methods, models and focus.

The dominance of engineering approach in teaching

In some countries like Japan, the schools of architecture are located within technological universities where the students of architecture study with their peers who are fully concentrated on the technological aspects, so the architectural curricula also emphasise the same. In the first year, they study the same subjects as the engineers, and in the later years, simultaneously with the design skills education, they are taught by the teachers specialised in technical subjects. Architectural education in Britain and Israel is more prone to emphasise the aesthetic aspects. Comparatively, the focus on the technological aspect of design is not as strong. When asked if they accept their clients' views, the students confirm that they are open to functional changes offered by the clients as users, but are keen on sticking to their own ideas of aesthetics of the design (Symes, 1993).

An exclusive focus on abstract aesthetics

The thoughts, values and ideas pertaining to the architectural profession are based on the related education, as it may lead the future professionals towards advanced enterprises. Some researchers believe that architecture students, and later on, as professional architects, emphasize abstract aesthetics and forms but ignore the important problems of ecology, social sciences, and the socio-political and socio-economic aspects (Salama, 2015). Students of architecture should be offered a plethora of information and ideas from all the above areas of research, so that they can apply new and more innovative forms in their future building design. Wigley (2004) noted:

"*A good [architecture] school fosters a way of thinking that draws on everything that is known in order to jump energetically into the unknown, trusting the formulations of the next*

generation that by definition defy the logic of the present". (Wigley, 2004, as cited in Keniger, 2016).

Aesthetical approaches of architectural schools should correspond to the local social and cultural contexts. They should not support imitation of architectural styles from other places, as it would be difficult for the students to relate to those that do not belong to their cultural background or geographic surroundings (Williams, 2009). Their ideas and design solutions should be congruent to the social and cultural needs of the clients as users. Failing to do so may lead to an aesthetically pleasing design, which ultimately may be inefficient and unsuccessful for its purpose. An awareness and understanding of perceived and real environmental effects are critical for students both as users and as future designers and architects (Salama, 2015).

An emphasis on architectural theories and the lack of focus on local contexts

Introduction of architecture to students has always been a unidirectional method through theory classes, where they were told about topics and subjects by a teacher. The students do not have much input unless there is an interactive session after the lecture is complete. Over the last few decades, there hardly have been any changes in the architectural curriculum. The schools seem to indulge more into professionalism, and thus the scope for the students to learn by trial-and-error method is diminishing day by day. There is no scope for them to make mistakes and learn from them (Keniger, 2016). The key negative aspect of the contemporary culture of design pedagogy is that the topics talked about in the lectures pertain to theory, which often have gaps between them, or are not related to the practical world. This creates a gap in the knowledge and the students are never really prepared for the real-world problems (Salama, 2015).

The lack of focus on communication skills

The students thus are prepared for the professional field with a very limited 'bookish' theoretical knowledge and, design knowledge that is based on the briefs that had been prepared for them by their tutors, without any comprehension of demands of the client, or even the basic conversation skills needed for communicating with the client. It is important that during their training, architects are taught the art of listening and communication. They need to understand how to listen, talk, negotiate and extract the brief from their clients and at the same time, give their clients an idea of what design they have in mind so that the client may feel confident about the architect and the work that he or she is about to produce (Nicol and Pilling,2000). The teachers should also innovate their approaches. It is important for a teacher or a critic to analyse a design from the perspective of a student, rather than imposing their ideas on students. This would develop a sense of self-criticism in both the critic and the student, which helps in development of design (Williams, 2009) Since assessment plays a very important role in influencing the learning of students, different tasks, other than their main assignments should be assessed. These could be a student's

ability to listen and learn from perspectives of others, their ability to negotiate and develop a design, or how well they might contribute to a team project (Nicol and Pilling, 2000).

The slow inclusion of emerging knowledge from other disciplines

There is a problem in what is being taught and what is being learnt in schools of architecture. Architectural curriculum around the globe has flexibility that enables innovations and useful additions, as the professional field is continuously updated. A teacher must translate their insights and ideas into the curriculum when and where necessary. Critical awareness of advancements in different disciplines helps the students to expand their knowledge beyond architecture and develop capabilities to respond to new practical and technical challenges, as well as to the changing human condition and environmental ethics (Williams, 2009).

The lack of consideration of socio-cultural differences

When design problems are chosen, they mostly cater to the majority group of the society, and the problems can be analysed by applying traditional approaches to building design, for example by using satisfactory design templates. However, they may not satisfy the needs of different other groups of clients belonging to different social and cultural backgrounds. Students need to be made aware that their client base will be varied and that even in the same group of clients, different people may have different demands based on their physiological, social and cultural needs. It is their duty as future professionals, to understand the differences between individual people and social groups in order to address such differences through the building design and meet their social and cultural needs.

It is important that a student of architecture must have theoretical as well as the practical knowledge, and then derive the design ideas from both (Akozer, 2002). Such a practice will enable them to stay updated and have a welcoming acceptance of the constant incorporation of varied concepts into their designs. Sustainability is one such concept that aims to harmonize ecology, economy, society and culture. The inter-connection between culture and the societal needs, and the impact it has on the built environment should be emphasised in the architectural curricula.

The sites and design problems given to students should be chosen more carefully. Instead of hypothetical design problems, the design project could be based on real occasions with real clients. According to the results of a design studio project that Morrow had run in several UK schools of architecture, the students, who have worked on an abstract site with a number of spatial, social and environmental characteristics, are not ready to work on real life sites which lack such characteristics and have bland neighbourhoods (Morrow and Brown, 2012). Architecture, when taught in studios that are isolated from the real world outside, remains incomplete. Such practices can lead to ‘studio seclusion’ and narrow-minded thinking, reinforcing the production of ‘objects and signatures’ that breeds abstraction in design. The program could lead to a propensity to be purely hypothetical and result in outdated design approaches (Jarrett, 2000).

The above overview demonstrates that there is an agreement between researchers about the need to change architectural education by addressing social, economic and environmental issues more widely, and by educating students on real world projects.

1.3.2 Architectural education in India

This section provides a critical overview of the architectural education in India with reference to the thesis topic "Social and Cultural Sustainability in Architectural Education in India", mapping its journey from as far as 250 BC, to the colonial period, the newly independent India, and followed by the present stage.

Traditional building crafts in India had been taught through the apprenticeship system called "*Guru-Shishya Parampara",* where *Guru* means teacher, *shishya* means student, and *Parampara* means tradition in Sanskrit. The students learnt the practical work along with the theoretical knowledge on a building site, as Mehta (2020) describes:

"The knowledge was passed on from the master in a more direct way: by the later actually assisting the former on the worksite, starting as a junior craftsman (*sthapati*). In other words, like a true vocational activity, it imparted learning by doing and in the process perpetuated the best existing practices."

The former system has mostly been abandoned with the advent of the colonisation period, except for rural vernacular practices. Though colonised by Europeans since the mid-18th century, the European architectural education system was not brought to India immediately. A few architecture colleges aimed at training skilled draftsmen for civil work, thus neglecting the traditional architectural knowledge and the skills involved in creating the Indian traditional styles of architecture (Ganju and Dengle, 2013).

Architectural education in India has ultimately shaped itself in a unique way. India, having a culture that is open to adaptations and influences, has been influenced by many other foreign cultures. However, even after assimilating all the influences, the Indian culture and style have maintained an identity and individuality of its own (Dallas, 1959). The first institute for architectural education in India was established in 1913, in Sir J. J. School of Arts, Mumbai (Mehta, 2006).

When in 1947, Jawaharlal Nehru became the first prime minister of an independent nation, it was the opportunity for developing a new vision for India. Under the Nehruvian principles, the focus was on building a nation which retained its own identity, away from the colonial ideas that it had been struggling against for the last two centuries. Architectural education made great advances, envisioned and propelled by the Nehruvian principles. Campuses of government aided Indian Institute of Technology (I.I.T) and the National Institute of Technology (N.I.T) were constructed across the nation, and department of architecture and planning formed an important part of these institutes. It was envisioned that the "future architecture would be widely represented in sanatoriums and culture centres, canteens and factory structures" (Dallas, 1959, pp. 74 – 80) that would blend well with the old cultures and traditions of the nation.

A Seminar on Architecture inaugurated by Prime Minister Jawaharlal Nehru in March 1959, T. R. Chhlbber assessed the position of architecture in Indian society:

"*The profession of architecture was in need of revival by reorganisation, and strengthening of the professional organisation. Architecture was being accepted essentially as a way of life and not just buildings and structures. Architectural creativity was needed therefore to satisfy both spiritual and the material needs of the users. Along with plenty of imagination architecture demanded a frame of reference and a set of rules.*" (Chhlbber, 1959).

Prof. S. H. Parelkar, the honorary treasurer of the I.I.A. Council in 1936 – 1937, noted that newly independent and developing nation had rapidly and vastly changing needs. With the advent of the industrial revolution, the architect's focus shifted from the traditional forms of architecture towards the needs of the hour of the communities (Parelkar, 1959). The need for a change in the architectural pedagogy became imminent.

Gradually the journey of architectural education in India took a slow turn in a very different direction. Indian architecture in the 20th century developed over the foundation of the work done abroad in the 19th century. Since then, contemporary architecture in India has been influenced by the work done in the West. Modern architecture, to be at par with the international standards, has alienated itself from a major portion of the society who share their lived experience with the built environment. This has not led to the benefit it wanted to serve the society. Ideally the education of the architects should be such as to monitor the profession. In reality, the scenario has proven to be the exact opposite where the profession monitors and tailors the architectural curriculum (as mentioned in section 3.4).

Presently, the schools of architecture in India are affiliated to the legal body of Council of Architecture. The Council also governs the profession and the professionals. Thus, the curriculum is directed by the routes undertaken by the profession. The opportunity for the schools to exhibit any uniqueness is missing. The standard is set by minimum parameters by the Council, and there is no incentive for the schools of architecture to go beyond the given standard (Mehta, 2020). There are over 400 schools all over the nation (Council of Architecture, 2023). Considering the high number of students in many schools of architecture, the number of faculty members needs to be maintained as per the Council guideline that "*The institutions shall maintain a teacher/student ratio of 1:10 including core faculty, faculty from allied disciplines and visiting faculty.*" (Council of Architecture, 2017). Many of these teachers simply presume their role to be judges of the students work, rather than mentoring or nurturing them towards betterment. The uniformity maintained in the education system is leading towards and resulting in a uniform mediocrity, which is perpetuating itself (Mehta, 2020).

Architectural education must help students to reason effectively in order to be able to make judgements and decisions. Currently, the role of an architect in the society is more than just a designer of buildings, but that of one who helps to improve the quality of life; thus, the architectural education must be able to produce not only designers but problem solvers (Davoodi and Kuvakure, 2014). To achieve that, the method of teaching needs to be

upgraded with time. The design guidelines should not only be a profit driven model, but a model that aims to improve quality of life of building occupants. The design studios today are ideally made for the teachers to deliver radical ideas and for pedagogical activities. In parts though, the studios suffer from the corrupt "*banking model*" of education that the teachers have undergone in their own times as students. The "*banking model*", according to Brazilian educator Paulo Freire's book 'Pedagogy of the Oppressed', is the concept of education whereby the educators deposit their knowledge and information into the students, rather than shaping them into inquisitive beings and drawing the knowledge out of them (Featherstone, 2020). The design studio is architecture's signature pedagogy. The social and cultural environment of architectural education in the studios needs to be carefully nurtured.

The curriculum should be modified to include the social and cultural sustainability aspects of architecture that are congruent with the social and cultural aspects of India. Students from dominant cultural and affluent economic backgrounds inherit substantially different cultural capital than do economically disadvantaged students, and schools generally value and reward those who exhibit that dominant cultural capital. The schools thus, systematically degenerate and devalue the cultural capital of students who occupy subordinate economic class positions (McLaren, 2009 in Brown, 2020). The overall aim of architectural education in India today is to create the perfect practitioner who will build the most iconic building. Somewhere along this line of thought, there lies a lack of identity in the buildings being created. In an urge to create the most iconic edifices, the energy consumption is soaring high, glass boxes are multiplying and the urban fabric is being torn to shreds, while a part of it strives to lead a life of basic human dignity (Srinivasan, 2011). The students of architecture in India are mostly unaware of such existing problems and of their professional responsibility towards mitigating them (Srinivasan, 2011).

In India, education is perceived as a prized ticket to employment and personal prosperity, and this perception commodifies education and creates a disparity between those who have it and those who don't. This job-oriented education system lead by objectivism may teach the students the technicalities of the field, but it has major shortcomings, when it comes to seeking the knowledge or information that is needed to design a space for the users from varied social and cultural backgrounds. Since objectivism treats the students as empty vessels to be filled with previously existing knowledge, there is no scope left for them to use the experiential knowledge that they have gained from their cultural backgrounds. This results in handing down facts and learning them, without any analysis or interpretation, thus minimising the scopes for debate or new arguments to arise (Srinivasan, 2011).

Architecture is an integrative discipline. The fragmented curriculum being taught today, divided into various subjects, tests, studios, submissions, each being placed into water tight compartments, with no scope for transfer of learning occurring automatically in learners though it is expected to happen, is a major problem (Srinivasan, 2011). The universities and the committees that decide on the educational curriculum have chosen some very abstract theories and standardized pedagogical formulae for educating the young architects, while ignoring the socio-cultural needs, the expectations and needs of the users, the professional

practice needs as well as the ground reality of built environment. Perhaps one can blame for this lack of reaction the enormous complexity of Indian economies and societies, not to mention the colossal vested interests and formidable private benefits, which despite their dynamism tend to be conservative towards institutional change (Tzonis, 2014).

One of the major questions today is whether architectural pedagogy in India trains the students to think and design for specific parts of the population that forms a major part of the society, i.e., the old, the poor, the children and the under-represented. Such designs require multiple types of knowledge, as summarised by Salama (2005, p. 8).

"*The current system of architectural education tends to socialize its members, the teachers and the students into a predominantly artistic paradigm that emphasizes personal feelings, subjective judgement, intuition, and imagination at the expense of social and professional responsibilities. In order for future architects to function within cultural contexts and address societal realities and understand the true meaning of humane environments, the social and cultural paradigm should be introduced. In essence, this requires the development of students' skills that go beyond the capacity of artistic paradigm. The intention is to add and develop knowledge, not to replace or omit.*"

The above sources outline the changes in architectural education in India since the beginning to the present day. It enlists the questions faced by the current pedagogic system and the changes that need to be introduced.

1.3.3 Society, Culture and United Nations Sustainable Development Goals

The following section discusses the Sustainability Development Goals (SDGs) set by the United Nations and how they can help in achieving social and cultural sustainability in built environment. The pathway to achieving social, cultural, economic and environmental sustainability is to adopt the 17 SDGs, stated as follows:

1. No Poverty
2. Zero Hunger
3. Good Health and Well Being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible Consumption and Production
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace, Justice and Strong Institutions, and

17. Partnership for the Goals

Through the responsible practice of architecture, some among the 17 SDGs can be achieved, such as:

- SDG1: No poverty. Though architecture cannot directly affect the financial condition of people, it can affect and minimise the impact of poverty on their lives. Architects can develop low-cost buildings and settlements, which are safe and healthy, which can be used for educational institutions, housing co-ops, etc. and can help in improving settlements.
- SDG2: zero hunger, by creating conditions through landscape design, that supports sustainable farming. Today, fertile land is scarce due to rising urban density, restricted access and harsh climatic conditions. Building design and landscape planning can help by developing built environments that favour land use for food production in the form of micro-gardening initiatives, urban farming projects and regenerative landscape design.
- SDG3: Good health and well-being, by use of spatial design that allows social distancing at public places and at work. Infrastructure, health institutions and urban area designs affect public access to health systems, sanitation and hygiene. Layouts of settlements should encourage physical activities.
- SDG4: Quality education, by providing access to schools and education that defines the future of children, whether in refugee camps, in informal settlements or in rural communities. Architecture also plays a key role in creating affordable buildings, inclusive and accessible for children, including those who have special needs, or those who are marginalised.
- SDG5: Gender equality, by providing built environments for all citizens irrespective of their gender. Public spaces, institutions and services must minimise the risk of abuse of girls, women and LGBTQ+ citizens, and prioritise their security. Affordable and secure buildings are needed to provide health services and basic sanitary services for women and LGBTQ+ citizens.
- SDG8: Decent work and economic growth, by providing safe public space and affordable transit routes to the workplace, which are crucial for finding employment. The availability of jobs is decided by the easy ability to move from home to the workplace and the time spent in the transit. Urban spaces must be designed so that the people from the marginalised societies may also find access to the business outlets.
- SDG10: Reduced inequalities, by prioritising design that ensures inclusion and accessibility for all, including citizens that are marginalised, at risk or living with a disability.
- SDG11: Sustainable cities and communities, by making cities and settlements inclusive, safe, healthy, resilient and environmentally sustainable.

Schools of architecture need to include these goals in their curricula to help students to understand and adopt the goals of sustainable development in their future professional work. Sustainability in the social and cultural context entails a mindful and inclusive development. Today, culture is understood as a historic background that needs to be constructed through economic and marketing strategies as, a commercial brand, rather than presenting it with the inputs of people and society living in it. This needs to be

changed as culture represents social values, beliefs, aspirations and traditions. Culture can be expressed through the buildings that act as representative of the age in which they are built including the associated traditions and beliefs (Pelletier, 2012).

The social and cultural criteria of sustainability, when included in high level policies, are often not implemented at the local level. The approach towards social and cultural sustainability needs to be changed. Both social and cultural sustainability lag behind the other aspects of sustainability, i.e. the economic and ecological aspects, in every sphere, even though there are policies and guidelines about the sustainable use of natural resources, that encompass not only ecological and economic, but also social and cultural dimensions (Throsby 1999; Council of Europe 2000; Hawkes 2001; Littig and Griessler 2005; Forest Europe, UNECE and FAO 2011 in Axelsson, et al. 2013).

Social sustainability is an emerging area of urban planning policy and is practiced in the developed and the developing world (Dempsey et al. 2011; Colantonio & T. Dixon 2010; Karuppannan & Sivam 2011 in Woodcraft, 2012). The concept is increasingly used by governments, public agencies, policy makers, NGOs and corporations to frame decisions about urban development, regeneration and housing, as part of a burgeoning policy discourse on the sustainability and resilience of cities (Woodcraft, 2012). The contribution of an architect can be much more vital and strategic. As a precondition, architects can recognize that they are not the ones who really create a space. Culture and society create a space. Thus, any truly architectural or cultural theory of the city and its reconstruction rests not only on its intelligibility, but on its accessibility to oppressed and subordinated parts of the society and cultures in order that they can appropriate it in their struggle for empowerment and social change (Dutton, 1989).

Socio-behavioural scientists have been collaborating with architects for a long time now, but there is a gap in the thought process of both professions. The socio-behavioural scientists use analytical methods, where they analyse the information systematically, and infer the solutions through a logical and rational process, while it is difficult for the architects to solve their design problems in such systematic manners as such design problems require lateral thinking to reach a suitable solution. The students of architecture may have had classes on sociology and culture, but they cannot apply the same thought process in their design ideas. This is blamed on the non-visual form of socio-behavioural information, as the students of architecture are trained to practice a visual thinking procedure (Salama, 2008).

The rapid change in living conditions and the contradictions between global and local cultures create new paradigms and new dimensions about culture-space interactions that seem problematic in the present situation. The internationalisation of cities came into conflict with the so-called ‘traditional’ values, and in the confrontation, continuity with the past was broken and liveable cities were changed beyond recognition. A major contemporary problem in learning about culture for the students of architecture is that the theorists and the students belong to different cultures. The theories they learn are about Western cultures, whereas students from the other parts of the world need equal knowledge in theories of their cultures, if they need to practice architecture in their own

countries. The students of architecture, and later the young architects draw their solutions for design problems, from what they see in contemporary magazines, rather than from observing their surroundings, and the tradition and culture of the common people they design for (Hegvold, 1999).

1.4 Decolonisation of Architecture: Background Theory

Commencement of Western architectural education in India

India has a past of colonisation. For two long centuries parts of the nation have been colonised by different countries, like France from 1674 to 1954 (Rai, 2008), Portugal from 1510 to 1961 (New World Encyclopedia, 2022), and Denmark from 1620 to 1845 (Fihl and Lillelund, 2015). Great Britain colonised India from 1660 to 1947 (Davies, 1985), and thus, has left a prominent imprint on the society, culture and architecture. The new style of Indo-Saracenic architecture came into existence in India in the late 19th century (Rethinking the Future, 2022). As described in section 1.2.2, architectural education in India, prior to the colonisation period, had been in the form of apprenticeship, where the students would assist the master architect for a long time and learn the skills, until the point they were deemed fit to be master architects themselves. The process of a student turning into an architect would include years of hand-on-material training. This tradition changed with the advent of the Western education system. Colonisers of India had designed the new education system to suit their own interests. The colonised natives were forced to travel the inclined slope of progress, and thus their indigenous ideas, knowledge and languages were demeaned, giving way to the hegemonic Eurocentric education system (Ramani, 2011).

During the colonisation period, there was a need for skilled men who could decipher and help execute the plans that were being sent to India from the Public Works Department in London. So, the training was condensed to a few years of cerebral education, in the pretext of solving problems, that had never been solved before. In Europe professional bodies like R.I.B.A. in the U. K. supervised the program designs of vocational training in architecture. The training was an extension of the profession itself, where leading professionals would teach the trainees. This system came to India in 1913 at Bombay (now Mumbai) where Sir J. J. College of Architecture was established under the benevolence of R.I.B.A. The scenario changed post-independence (Mehta, 2020).

New institutes of architecture were set up, with good teachers, teaching what they had learnt from the masters themselves, thus continuing the trend of the colonial teachings (Mehta, 2020). Seminars were held, where the future of the built nation and the profession was discussed. The long period of two centuries of colonisation had left the nation divided between two ideas. One idea was to move away from the colonisers' point of beautification, making their way back to the traditional Indian styles of architecture from the historical eras of the past. The alternative idea realised the long struggle of the nation and its people for freedom. The battle had not been easy, and in this long period, the ideas of aesthetics, beauty, and modern styles had taken a back seat, while ground reality took the front seat, and that could affect the architectural scenario while building a new nation (Mehta, 2020).

Need for Decolonisation of architectural education.

Although 75 years have passed since the nation has achieved independence, the present architectural curriculum does not reflect any of the aforementioned ideas. The present curriculum leads the students towards the West-centric architectural ideas, lacks focus on the local needs, traditions, and the rich intangible and tangible heritage of India. The students are encouraged to look at architectural education through a Euro-centric lens, where thinking global is the current trend, rather than focussing on the current local necessities (Mehta, 2020).

The background theory of 'Decolonisation of architectural education' needs exploration. The call is for knowledge pluralisation or expansion, which refers to the incorporation of the complex ways to attain knowledge about the subaltern societies and cultures. These calls represent a principled negation of knowledge orientation that is predominantly West-centric. Decolonising education is based on the inclusion of all knowledge forms bequeathed to humanity including African, indigenous, Arab-Islamic, Chinese, Hindu, Indo-American, Asiatic, and Western knowledge forms. This all- inclusive approach to knowledge is based on an inter-cultural understanding of multiple and heterodox forms of being human. All knowledge forms have to be brought into play in intercultural education that promotes a type of epistemic openness to the knowledge of all human beings. This approach would seek to undermine knowledge parochialism, which is the idea that one's own knowledge system is superior and thus sufficient for complex living. The call is for institutes to cultivate respect for different people and their cultural and knowledge systems (Fataar, 2018).

The dominance of Western knowledge forms the basis of coloniality of knowledge. Walton (2018, pp. 40) remarked:

"*There is a conceptual reservoir in the inclusive education that can lead towards decolonising education and help in resisting coloniality*".

Decolonisation of the curriculum is important, as often the colonised curriculum fails to uphold the contribution of the Global South (Ramani, 2011). The traditional and indigenous teachings can very well bring back the local needs and necessities into the curriculum. Decolonisation of the architectural curriculum can bring us the scope or opportunity to focus the educational lens on the elements that the different societies and varied cultures of India are constituted of, making it easier for the students of architecture to comprehend what is expected from their designs by their clients.

1.5 Research Questions and Objectives

1.5.1 Research questions

Architectural education in India, can be further developed and improved. The current state of Indian architectural education highlights different problems that lead to different

questions. Some of the primary questions emerging from the problems are defined in this section.

The first one is about the role of the authoritative organisation that monitors over the architectural education and profession in India. The Council of Architecture is a statutory body constituted by the government of India under the provision of the Architect's Act, 1972, enacted by the Parliament of India, which came into force in 1972 (Council of Architecture, 2023). As a body that regulates the profession in the nation, and simultaneously plays an active role in regulating the academic standards across the national schools of architecture, the Council of Architecture has a major responsibility towards the promoting the practice of Social and Cultural Sustainability in the curricula and the profession. In what ways this may be achieved raises the question as what are the steps that the Council of Architecture has taken or is currently taking. To probe into the actions, the following must be understood.

Q1: What is the impact of Council of Architecture on Architectural Education in India with reference to Social and Cultural Sustainability?

Across the world, many schools of architecture mention the importance of Social and Cultural Sustainability in their ethos. It is often reflected in curriculum and syllabus as well. The curriculum is delivered to the students by the faculty members who are major stake holders in ensuring its scope and quality. The outline for architectural education curriculum in India has been set out by the Council of Architecture, with a scope for flexibility. Each university determines the syllabus based on this outline, and there is a scope left to academic staff to innovate. Hence, if the topic of social and cultural sustainability needs to be taught, it is very important to understand how the topic is being interpreted by the faculty members. The views of individuals change with experience. The topic thus will be interpreted by the faculty members of different age groups and from different regions in many ways. To understand this situation, it is necessary to ask the following:

Q2: Does Social and Cultural Sustainability exist in curriculum and ethos of schools of architecture globally and in India? If yes, how?

Architectural education is imparted to students predominantly by a pre-ordained model of pedagogy. Theory lessons, studio assignments, site visits, documentation, lectures and seminars are the accepted ways of imparting architectural education in India. While there are many other pedagogical models being discussed that might be instrumental, it must be investigated how the topic is being transmitted to the students for their better understanding and application, and how this transmission process can be improved. The answer to the above questions can be found by asking the following question:

Q3: How is Social and Cultural Sustainability being addressed in traditional lectures through different pedagogical concepts?

Lastly, there are several background theories that may aid in the propagation of social and cultural sustainability in architectural education in India. One such topic that is congruent and important to the colonial history of India is the decolonisation of architectural

education in India. Given the fact that most of the architectural curriculum is based on Western ideas and a Euro-centric culture, question arises whether this western culture is the reason why the Indian social and cultural identity is being overshadowed in the architectural education in India. This leads to the question whether the decolonisation of architectural education in India will direct the curriculum towards the emphasis on social and cultural sustainability. If yes, then how? This leads to the formulation of the fourth research question as follows:

Q4: How can social and cultural sustainability in architectural education in India be addressed through the approach of decolonisation of education?

These four questions lead the research work in a specific direction that will help define a clear path as to how to achieve the aim of this research, which is inclusion of the topic of Social and Cultural Sustainability in Architectural Education in India.

1.5.2 Research Objectives

Each research question leads towards an objective, which further assists to find a pathway towards achieving the research aim. The first question is about the impact that the Council of Architecture has on the educational scenario with reference to social and cultural sustainability. This question leads to the following objective:

O1: Provide a critical overview of relationship between professional practice requirements and architectural education in context of India. To achieve this objective, it is necessary to understand what the architectural academic experts have to say about this. Their ideation of the situation may explain the present circumstances and indicate possible ways to improve them.

The second question deals with the curriculum and ethos of the architectural schools of India y asking whether and to what extent the topic of social and cultural sustainability is being included in them. It also raises the same questions on the global level to determine the differences between the curriculum and ethos of architectural schools in India and globally. Therefore, the second research objective is as follows:

O2: Investigate and present a series of approaches that translate and reflect socio-cultural ethos and manifest in courses. To achieve this objective, an in-depth view of the curriculum is needed. Details about the curriculum, syllabus and how much of the ethos is being translated into them in any particular school of architecture will be investigated in detail with the academic staff as they are able to provide an insight into the above, the changes that the syllabi undergo over the period of time, and why.

The third question deals with how the topic of social and cultural sustainability is being addressed in the lessons. Whether the traditional lectures are covering it well enough, or new pedagogical concepts are needed to be included for better results. This question leads to the following objective:

O3: Examine how social and cultural sustainability topics are introduced both in studio practice and lecture courses. This examination needs to be conducted in an extensive two-part content analysis. The first content analysis will focus on the ethos and curriculum of the 100 top ranking schools of architecture around the world. This will help in understanding in what different and innovative ways the topic of social and cultural sustainability is being imbibed into the architectural academia, for the students to have a holistic comprehension of the topic. The second part of the analysis will explore the ethos and curriculum of the 100 top-ranking schools of architecture in India. By comparing the results of both analyses, a clear picture of the differences between the approaches will be identified. Identification of innovative and effective approaches may help in developing similar approaches in architectural education in India to increase awareness of the topic among the students of architecture in India.

The last question deals with the background theory of the decolonisation of architectural education in India. The topic of Social and Cultural Sustainability in Architectural Education can be addressed through many different approaches. Whether decolonisation of architectural education is one of these approaches or not is the question. This question leads to the following objective:

O4: Examine how social and cultural sustainability topics can be promoted in studio practice and lecture courses through the process of decolonisation of education. A significant amount of research has been conducted on this topic before in different countries that have their own intangible and tangible heritage based on indigenous knowledge and cultures. Sources will help to understand what processes related to the decolonisation of education may prove helpful in embedding the topic of social and cultural sustainability in architecture schools in India. The history of India, and Indian architectural education needs to be studied to understand whether any of these approaches are at all applicable or not. Altogether, a thorough meta-synthesis of data from a systematic literature review needs to be done.

1.6 Outline of Research Methodology

The chosen methodology for this research is divided into three phases. Since data is needed to be collected from varied sources, and the analysis of these data also requires different paths, a mixed method study design has been chosen. The three-phase design for this research is an Exploratory Sequential Design. The first phase will constitute of qualitative data collection and analysis. In this phase data will be collected from the existing literature. Background theories that may be applicable for the research will also be discovered, and a thorough meta-synthesis of collected data will be undertaken. Following this, the ethos and curriculum of the 100 top-ranking schools of architecture around the world, and the 100 top-ranking architecture schools of India will be studied. A detailed content analysis will follow. This will lead to the second phase of the research.

The second phase of the research is to identify the features for testing. From the first phase, the path will be chosen, which is to be followed in the third phase. The gaps underlying the

present situation of architectural pedagogy in India will be noted, and new approaches will be devised to inspect these gaps further, to reach the root cause of the problem.

The third phase comprises of the qualitative and quantitative data analysis. Interview questions and survey questionnaires will be designed based on the data that has been previously analysed. The data collected from these surveys and interviews will be further analysed with the help of analysis tools, and the results will be interpreted. The sample size for the survey will be between 150 and 200. The survey will target the faculty members from the different regions of India, spread out into different age groups to get a holistic idea of how the architectural education has evolved over the time, and how faculty members translate the topic of Social and Cultural Sustainability in Architectural Education. The questions will be close ended.

For the interviews, the method of snowball sampling will be used. The sample size for the interviews will be between 15 and 20. The target for this part of research are the experts from the different spheres of Indian architectural expertise such as academician, veteran practitioners, heads of government departments that deals with public space design, and post holders in the Council of Architecture, who are stakeholders in the given situation. They will be invited to take part in this research. The questions will remain open ended, with probes that will lead the respondent towards the topic, if they may divert.

1.7 Scope and Limitations of Research

The topic of social and cultural sustainability encompasses a large variety of data and knowledge with respect to India. India being a vast country, with a plethora of societal ranges and equally varied range of culture and cultural backdrops, cannot be mapped in a single line on the graph of social and cultural sustainability. Apart from the fact that the cultural and societal boundaries are blurred, the regional differences within the country are also very varied. These differences are vividly reflected in the architectural styles. Spaces, both public and private, are made for the people inhabiting them. To understand these people for whom the designs are made, the architect must be aware of much more than mere building materials and construction techniques.

The scope of this research thus encompasses this variety of knowledge and the people who are involved in imparting this knowledge. To understand the present condition of architectural education of India, a knowledge about the differences between architectural education globally and in India must be attained. Surveys will be conducted to get an insight into the ethos and curriculum of top-ranking schools abroad, and in India. Interviews with experts in different spheres of architecture, practitioners, academicians, heads of institutions, officials from Council of Architecture and veteran architects will be undertaken. Surveys of faculty members of architecture schools across India will be undertaken to understand how social and cultural sustainability may be represented in the different regions, based on the difference in the cultural and social context. The analysis will lead towards suitable approaches that can be incorporated in the architectural pedagogy of India, for better introduction and initiation of the topic of social and cultural sustainability. Similar research methodology can be applied to obtain results for similar study in any nation

that has the history of colonisation around the world, specifically the countries from the Indian subcontinent, like Nepal, Bhutan, Pakistan, Bangladesh, Myanmar and Sri Lanka, as they share their historical roots with India.

Limitations of this research are that, since it requires data from many different people, in different spheres of work related to architectural pedagogy and from different parts of India, the research will be time consuming. As the research work continues during the onset of the Covid-19 pandemic, all interviews and primary data collection will be conducted remotely. Information about ethos, curricula and student output from different schools of architecture around the world, and in India will be obtained from their official websites. It may not be possible to obtain statements regarding the obtained information from school authority or faculty members. There are no risks that may be identified for any of the participants of the research.

1.8 Novelty of Research

Architectural pedagogy has come a long way in India. It has seen many different eras and styles of architecture and accordingly the styles of teaching have also changed over the time. The current situation in Indian architecture has its limelight on sustainability. The spheres of social and cultural sustainability are yet to be explored thoroughly in the field of architectural pedagogy.

The novelty of this research is that it will help identify the related gaps in the architectural education in India. This research will bring forth the words and opinions of faculty members all around the nation and of the experts in architectural pedagogy and practice. It will identify new approaches that will enable imbibing the topic of social and cultural sustainability in the mainstream architectural pedagogy.

In future, these approaches may also be used in other countries of the Global South, specifically in the Indian sub-continent, as the social and cultural variances in all these countries are more or less similar to that of India. Altogether, this research will bring forth a new era in architectural education, where the students of architecture will gain not only technological knowledge, but also the empathetic knowledge related to the understanding of the social and cultural views of their clients and users of the spaces that they will design. A space is defined more by its use than by its shape, texture and colour. Once the architects and designers realise and comprehend the potential of a space through the lens of social and cultural sustainability, it will help create spaces that will be inclusive, safe, and will hold the potential for further development.

Chapter 2: Approaches in Architectural Education over Time

The chapter begins with an introduction of the seventeen sustainability development goals set by the United Nations. As mentioned in Chapter 1, eight of these seventeen goals are achievable through channelled architectural resources, backed by architectural education, with a focus on the topic of social and cultural sustainability. The evolution of global architectural education, social and cultural sustainability and their inter relationship will be explored. The eminence of social and cultural sustainability among the three pillars of sustainability and the need of including it in the architectural education curriculum will be stated. The current scenario of global architectural education in terms of inclusion of the topic and how it is being taught to the students will be detailed. The evolution of architectural education will be analysed through the lens of Social and Cultural Sustainability and the dominant cultures. Innovative approaches will be investigated. Whether there is a need for a transformation of Architectural Education will be discussed at the end of the chapter. The objective of this chapter is to detail how the architectural education has evolved over the time and why it needs to evolve further by the inclusion of Social and Cultural Sustainability in its curriculum. This chapter leads to the discussion of the trends in architectural education globally and in India.

2.1 Introduction

The Literature Review is an attempt to encompass the different topics that comprise the background theories, leading to the topic of Social and Cultural Sustainability in Architectural Education in India. Evolution of global architectural education has occurred depending on the social and cultural history of the different geographic areas around the world. Comprehension of the architectural education system thus needs a study of the different elements that have affected it, shaped it, and may further influence it in future. Fig. 1 presents a theoretical framework which enumerates the different stages of the evolution of architectural education worldwide and concomitantly in India, and how the subjects of need have gained prominence over time. It also discusses the background theory, and the expert narratives and doctrines that focuses on the need for the social and cultural sustainability as an important subject in the undergraduate architectural curriculum.

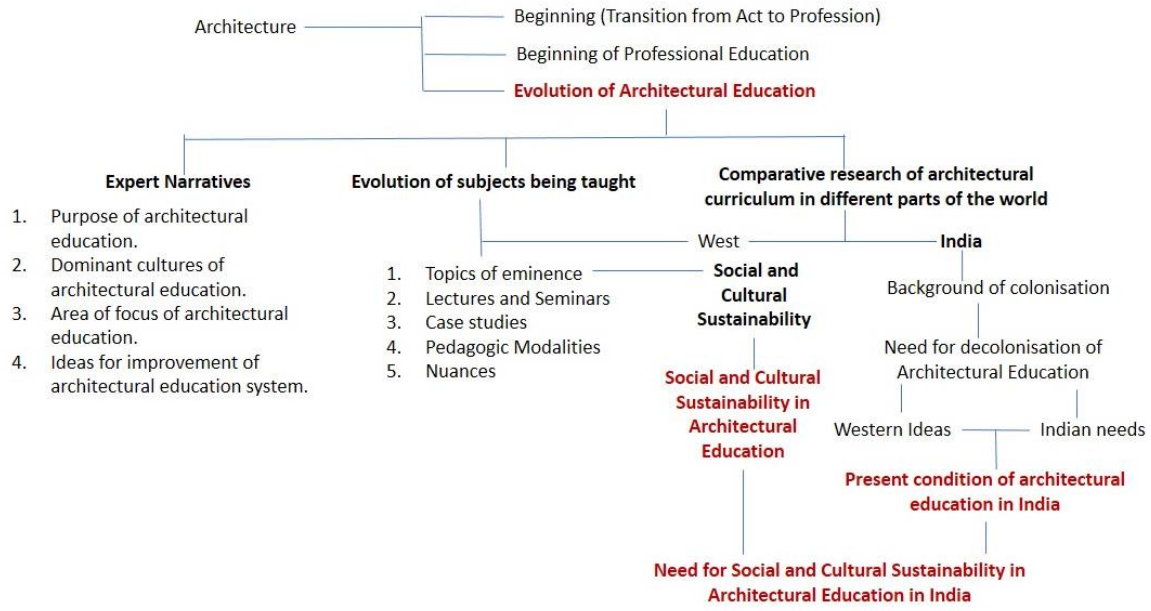


Figure 2.1 – Conceptual chart of the Theoretical framework of Literature Review.

2.2 Architecture – Problems Associated with the Global Practice

The beginning of profession of architecture was not in its current form. Building a shelter was a necessity, and slowly, people segregated the occupational positions of the people involved in the process. In the earlier years, there was no differentiation between the workers of the buildings and the architects. In the medieval times, the mason who carved the stones was considered the builder of the cathedral as the architect who designed it. This changed in the Renaissance period. In that period, the purity of the designing mind was set apart and above the labour of building (Kostof, 1989).

Previously, architects did not work for clients, they worked under the patronage of the kings, emperors, and the royals. They could build something for themselves to avoid patronage. Otherwise, they were building for the city as their patron, like in the case of Parthenon, where the architect was employed by the entire Athens (Kostof, 1989).

According to early architectural critics, there are two kinds of architecture. One that was practised before the 16th century, and the one that has been practised since then. The former belonged to the true styles of architecture and the latter belonged to the imitative or copying styles. The classic and medieval styles erupted from the need or the current civic or monastic lifestyles, tending to the needs of the users. The styles that came up later, like Renaissance style, are much more imitative, and pay much more heed to aesthetics than to functionality, or the needs of the user. They are more academic in nature and lack the practicality of the present needs (Scott, 1914). What used to be a direct hand on material practice, slowly took the form of drawings, and plans and models, and grew into an elaborate process. The art of making the drawings and models, as known today is about a 300-year-old process. It was developed over time, to answer the demand for modernity, during the Renaissance period (Mehta, 2020). As this process came into existence, the

traditional form of knowledge transfer for the architects also experienced change. The need for cerebral education replaced the traditional apprenticeship process, making the journey of becoming an architect swifter and more linear (Mehta, 2020).

In the early days, books about architecture spoke about a single building and were mostly written by non-architects. *De Architectura* by Vitruvius was different from them. It was the first book that was written by a practitioner and spoke about the different architectural principles, the role of education, the duties of an architect and the role of the clients. He had written it as a reaction when he had noticed the low rung taken by the architects in the society. Vitruvius advocated for the education of the architects, as a well-established architect is supposed to be properly educated. He had elevated himself as an ideal architect in his treatise, and repetitively emphasised on his own broad level of education and named a few of his famous contemporaries that he had met (Favro, 1989, pp. 19).

He advocated for on-field experience of the architect along with theoretical knowledge. On site, the architect must interact with workmen, masons, slaves and plumbers. Vitruvius did not consider them as the appropriate architect's people. He was more comfortable with aristocrats in salons and meeting rooms. He also relied on revered Greek texts to identify the topics of importance for architects like the optical studies of the Hellenistic researchers. By reading his books, the reader would be guided to the conclusion that perspective of the viewer is more important than the use of the building (Favro, 1989).

The balance between the importance of education and practice for an architect, thus kept shifting in the former days. The balance between the importance of aesthetics and function had the same fate. When education of architects became further mainstreamed, social studies were brought into the curriculum, so that the perspective of the people could be projected on the mind of the architect. The building work stops the moment the user enters the house and starts using it, whereas, it should be the opposite, and according to use, the space should grow and mould. The people were given power to pull down what was not needed and build what was needed. They became the ultimate stakeholders without whom, the architects had no business practising their art (Kostof, 1989). Yet, until the advent of environmental sociology and psychology in the twentieth century, few architectural writers overtly explored theories of human nature and motivation in relation to architecture. These topics were not explored by the pre-modern architectural theorists (Favro, 1989).

2.3 Evolution of Architectural Education

The next paragraphs briefly discuss the issue of evolution of architectural education with reference to the thesis topic 'Social and Cultural Sustainability in Architectural Education in India'. Architects need to understand that human identity is a part of architecture and this identity usually includes those of the architect, the clients, the users and the building itself. The human nature changes from place to place, time to time and person to person. It may even change within the lifespan of one person owing to cultural context (Juhasz, 1989). The present circumstance is where the modern movement of architecture and its failure are being widely discussed. The architects fail to understand the needs of the clients, and to create meaningful buildings. The cause for such conditions is their ignorance and

unwillingness to understand the codes of culture that exist, and that they should work in accordance with. The dissatisfaction of the users is well pronounced, as the buildings fail to achieve their purpose (Amendola, 1989).

For many years, the architects have used architecture as a way of expressing their inner artists, solely concentrating on the aesthetics of the creation, treating it like a piece of art, concomitantly ignoring the users and their needs. The architects do not commit to the social responsibility that they bear, while dealing with the creation of spaces. The reason for this problem can be traced back to the architectural education system. According to an expert, the key negative aspect of the contemporary culture of design pedagogy is that the topics talked about in lectures and classes pertain to theory, which often leave gaps between them, or are not related to the practical world. This creates a gap in the knowledge and the students are never thoroughly prepared for the real-world problems. Due to this gap in knowledge students cannot provide solutions to problems at hand, even after they get their degrees to become practising architects (Salama, 2015).

The students are solely evaluated on their ability to reproduce what they have been told about in lectures and discussions, instead of their ability of problem solving, finding solutions and being innovative in the approach. Thus, the emphasis shifts from finding the solution to real life issues to assignments and projects dealing with hypothetical situations. In most cases, one part of the lesson taught is not related to the next part and that makes it difficult for the students to relate to the topic as a whole. They perceive lessons as assimilations of different ideas. The architecture students, and later, as professional architects, they emphasise abstract aesthetics and forms but ignore the main problems of ecology, social sciences, and the socio-political and socio-economic aspects (Salama, 2015).

2.4 Purpose of Social and Cultural Sustainability in Architectural Education

A teacher needs to accept the social and political responsibility of their position as a mentor. They should not be biased or reactionary towards the social and political conditions about which they are teaching (Dutton, 1991). They must move away from the stern belief of architecture being nothing else but pure art. Some researchers believe that schools of architecture around the world, seem to carry forward the same belief. Professionals with such beliefs do not extend their thoughts to the social responsibilities of the profession. Unfortunately, people who believe the opposite notion and extends their expertise to be a catalyst towards the social betterment, often fail to understand the economic and technical constraints. As a result, architecture either loses it specificity as a professional discipline or it loses the credibility and social responsibility (Salama, 2000).

Today, globally, there is an emerging concern about sustainability. Social and cultural sustainability could be introduced in a design by provision of interactive spaces and supportive environments that not only ensures the privacy of the users, but also holds up their identity (Al-Jokhander and Jabi, 2016). Despite the emerging global concern about sustainability, somehow it is not being related to building practices. Unsustainable urban growth has been recognised as an important challenge, but the scientific research regarding sustainability is mostly related to the global-molecular level and techno-scientific fixes, and

tends to skip the multidimensional role of design in the built environment (Khan, Vandevyvere and Allacker, 2013).

Considering sustainability is, however, not one specific performance aspect, but rather an intrinsic value of a building or an urban area. The incorporation of sustainability aspects throughout other courses and design studios would be crucial to a sustainable architecture curriculum. Inter-disciplinary thinking is crucial for students to understand the concept of sustainable building. Trans-disciplinary approach also helps, as knowing sustainable construction techniques provides a disciplinary base, whereas defending one's ideas in front of peers having different ideas bring about a deepened insight and informed action. Educating students about sustainability in design cannot be complete unless the educators are re-educated. Regular meetings and seminars where teachers, researchers and academicians come forward and discuss their ideas and understanding of the topic will facilitate dialogue and will help them to make a real contribution to design education (Khan, Vandevyver and Allacker, 2013).

Among the three pillars of sustainable development, socio-cultural sustainability is perhaps the least explored within mainstream development literature (Ahmed, 2011). The following paragraphs briefly explain the meaning of the key phrase 'Social sustainability' with reference to the thesis topic 'Social and Cultural Sustainability in Architectural Education in India'. The main concept of social sustainability is people oriented and refers to maintaining and improving the well-being of people in the current and the future generations. Responsiveness to the users' needs and quality of life plays an important role in the achievement of social and cultural sustainability. To achieve that in space, no rigid guidelines need to be followed, but some principles can be maintained in accordance with the character of the spaces. The principles are:

1. Responsiveness to social needs
2. Responsiveness to cultural values
3. Quality of life
4. Adaptability
5. Safety
6. Security
7. Participation
8. Accessibility.

There are substantial overlaps between both social and cultural sustainability as they are difficult to separate and are often considered together. However, both have their respective differences and distinctive areas of concern. Social dimensions may not be tangible and include levels of social cohesion, social stability, social equality, social equity, social conflict, social inclusion and so on. While those of culture, including arts, music, performing arts, literature and religion, maybe more tangible (Ahmed, 2011). Social sustainability has two attributes. The first one is that the social norms are equated with the economic norms. The activities to succeed in environment, and remain socially sustainable, must support the social customs and values and the economic structures. The second one is that the activities

occurring between the present and the future generations must be socially valued and may be sustainably distributed (Memmott and Keys, 2015).

The connection between culture and social sustainability becomes more intimate when social sustainability talks about the well-being of people of the present and the future generations and the up keeping of that well-being. People around the world have been brought up with and believe in different cultural systems. As culture is slowly becoming an important part of the social sustainability movement, these differences must be kept in mind while working in cross-cultural areas (Memmott and Keys, 2015).

2.5 Dominant Cultures in Architectural Education

Architects, as shaped by their education system that promotes and upholds novelties have a difficult time coordinating with their clients who have a pre-set idea of what is 'normal' in architecture and their expectations, as shaped by their cultures over the years. If architecture is to make a positive contribution to cultural politics, and if architects are to make projects which are critically acute and socially aware, then it can only come about through deliberate appreciations of the cultural dimensions of architecture: by studying how architecture works and what it does (Sharr, 2012).

The architects need to look beyond the concepts and aesthetics and understand how a building is the best indicator of its own intellectual position. A building mirrors its position in time and society through its organisation, atmosphere and details, it embodies the ideologies involved in its inhabitation, construction, procurement and design. Architecture is a cultural artefact, based on the culture of the designer and the users. Without proper knowledge about the culture and social background of the users, the architects may create a built environment based on ethnocentric design, a good fit according to their own cultures, however a misfit or a bad fit for the cultures of the user group, which may result in the users being unwilling to enter the built environment or may not be comfortable in it.

Social production in architecture means a design which has been designed by many, for many. People from different backgrounds like architecture, urban planning, art and geography come together to work on projects that foster cultural and social networks creating new kind of public spaces, enabling more equitable access to resources. The emphasis needs to be shifted from the objective of beautifying the spaces, towards making them more useful for the larger society, for social interactions and relations, which can later be reproduced and multiplied to serve the larger mass (Schneider, 2017). Social architecture calls for participation of the users in shaping the spaces that they will use, but it is more of an emancipatory approach where they will work with the architects, and exercise their material rights of space, work and materials. It will not only influence the space, form, surface, style and structure but also upon the ecological, economic, collaborative and procedural aspects of making space (Petrescu and Trogal, 2017). The inclusion of social and cultural values in natural resource management and planning requires both improved knowledge and a collaborative learning process among stakeholders (Bouwen and Taillieu, 2004).

Architecture that considers the cultural background, beliefs and practices of the users, makes it easier for the users to interact with their physical environment, and thus help in reducing the environmental stress. If the architecture of the living space does not fit to the cultural belief of the users, it may result in severe psychological stress for the users. The interest in culture has incorporated a growing recognition that 'needs' are different between different groups of people. Needs are now understood to be met not only socially but also culturally with culture being viewed as the 'glue that binds together all other concerns' (Ratna, Rana, and Piracha, 2007 in Memmott and Keys, 2015). A good fit between an architectural edifice and a user will result in a certain well-being experienced by the user, and thereby contribute to a form of culturally sustainable architecture (Memmott and Keys, 2015). It will have the contribution from the user in form of their experiential knowledge, their cultural background, and their ideas, which may bring forth a holistic approach, when mixed with the professional expertise of the architect working on the project.

2.6 Cultural Sustainability and Architectural Education

2.6.1 Different parts of culture and cultural sustainability

The following paragraph briefly explains the meaning of the key phrase 'Cultural Sustainability' with reference to the thesis topic 'Social and Cultural Sustainability in Architectural Education in India'. Cultural sustainability was first mentioned in 1995, when the World Commission on Culture and Development (WCCD), building on the SD discourse, defined cultural sustainability as inter- and intra-generational access to cultural resources (World Commission on Culture and Development, 1995). Cultural heritage has been defined by The Encyclopedia of World Problems & Human Potential (no date) as:

"The entire corpus of material signs- either artistic or symbolic- handed on by the past to each culture and, Cultural ustainability and Architectural educationtherefore, to the whole of mankind".

Tangible parts of culture include monuments of architectural, sculptural, painted and archaeological nature and human made landscapes (UNESCO World Heritage Convention, no date). While according to UNESCO Institute of Statistics (2003) intangible cultural heritage includes "practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognise as part of their cultural heritage".

2.6.2 Relation between culture, space and architecture

Culture is a cohesive agent for different communities, and a resource of identity. It is a powerful resource that can transform societies and is a natural driver of innovation (UNESCO, 2022). Architecture has the power to dictate human interaction within it. There are spaces with a sense of belonging, and there are other spaces, which do not feel the same. Architects make use of this knowledge to design spaces, through which the entire society can be aware of a story (Pelletier, 2012). Culture is built slowly, with the inputs of the people and societies living in it. In present times, the perception of culture has changed.

In relation to the professional field of architecture, cultural differences began to be clearly recognized and explored from the 1970s within the multi-disciplinary field of people-environment studies (then more commonly known as man-environment studies in which a small but eminent number of architectural researchers participated (e.g. – Amos Rapoport, Paul Oliver and Ross Thornell). Within the field of people-environment studies, culture is considered to be a fundamentally important influence on the design, experience and understanding of architectural urban spaces because living environments and settlements typically reflects and reinforce the behaviours and values for which they were built to suit. As noticed historically, function and expression have always been in harmony in architecture. Only in recent times the expressionism has taken a toll over the functionalism of a building, making the users feel disoriented (Pelletier, 2012).

Architecture is like the identity of a culture. An art form of a culture cannot be a combination of elements of other cultures. Similarly, architecture's sole purpose is to develop the value of a particular culture through itself. Architectural continuity leads to cultural continuity. The continuity of life and architecture leads to standardization and coordination. The relationship between architecture and culture can be explained through the relationship between space and culture. Space and culture both have influence on people's perception of themselves. Space plays an important role in strengthening cultural change, because change in the behavioural pattern in a certain space reflects to specific cultural values. This change in the mental space influences the organization of the physical space, thus architecture is influenced. Different ideas of architecture come into existence due to the cultural transformation, which brings about new ideas, concepts and theories. The art of architecture is one of the most important expressions and characteristics of each nation and historical period and represents human's-built environments with respect to particular time periods. The nations which understand the architectural needs of their communities and know the time and space of their communities, seem to be more successful than others (Ettehad, Azeri and Kari, 2014).

2.6.3 Effect of globalisation on architecture and culture study

With the advent of multi-national architectural firms, the architectural design seems distant from the essence of the place where the building is built, or from the local people and their cultures. The meanings associated with the buildings are of global stature, due to the interference of the global companies, and the local meanings are tended to be given as a part of architectural functions instead of being in the inherent character of the building. The international strength of the disciplinary culture of architecture, with a small number of 'superstar' architects working concurrently in different parts of the world, dominates local context (Adam, 2012).

For a cultural image with the prime concerns being place, people and cultural sustainability, the aesthetics has to be highly contextual with forms, materials and construction methods which reflect the local vernacular. The approach for that is to study the local sculptures and buildings, emphasize local involvement and local expertise. Ultimately, a building can only be fully understood by being a part of the community that builds it (and perhaps not even

then). Thus, a building cannot be designed to fully reflect a regional culture which is not shared by the designers. The ideas and opinions of the stakeholders, the government, the politicians, the people working in the area and the people who have grown up in the area with their own sentimental values, influence the design solution.

At a time of uncontrolled globalisation in which sense of place, history and cultural distinctiveness is constantly under attack and many cities lack socially inclusive and responsive environments, contemporary approaches integrative of social-cultural dimensions are questionable (Oktay, 2012). Globalisation is a rising issue all over the world, and the architects take it very seriously when it comes to making their designs global. However, in this process of modernisation, they undermine the local culture and flavours that should form the basic fabric of the designs. Modernisation is taking over local identity, as architects move towards a global identity for their design. They forget to contribute their own cultural knowledge into what they produce. There needs to be a healthy balance between the modernisation and the cultural contribution, to maintain a sustainable approach. As Rapoport says, it is impossible to witness the complete survival of a culture, or its complete replacement by the contemporary system, as in the former case, it will lead to 'fossilization' of the culture, and in the latter case, that would lead to the disappearance of cultural groups (Rapoport, 1995 in Hegvold, 1999).

2.6.4 Need for culture study in architectural education

A discussion on cross-cultural issues can become quite complex and esoteric, particularly when related to the role of architecture in retention of cultural identity. Today buildings are becoming extremely homogeneous, losing the local culture and identity, and rendering the cities aesthetically anonymous. It is therefore essential that the study of culture form a part of architectural education. Architecture, however, is a material expression of culture, which is dealt with in terms of symbolically suitable, climatically responsive, ecologically sound, socially sustainable and culturally sensitive outcomes (Edholm, no date). The idea of culture and its importance in creating design in architecture can be best explained to students by exposing them to projects that need a study of a culture that is alien to them, to understand the design problems. Once they understand the different culture and the need for it to be implemented in the design problem, it becomes imprinted in their minds, and they follow similar procedures of observing and incorporating the cultural details even when they are working on projects that pertain to their own cultures (Rapoport, 2005). The students of architecture must respect their own culture and learn from their own built heritage. Tradition also means stagnation; thus, culture should continuously keep evolving and moving forward.

2.6.5 Techniques of teaching cultural aspects in architectural education

Cultural aspects can be taught through a variety of techniques. The architect could be involved in role-playing, to bring attention to the cultural matters, they could do in-depth library research. They could go and live with the people to get first-hand experience of the culture, or do field research where they conduct interviews, observe and seek to understand the depths of a culture. They could seek information about a particular aspect

of a culture like the world views, customs, traditions, etc., questioning how the cultural values are embedded into the design and permeate through it, and then use the information to design for the community. Cultural design can be incorporated in three different ways, which are mentioned as follows:

1. Culture congruent – if they harmonize well with the culture.
2. Culturally appropriate – where the design fits well with the culture.
3. Culture supportive – where the design enables the culture in its views, trends and practices.

All three of these can be incorporated in design, if the design is meant to be culture supportive (Schim and Doorenbos, 2010). Some more salient features of such teaching are to make the student culturally imaginative, where they imagine being a part of the culture, understand the norms and then design for a community, or they understand the cost of not designing according to the cultural norms and needs, and recognising the need of deep and thorough cultural study. Teaching students about this complex subject is difficult as the time is short, and because there is the major contemporary problem that the theorists and the students are mostly from different cultures (Hegvold, 1999).

The staff should also be culture sensitive to pass the idea to the students. It is taken for granted that architects and professionals will use the Eurocentric ideas and modules in design to bring out modern edifices, but the aim should be to create graduates who understand the importance of cultural significance, and may imbibe it in design adequately, where it is needed, thus bringing out solutions that are climatically appropriate and material wise suitable to a place, and most importantly, serves the local culture (Hegvold, 1999). The International Union of Architects (2008) identified that one of the main two goals of architectural education is to generate intellectual maturity, ecological sensitivity as well as social responsibility among citizens. It is important for the future architects to be aware of the impact of their thoughts and actions, on the future of their surrounding environment and community (Shari and Jaafar, 2006).

2.6.6 Resistance to the inclusion of cultural sustainability in architectural education

The inclusion of sustainability into the curriculum has been identified as important, however it faces several resistances from the teaching methods and the education system. It has been said that the curriculum is too full to introduce new. Others have argued that the topics are better suited to the master's course, rather than the core degree. Other resistance comes in the form of the notion that sustainability is a topic of concern only for the developed countries. Developing and underdeveloped countries have their main concern as development, and the topic of sustainability will only drive up the cost (El-Feki and Kenawy, 2018). Architectural education is often trapped in between architectural genres of specific territorial conditions and trans-local conflicts with form-concept relations that conservatively contribute to the syllabus and design studio programs. Therefore, it always requires two processes: first, to decolonize architectural knowledge from a certain hegemonic territorial condition to which that institutionalization process is attached, and

second, to create a transversal methodology that goes beyond form and concept in design (Tan, 2017).

2.7 Different Pedagogic Approaches in Architectural Education

Methods must be implemented, where the students will be able to retain the information that is given to them regarding the socio-behavioural aspects, and then apply that knowledge later into their design work. In lecture classes, an average student can remain attentive for a stretch of 10 minutes, whereas the lecture class time varies from 50 minutes to as long as 2 hours. In such cases it is difficult to attain the attention of the students. Though some students learn well from listening in class, other students mostly learn well from experiential learning. Thus, a simple way to keep the students attentive, as well as make them retain the information being taught in the class, is to introduce exercises, where they get some visual aspects, which they judge by their own experiential ideas, and cultural memories (Salama, 2008). People-environment paradigm can be introduced in the regular curriculum of architects as Environment-Behaviour Studies (EBS). Students will learn the importance of cultural diversity, sub-cultural lifestyles which are different from their own, and the latent functions and different building types through the behaviour of their users, through the methods of questionnaire designing, observation and behaviour mapping (Shehayeb and Sherif, 2008 in Turgut, Salama and Kellett, 2009).

Architectural education has always followed a curriculum based on storytelling. The students are taught to stand next to sheets filled with visual representations and say a sincere story that brings out the sense in them. The main objective of architectural story telling is to make one realise that its main role is to make one's life happy and comfortable. It involves developing a connection between one's past experiences and those of the others. The trend is changing, as students and professionals choose to present their design through slides where the consecutive slide annuls the previous one. In this way, they are not making the audience think in the boundaries of architecture but are steering them to merely think about architecture (Frascari, 2012). To produce designs which have social and cultural relevance, and connect with the audience and the users, the students need to relate to suitable models in an appropriate educational framework (Hegvold, 1999).

Architecture is predominantly seen as an expression of culture (Mahgoub, 2007). The diversities of culture, when brought together overlap each other to form a complete picture, where one cannot completely distinguish between them. This overlapping has brought about new changes in architectural teaching styles, where teachers are considering new cultural perspectives while teaching. This however does not change the conventional inter relationship between architecture and culture. To understand culture and how it has affected the architecture of an area, a travelling narrative is needed. Students should travel to the different places that have different cultures and varied types of architectural monuments and perceive first-hand how the local culture has influenced the architectural style (Akkach, 2002). In professional design education, there is no fixed modality. It varies and requires continual innovation. The modalities that tend to be on the middle ground, inclusive of different approaches, are known to be more effective in nature (Rowe, 2002).

2.8 Needs for Transforming Architectural Education

In experiments carried out regarding architectural education in schools, non-traditional subjects were introduced pertaining to two domains, the environmental/ecological domain and the sustainability domain. The contact hours and weightage of each of these domains were calculated thereafter. The study proved that academic institutions and organisations should be well involved in propagating architectural education with respect to sustainability (Martinez-Ventura et al, 2021). The concept of sustainability, with its emphasis on the ecology has presented itself as a challenge to both the developed and the developing countries. In this kind of development, socio-economic practices are set by the nature's limitations. Thus, it is based on the principles of self-reliance, fulfilment of the basic needs and an emphasis on the quality of life. The objective of sustainability is to intentionally build a society that brings about a symbiosis between the urban and natural processes. The shortcomings of contemporary building and lifestyle is supposed to be overcome, and the ways of building that will contribute towards the ecology in a positive manner should be reintroduced (Salama, 2002).

Students of architecture have to be made aware that they are to involve ecological, engineering, socio-political and economic considerations in their design parameters and proposals. Current problems demand more than a purely 'technical' or a mere 'architectural' solution. They require a trans-disciplinary approach which takes into accounts issues such as landscaping, and social as well as political parameters. Any curricular reform in any of these disciplines should aim at:

1. Global, rather than local as well as long term rather than short term problem definition.
2. Learning how to identify and to articulate specific needs for inter-disciplinarity related to a particular problem.
3. Creating project-related platforms where such inter-disciplinarity can be practised (Meiss, 2002).

The conventional teaching approach needs to be changed to introduce proper experiential learning into the curriculum. Teachers should move beyond the textbook learning process and teach the students the difference of learning about and learning from the built environment. Over the past two decades, almost every country in the world has undergone some reform in the form of architectural curriculum. However, the new ideas are introduced to the teachers in the traditional approaches, which is not helpful for the professional development of the teachers (Girvan, Conneely and Tangney, 2016).

There is a need to shift from standard printed literature, and give chances to students to understand, observe and explore issues in real life, that will help them to recognise relevant from irrelevant information. Lectures and exercises should be designed that will enable students to develop abilities to understand the component and features of the built environment and their relationships with people. Exercises are to be designed in a hierarchy that will shift from observing to interpreting to understanding (Badrinarayanan, 2016). The inter-relationship between culture and built environment, and its impact on societal needs

and physical contexts are emphasised on by subjects like 'Human Factors in Design', which focuses on visual experience from place to place and at time to time. The lectures are designed to include the topics like culture, physical environment, design, creativity, architecture and the design process, building types and their spatial environment, perceptual concepts and design fundamentals (Eldeen, 2002).

Trans-disciplinary learning, though might seem unrelated at times, may act as the driving force of design thinking. However, assembling everything still relies inevitably on the craft of the maker, who may in turn encounter other levels of possible refinement. Introduction of vertical studios can be useful in studio learning for students. Vertical studios have students from advanced levels working with the juniors on design topics, at the basic level, not going into complexities until basic commands of conceptual and orchestration skills were understood and demonstrated (Williams, 2009). This type of learning would give the students a chance of exchange of ideas and discussions on the same project, which would widen their perspectives towards the design, and the potential difficulties will turn into virtues. Here the peculiarities of design would rather be treated as a counterbalance for the more rigid knowledge-based coursework (Peterson and Tober, 2014). The teachers must also translate their insights and ideas into the curriculum when and where necessary, as it is vital for critical awareness, as explained in section 1.3.1.

Architecture, when taught in studios that are isolated from the real world outside, remains incomplete (Jarrett, 2000). The students need to know the surrounding world and the real problems in it to design spaces that will help solve those problems. Isolating design programmers from everyday life also excludes a world rich in colour, behaviour and circumstance, and establishes several blind spots in the design studio environment. According to Jarrett (2000):

- It can lead to 'studio seclusion', autonomy and narrow-minded thinking.
- It can reinforce the production of 'objects and signatures'.
- It breeds abstraction and the propensity for the program to be pure, hypothetical and out of date.
- It supports the premise of the 'expert', detaching the student from the very forces that induce life in the spaces.

Architectural education, the key transmitter of the 'culture' of architecture, not only imparts objectified rational knowledge in the form of calculations and techniques, but also transmits less obvious social practices in the form of confessional critiques, design tutorials and intense studio culture (Milliner, 2000). Group discussions form an important part of the studio culture. Group discussion extends and amplifies the potential of reflection for learning. Group learning could serve as an important vehicle for the initial development of the attitudes, communication and team working skills regarded as so important for the architectural practice (Nicol and Pillling, 2000). Through this, the students of architecture will develop skills to handle different kind of situations with clients, regarding their needs, and the needs of the project.

Students will understand, the variations that they need to deal with in the professional world. User issues are fundamental to the making of architecture. The sites and design problems should be chosen as such, that the students are bound to consider and analyse the social, cultural and traditional aspects of the project. The students who have always worked on a site with several characters, are not ready to work on real life sites which lack such characters and have bland neighbourhoods (as mentioned in section 1.3.1). Faulty designs are an outcome of partial analysis, or overreliance on the traditional analytical, supposedly objective methods of analysis. Students need to develop a deeper understanding of the user context of the design problem, where they will carry out their analysis while being inclusive to the perception of others involved in the project as stakeholders (Morrow, 2000).

The students of architecture today are being taught to focus on the aesthetic value of their designs, which are based on concepts. Historically, concepts have been linked to a search of inspiration (Aspelund, 2006 in Shah and Shaari, 2018), with designers searching and finding inspiration in areas such as nature (Victor Horta), geometry (Charles Rennie Mackintosh), history (John Adams), the site (Frank Lloyd Wright), the project's use/ mission (Norman Foster), etc. In late 20th century, art and theory have also guided the design ideas of architects like Steven Hall and Peter Eiseman. Designs that are thoroughly based on art concepts seem to focus on the artistic features much more than the social-cultural client needs. Therefore, the concept development needs to undergo a disciplinary definition which differentiates it from arts and brings it closer to the current issues. The teaching of concept is an individual effort as each teacher does it in their own way. While curriculum is not devised from the context of concept designing and teaching, there is another major issue as to how to teach conceptual designing to the students of different levels (Hadjiyanni, 2008).

Knowledge about the everyday environment needs to be taught to the students. How it is structured, what can be learnt from the historic and contemporary evidence, how different examples compare, how it behaves over time and responds to change of inhabitation or other circumstances. Teaching architecture without teaching how everyday environment works is like teaching medical students the art of healing without telling them how the human body functions. Knowledge of everyday environment must legitimize the profession (Habraken, 2003 in Salama, 2005).

Students having the practice of memorizing theoretical knowledge over years, have difficulty in interpreting their surrounding built environment into practical and innovative design fundamentals. The theories associated with the design problem should be explained during the practical work, and not separately, so that the students can relate it to the problems and find adequate solutions. The Bauhaus teaching theory was designed in a way where the master was the passive guide to the student who innovated his own design solution, unlike in Ecole des- Beaux Arts Architectural school education style which promoted classical architecture imitations in design. In 20th and 21st century, several ideas like De Stijl, Bauhaus, purism, and Functionalism have come to be used based on the needs of a small group of people. Functionalism is still taught in architectural education today, as it

caters to need of its users, but that is not enough for a socially sustainable architecture (Danaci, 2015).

2.9 Conclusion

People, over the time have established knowledge that they gather throughout their life by aggregating their cultural, physical, social and emotional experience. This established knowledge changes from person to person as their social and cultural backgrounds change (Fenster and Kulka, 2016). Architecture is a profession where architects create the space for humans to live and work in. Varying from residences to commercial spaces, recreational spaces, educational or hospitality, medical or correctional, each space must correctly and efficiently cater to the need of the users. To achieve this efficiency, the professional architect must be personally aware of the discursive social and cultural backgrounds of the users along with the basic architectural knowledge to create the perfect space.

Over the years the curriculum of architectural education has seen major changes, both in procedures and in the subjects being taught. Across the world schools of architecture have grown, teaching new techniques and doctrines to students, and concomitantly developing a culture of their own, where the architects find artistic catharsis in their designs (Girvan, Conneely and Tangney, 2016). Architectural trends set in, later replaced by newer trends, where year after year the architects created spaces which concentrated on the aesthetics, while the needs of the users became secondary. Even if the needs of the users were considered, the architects viewed them from a different perspective, through the lens of a creator, rather than that of the user. Social and cultural backgrounds remained ignored and this culture needs to be abolished (Dam and Siang, 2022).

One of the main reasons for this ignorance for social and cultural needs might be the major gap between the theories taught and the practical design assignments given in the schools of architecture. The students do not get a chance to apply the taught theories in their designs, leaving them unprepared for the practical world (Badrinarayanan, 2016). They are expected to learn the theories and regurgitate them in the exams. Their problem-solving abilities are not nurtured, they remain ignorant to the importance of the social sciences, the cultural studies, the socio-economic and the socio-political aspects. The problem aggravates as these students graduate into professional architects, still unaware how to apply the learnt theories in the practical problems (Badrinarayanan, 2016).

The culture of treating architecture as a subject of pure art has resulted in professionals who do not extend their thoughts towards their social responsibilities. Even if they try, they are not equipped to comprehend the full weight of the social, cultural and economic factors that need to be associated to the technicalities, and thus, the entire process loses credibility. In present times, there is a rising concern about sustainability. Social and cultural sustainability aspects could be made into integral parts of design by upholding the identities of the users, however the students mostly relate the term ‘sustainability’ to the environmental part. People from different parts of the world bear different cultural legacies, and to understand them as clients, to create a sustainable space for them, students of architecture must be freed from their own ethnocentric approach.

A building has a prominent position in time and society. Architecture is an assemblage of cultural ideas, that of its designer and of the users. Social production in terms of architecture means a space that has been designed for many, that assures equitable access to resources. If the cultural needs of the users are not satisfied by a design that can result in immense environmental stress, and acute psychological stress for the users (Gopalkrishnan, 2018). To understand this cultural bridge between the user and the building, the architect must be aware of material and immaterial cultural heritages. A building is built for the users who belong to a community or different communities. The designer may not be a part of the community, but they should be well versed with the cultural tropes of that community. The students of architecture should draw knowledge from not only design studios but also from what they see around them in their daily life, from the different levels of socio-cultural and economic strata.

To make the students culture supportive, the staff must be so. The Eurocentric ideas that have been rampant in architectural education over years should be replaced by the importance of cultural significance (Mehta, 2020). The design, the techniques, the materials everything must be socially and culturally congruent. To make that happen, certain educational approaches like decolonisation of educations are very important. Architecture does not only pertain to the notion of how to build and live now, but also to develop and flourish in the future. The building must contribute towards the social and cultural scenario in the future in equal measures. For students to understand and practice this notion, they must be guided beyond text-book learning, and explore their surroundings, segregating the relevant from the irrelevant information that they may use in their designs (Salama, 2009).

The teachers must ensure that the students get a chance to use the gathered information in the design problems, which are not the generic run-of-the-mill problems, but such, which help students develop the understanding of the composite relationship between the built environment and the users. The design problems should emphasise on the relationship between the cultural background of the users, the social needs and the physical contexts that emphasise on the Human Factors in design, while the theory lectures should focus on topics like culture, creativity, building and their spatial environments and design fundamentals. The students must be aware of the world around them, and not be isolated in the studio. The design briefs, which mostly cater to the majority group of the society need to be replaced by more thoughtful and discursive problems. To push the students towards a better understanding of the user context of the design problems, they need to be taught to analyse, accept and respect the perceptions of others.

Chapter 3: Architectural Education Trends (Around the World)

The chapter begins by enlisting the global trends in architectural education. An overview of architectural education in colonized India is given, followed by an overview of the contemporary architectural education in India. The current educational organisation hierarchy, and other topics that impacts the curricular progress made over the years will lead towards the need for the decolonisation of architectural education in India. A brief history of the idea of decolonisation of education is provided followed by its need in Indian architectural education. Th relation between the UN Sustainable Development Goals and architectural education of India is described, and the changes needed in the curriculum are enlisted. The objective of this chapter is to examine how the topic of social and cultural sustainability can be promoted in the Indian architectural curriculum with the help of decolonisation of education. This chapter will lead towards the conceptual framework of the research.

3.1 Global Trends in Architectural Education

3.1.1 Pedagogic trends in different countries

For better comprehension of the academic tendencies of the architecture students around the world, tests were conducted with students studying architecture in universities of Britain and Israel. According to the results, the students in Britain were more prone towards the aesthetic aspect of architecture, as compared to the technological aspect of the design. The students in Israel showed similar interests in aesthetics, but paid attention to the insights of their teacher when it came to functionality. As mentioned in section 1.3.1, students are open to making functional changes in accordance to clients' wishes. Trans-disciplinary learning has made the students more aware of the needs of the clients around the world.

In Japan, the schools of architecture are located within the university of technology and the students of architecture have to study with their peers who are fully concentrated on the technological aspects, so the architectural curricula emphasise the technological aspects. In the first year they study the same subjects as the engineers, and in the later years, they are taught technical subjects by the teachers who have specialisations in them (Symes, 1993).

To bring in sustainability into the picture, some additional changes need to be made in the curriculum, even on the policy level. The UK policy on sustainable development and sustainable communities has been widely debated over the past decade. According to Woodcraft (2012, p. 32):

"*Public agencies and programmes like the Sustainable Development Commission (SDC), the Commission on Architecture and the Built Environment (CABE), and the Egan Review (2004) did much to promote the sustainable community's policy agenda and to develop research exploring the connection between the built environment and social experience. However, shifts in government policy and spending priorities, changes to the planning system, and lack of resources and capacity in local government have stalled debate, development and practical application of many aspects of this agenda*."

Architectural curriculum needs to be constantly updated. The students of architecture, after completing their formal education, often proceed into diverse professions, which are away from the mainstream architecture, with merely marginal connection with the construction industry. Due to the rapid growth in information, advances in technology and changes in the society, the professionals thus need to continuously update their knowledge and skills over their lifetime. The foundation of this continuous learning must be laid by the architectural education system, which must respond to these changes and enable the students to update themselves to realign architecture to meet the challenges (Nicol and Pilling, 2000). The London School of Architecture modelled a structure with a network of 40 or so supporting practices for a two-year program where the students were immersed in practical work in the first year. The second year was a full-time study in school, during which students were guided by tutors on the lines of the interest that they had gained through their experience from the practical work done in the first year (Moussavi and Hunter, 2017). The idea was to provide students with choices alongside the conventional architectural education. The choice would arise from their experience and ideas-led practice, inter-twining with the practical issues of the city in which they were working (Keniger, 2016).

In Australia, students are exposed to the practical field right at the beginning of their education, and thus they know which way the curriculum is focussed, and what are their paths of interest, that they can follow in future. One notable difference in structure is provided by the University of Melbourne where the 'Melbourne Model' (now the Melbourne Curriculum) requires most students to undertake generalist undergraduate programs as a prerequisite for entry to specialist and professional master's degree. External tutors contribute to the architectural education, which gives the students a lot of insights into the practical work. However, this also has its negative sides as the external tutors are often not aware of the latest techniques in architectural pedagogy and, sometimes there is a lack of coordination and the long-term direction of the course that might weaken this approach (Keniger, 2016).

In the Arab education system, some qualities like open-mindedness, readiness to accept other's opinions shared needs and goals and space for multiple perspectives are traditionally missing. So collaborative studies are difficult to conduct as the basic trust between the partners and other's opinions is important to do so (Badawy, 2014). Constructivism and socio-cultural approaches are the two major theoretical factors that affect collaborative learning. In a good collaborative learning situation, a student will learn not only about a subject, but also about general thinking. When working together in groups, they will be introduced to new ideas from their peers, and the result will amount from the assimilation of the collective cognition (Russ and Dickinson, 1999). Architecture is such a profession that needs professional collaboration with others in team work so that the project may be completed in the desired manner. Collaborative teamwork can lead to better clarification of the task at hand (Walton, 1991). The studio learning plays its part here as the students learn to work in teams from an early age, taking in the advice of their peers, with almost no interference from their instructors, in their minor design research. Collaborative teamwork leads to a more intensive analysis or critique of the final design solutions; it can

expedite the design process, and can improve both project quality and performance. Collaborative learning leads to gain and exchange more knowledge about the subject and about thinking in general (Ismail and Soliman 2010).

In the Middle East, the focus is on the possibility of architects moving from one point to another in their relationship with global architecture, but still being able to produce work that will be local and have contemporary elements and be diverse. There, the theory classes are mostly influenced by the Western literature. There is hardly any local or regional connection. The schools do not encourage any inter-regional connection through student exchange programs either (Salama and Amir, 2005). The role of society, education and professional institutes is questionable as Arab architects prosper all over the world, yet when they graduate in their own country, they can be considered as only half-architect, or half-qualified.

The academic community should be involved in providing opportunities for future architects and urban designers to develop more socially responsible and environmentally responsive architecture. Furthermore, the undergraduates' years are characterised by the maturation of their world view and personal learning habits. For that, universities and colleges should provide the right environment in which undergraduates form their environmental awareness and sustainability thinking at all levels, so they later invest those acquired principles in their personal and professional lives (Badawy, 2014).

The study of architecture in Kuwait started in late 20th century, which was an advantage for them, because they were able to learn from the architectural experiences and expertise of the rest of the world. However, the latest issues in the architectural education, which must be integrated into the curriculum, like sustainability, are also a rising concern in Kuwait. In the outline of the architectural education of the university, environmental and sustainability related topics have been mentioned, but there is no mention of how they are to be taught in the class, or how the topics can be related to the different studio projects (Al-Hassan and Dudek, 2008). The NAAB (National Architectural Accrediting Board) pays regular visits to the universities and ensures that the American syllabi model is followed there, hence ensuring that the education goals are directly related, and sustainability is taught following the footsteps of the American policy. The syllabus set out by RIBA (Royal Institute of British Architects) and AACA (Architects Accreditation Council of Australia) were studied, and it was found that it would be more suitable for the Kuwait University to accept the Australian model, as RIBA offers a flexible, open-ended plan, where much interpretation and modifications can be done, while AACA offers a well-defined curriculum with certain set boundaries (Al-Hassan and Dudek, 2008).

3.1.2 Drawbacks of contemporary design pedagogy culture

The key negative aspect of the contemporary culture of design pedagogy is that the topics talked about in lectures and classes pertain to theory, which often have gaps between them, or are not related to the practical world (as mentioned in section 1.3.1). This creates a gap in the knowledge and the students are never really prepared for the real-world problems. In most cases one part of the lesson is not related to the next part and that makes it difficult

for the students to relate to the topic as a whole. They perceive the lesson as an assimilation of different ideas (Salama, 2015).

Several research works have been done where the students were required to work on different levels that included economic, functional, aesthetic and ethical spheres. The general solution that architects usually have to any kind of problem is mostly a spatial solution. The link between physical and mental design processes have re-established the debate that the physical reality is set outside the intellectual measures of aesthetically driven design. A design assignment was proposed for the American students, to design a skyscraper in the business district of Dubai that would create an interactive link for the people of the area, through their needs and the aesthetic elements of the building. Theory classes were arranged where the students were taught about the Islamic form culture, and the culture not from the sole perspective of history, but along with other form languages so that they may gauge the depth of the new culture in which they need to make their design work efficiently (Salingaros and Masden II, 2010).

The education format has not changed for over 20 years, and that poses a problem as the students do not always get updates through the curriculum. The subjects that they study would take them approximately 22 years to be studied thoroughly and completely (Pasha and Adnan, 2019). Academically, architecture is in itself a pedagogy, and each building has their own embedded hidden curriculum that can greatly influence and affect learning process. In recognising architecture as a pedagogy, learning processes occurring beyond classroom through every day experience must be recognised first. It is very important that the students of architecture learn to understand and visualise the spaces around them, with which they get familiarized daily. They live with the backdrop of architecture but seldom realise the role that is played by the built environment in their life (Bashir, Othman and Abubakar, 2015). In today's world, knowledge and expertise in one particular domain is not sufficient. Critical thinking to analyse and synthesise information to solve technical, social, economic, political and scientific problems is essential for successful and fulfilling participation in the modern-day profession of architecture (Abdullah et al, 2011).

3.1.3 Integration of sustainability in architectural education

Over the last few years, sustainability has gained importance in the curriculum of architecture world-wide. However, it has been noticed that sustainability in architecture has been progressively reduced to energy-efficiency, mostly as an answer to advanced specialisation and strict building codes (Wyckmans, 2008). The new questions that are arising out of these discussions are as follows:

1. How can sustainability be accommodated in the architectural curricula?
2. How can architectural education facilitate a sustainable development in the built environment?

A couple of methods that can strengthen students' learning about sustainable architecture are:

1. Inclusion of lectures on sustainability in the curriculum.

2. Introduction of inter disciplinary exercises on use of resources in building design and town-planning, so that both students of architecture and other fields related to construction work, may cooperate on sustainable building projects.

The integration of sustainability issues in the undergraduate curriculum also provides an excellent opportunity to improve the continuity of the entire education (Wyckmans, 2008). Comprehension of such issues through a global approach of the sustainable development goals set by the UN, with adherence to the local needs can be obtained through a clear idea of the local history, where the roots of the present needs can be found.

3.2 Architectural Education in the Colonially Occupied India

Since 327 BC, India has been invaded nearly 200 times. Several empires had come and gone, and left back their manners and customs, thoughts and beliefs. These were then adapted and developed into the successor systems. Amongst them, the rule of the British Raj had been the longest, from 1660 to 1947 (as previously mentioned in section 1.4), most prominent and extensive. The architecture of British Empire was endlessly varied. Wherever the British settled, at first, they tried to adapt to the native style of living, and then slowly made structures more like at home. There was no definitive philosophy of the imperium, there was nothing absolute to its building arts. Its manner of self-expression was affected by many other cultures; thus, its architecture embraced all European styles along with every kind of local variant and adaptation. In different parts, the British taste was subtly mutated according to the needs. Still, most were recognizably English buildings, as in fact Imperial Architecture depended heavily upon manuals of design sent out from London (Morris, 1986). The buildings that were erected for the many different purposes, were marked with references from the European styles of architecture. Some had Ionic or Doric columns, others had gabled roof, while the important buildings were planned mostly with the local climate in mind thus bringing out new mutations in design with the resemblance of the European culture (Davies, 1985).

Though the plans for the important and prominent buildings were being sent down to the Public Works Department in India from London, technicians were needed to decipher them properly and execute the plans. Through this process, the need for architectural education developed in the colonially occupied India. Formal architectural education started with morning classes for the draftsmen and tracers who could draft and replicate blueprints from the previous drawings made by the European architects. The two years course slowly gained importance and became a four-year course, when the structural education was introduced into the syllabi. The final exam was conducted by R.I.B.A and was not affordable by many students. This need then gave birth to full course architectural education in a select few colleges in the country (Narwekar, 1959). This was the beginning of a new era for architectural education in India.

Banabhatta's Kadambari, a Sanskrit novel written two thousand years ago has referred to architecture as one of the sixty-four kalas or arts (Ministry of Human Resource Development, 2019). Historic universities like Nalanda (5th century – 13th century CE) and Takshashila (700 BC – 7th century CE), if they would be allowed to grow organically, would

have absorbed knowledge from the Western contemporaries and imparted multi-departmental knowledge today to students, and would be the top of the list. In history, they were known to impart holistic education through trans-disciplinary and multi-disciplinary modes of teaching (Mehta, 2020).

Formerly, a student became an architect through hands-on-material training, which now has been condensed to a few years of cerebral education. The journey from *shilpi* (apprentice) to *sthapati* (architect), under the rigorous guidance of a master over several years of practice on field seemed to be made easy through several theory and practical courses based within the classroom and the studios. New problems came into focus after India attained independence in 1947. The architects took up the responsibility to drift away from the colonial influence, but took refuge in the architectural styles of India, from before the colonial era. In an attempt to move away from the post-colonial effect, not only were the architects confused with as to what they should offer their clients, the clients too were confused by the conflict between the traditional and contemporary conception of design in architecture as was being presented to them by the architects in queer ensemble. Those architectural styles had served their purpose in the Buddhist or Mughal periods, and they could not have been imitated to satisfy the needs of the then present age (Chhlbber, 1959). Architectural cannot develop by reusing the forms that has been used in the past. These forms have served their purpose and need altercations to suit the users of the current and future times. The academic theories of the modern times, that support purity and correctness in style are based upon similar ideologies. These theories are inconsistent with any development in architecture (Scott, 1914).

3.3 Contemporary Architectural Education

Contemporary architecture today stands on the work done in 19th century by the likes of Auguste Perret, Henry Labrouste and Tony Garnier in Europe and Louis Sullivan in America (Mehta, 2020). The contemporary architecture in India reflects a disjunction, where a part of it belongs to the machine age of modernity, while the rest still belongs to a separate cultural datum that does not belong to the modern times. Likewise, contemporary architectural education in India is by and large a legacy of its colonial past (as mentioned in section 1.3).

Architectural education in India today, aims at creating the ‘perfect practitioner’ who will build the most iconic buildings as were built by the masters like Frank Gehry and Zaha Hadid. Another common trend is to ape the energy consuming large monuments of Dubai and Middle East in Indian metropolitan cities where they will catch the attention of a few, while the rest of the urban landscape around it struggles to lead a life of fundamental human dignity (Badrinarayanan, 2011). Earlier, architects worked within the seamless fabric of the city and enriched the “everyday environment”. Since Renaissance, there has been a preoccupation with creating “villas” and “iconic monuments” that were isolated from the city, surrounded by open landscape (Badrinarayanan, 2011). Earlier the cities had a generous approach, where the neighbourhood of each building catered to the needs of each other and respected the human needs and activities. Public nodes were common and

maintained an unwritten code of civic generosity for the immediate neighbours and the public space around it. Today, only the gated communities and the private properties are being well-built and well-maintained while the public realms of the roads, markets, pavements and parks remain in a dilapidated state. As a developing nation, India cannot allocate precious energy and resources to building and maintaining structures that merely mimic Western edifices (Badrinarayanan, 2011).

Over time, an unthinkable desire for more has emerged, leading to each plot being treated independently. Every design is unique and doesn't follow the layout of the neighbourhood. (Badrinarayanan, 2011). The general view of the architects regarding the living sustainability of the 21st century is about individual physical buildings rather than the entirety of the spatial occupation (Lim, 2014). The historical significance of an area should be noted while building an edifice in a locality. The knowledge is needed for implementation and should not be taken in literal reference. The buildings today are not context specific; the architectural styles do not adhere to the character of the surroundings where the buildings are situated (Bahga and Raheja 2018). It is often forgotten how every form embodies a meaning. The historical buildings that we celebrate today are not celebrated for their aesthetic beauty, but also because they were the thresholds of the life that happened within them, and the cultural spectre that they were the organic parts of externally.

As mentioned in section 1.3.1, there have hardly been any changes in the architectural curriculum in the last few decades. This tilt towards the professional edge stems from the fact that the architects are trained to serve the dominant culture of the rich clients, while not sparing a second thought about the economically weaker section of the society. The architectural educators do not know how to deal with the poor societies, how to protect the built heritage within the socio-cultural perspectives, how to involve the people affected by design decisions into the process of making those decisions and how to deal with several problems associated with populations who represent different sub-cultures, including the disabled, the poor and the under-represented (Salama, 1999).

3.4 Current Architectural Education Trends in India

The modernist architects never tried to imbibe the needs of the users into their design, even if the users were the direct clients of the project. To them, the users were not stable or coherent entity and, in most cases, the users themselves were unaware of what they should have or need. Whatever need was felt by the agency and the architects that would be incorporated in the program. If the design devised did not fit the habitual user, then the fault would be assumed to be with the habit (Kostof, 1989). Today space is limited while the demand for space is ever increasing. It comes upon the architect to choose and sort upon spaces for human inhabitation in comfort. To do so, the architects must calculate all the parts of the society, including the elderly, the gay, the children and the homeless, who all form parts of the user group (Ellis and Cuff, 1989). When architects see people negatively, they tend to block them out of professional sight, and focus on the positive people and work for them. Soon these negative people are omitted out of the public plans, gradually this ignorance leads them to become non-existent or non-people (Groth, 1989).

To counter this effect, what is needed is social architecture as elaborated in section 2.5. However, one major setback in this process is that the architectural education system in India today is focused on earning money (Mehta, 2006). Several schools and colleges, blatantly advertise how they aim at “Job Oriented Education” where the curriculum, teaching methods and the sole purpose of education becomes creation of wealth by exploiting the learnings in to work and career (Mahdavinejad et al, 2012). The problem solving or the focus on the welfare of the society through vocation takes a backseat. Profession and academia are two sides of the same coin. Ideally the education of the architects should be such as to monitor the profession. However, in reality, the scenario is the opposite (Mehta, 2006).

In India, architecture is not one of the first few choices for students. Those that do enrol in this professional course are presented with the choice of profession-oriented career or a knowledge-oriented career. According to Mehta (2006), the profession-oriented career concerns itself solely with economic success. The knowledge-oriented career carries the social and cultural responsibility upon it.

Different key pedagogies that are pertinent to the architectural education in India, like experiential learning, constructivism, problem-based learning, social learning theory and place-based education are discussed and mentioned in articles and books. Some of these pedagogies and their applications will be discussed in sections 3.7.3 and 3.7.4.

Some Global pedagogical methods, which are now being introduced in Indian architectural education, are discussed as follows:

- Evolution of studio culture – Studios are becoming the centre of experimental architectural learning, by involving hands on application of conceptual ideas, experiential learning as opposed to theoretical learning, and applied learning in external settings (from workshops and seminars, students being allowed to operate advanced technologies, promoting learning with commitment to society, environment, sustainability and accessibility). This will help in evolution of the personal competency of the students, improving their creativity, critical thinking, dedication, discipline, analysis and synthesis skills.
- Elimination of the concept that the student of architecture will be limited to being designers. They are encouraged to choose their educational paths depending on their interests, capabilities and capacities. Provision of such options is important for the growth of the students.
- Training of the five faculties of the students to understand, appreciate and differentiate between good and bad architecture (Gupta and Ashtt, 2020).

While these skills are necessary, they are not sufficient condition for holistic architectural education. These skills will resonate deeply, when they will serve deeper value-based architectural expressions. So architectural education in India must move beyond the minimal standards set by the regulatory body (Council of Architecture). At present panels of peers review educational institutes regularly, however, when the review results exhibit

mediocrity, little can be done because enforcement power lies with enforcing the minimal standards. This can be rectified through emphasis on the importance of research. Research based learning will enrich students with improved knowledge over instruction-based learning. The faculty members in the architectural education institutes must be active beyond the classrooms to contribute to knowledge. The process of enhancing pedagogical methods must be transparent to provoke excellence. Curricula should be redefined accordingly, and students must be motivated to enhance their learning output to make a change in the architectural scenario of India (Chandravarkar, 2013).

The increased complexity of the social structure has ensured that the architect is separately trained for the job, and to perform at the expected rate, the architect is supposed to be conversant with history, psychology, sociology, politics, the materials, new technologies, etc. All this has become cumbersome and has somehow stifled the imaginative design orientation of the architect (Parelkar, 1959). The root of the problem can be traced back to the Architects Act of 1972 in India. The Architects Act 1972 was meant to construct a set of qualifications, which could allow people to register themselves as architects legally. The institute that was supposed to take care of the registration of the architects, was also bestowed with duties towards specifying the detailed program of study, courses, and time spent on each of them, duration and stages of the program that would make the architects eligible for the registration. The institute is Council of Architecture, which takes care of both the duties to the present day. A sound educational programme is not just a syllabus for prescribed courses, but the coordination of course contents so that the students may become aware that they are not studying design, structure, material, etc., independently but architecture (Pradhan, 1959). The curriculum alone cannot change the scenario in architectural education. The change has to be documented, supported, and implemented by visiting boards and panel members (Milliner, 2000). However, in the current conditions, achieving that status is difficult (Mehta, 2020).

In December, 2022, the University Grants Commission (UGC) of India has introduced a new legislation which is pertinent to this study. The released document is called ‘Curriculum and Credit Framework for Undergraduate Programmes’. This document updated the standards and mandates for the architectural undergraduate programme. In this, under section 5.0 ‘Structure of the Undergraduate Programme’, subsection 5.1.6 ‘Value-Added Courses (VAC) Common to All UG Students (6-8 credits)’ aims at the need for understanding India. The document mentions, the course will attempt to deepen the knowledge of the students about India’s past, and the people of India from different regions and sections. This will highlight the cultural variances that they will be working with as professionals. Council of Architecture of India has released a circular updating the Minimal Standards of Architectural education Guidelines based on the UGC framework update.

3.5 Institutional Hierarchy in Architectural Education in India

In India, the schools of architecture are bound by two figurative circles.

1. Council of Architecture – the school curricula, code of conduct and other regulations are governed by the body.

2. The State or deemed Universities to which they must be affiliated – They treat all schools under them with similar restraints.

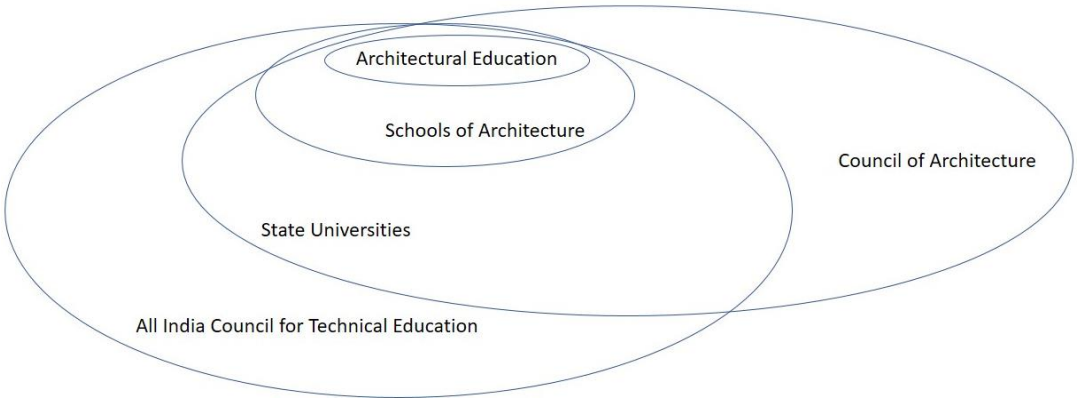


Figure 3.1 – Institutional hierarchy in architectural education in India

Architecture is taught in schools of architecture, with deemed status, or in the department of architecture in technical institutes, which are affiliated to the state universities. All the institutes teaching architecture must be affiliated to the Council of Architecture. The Council conducts yearly or regular intermittent inspections, to ensure the institutes are abiding by all the rules set down by the council, the curriculum is being strictly followed and the standards of educational facilities are up to the mark. The technical institutes, and state universities are also affiliated to All India Council for Technical Education (AICTE). Though all the rules set by AICTE are for the engineering faculties, they have to be ensured by the department of architecture as well, being a part of the technical institute. AICTE does not interfere in the curriculum set up for architecture.

The example of this institutional hierarchy in form of a detailed chart is given below, for a single state of India, Odisha.

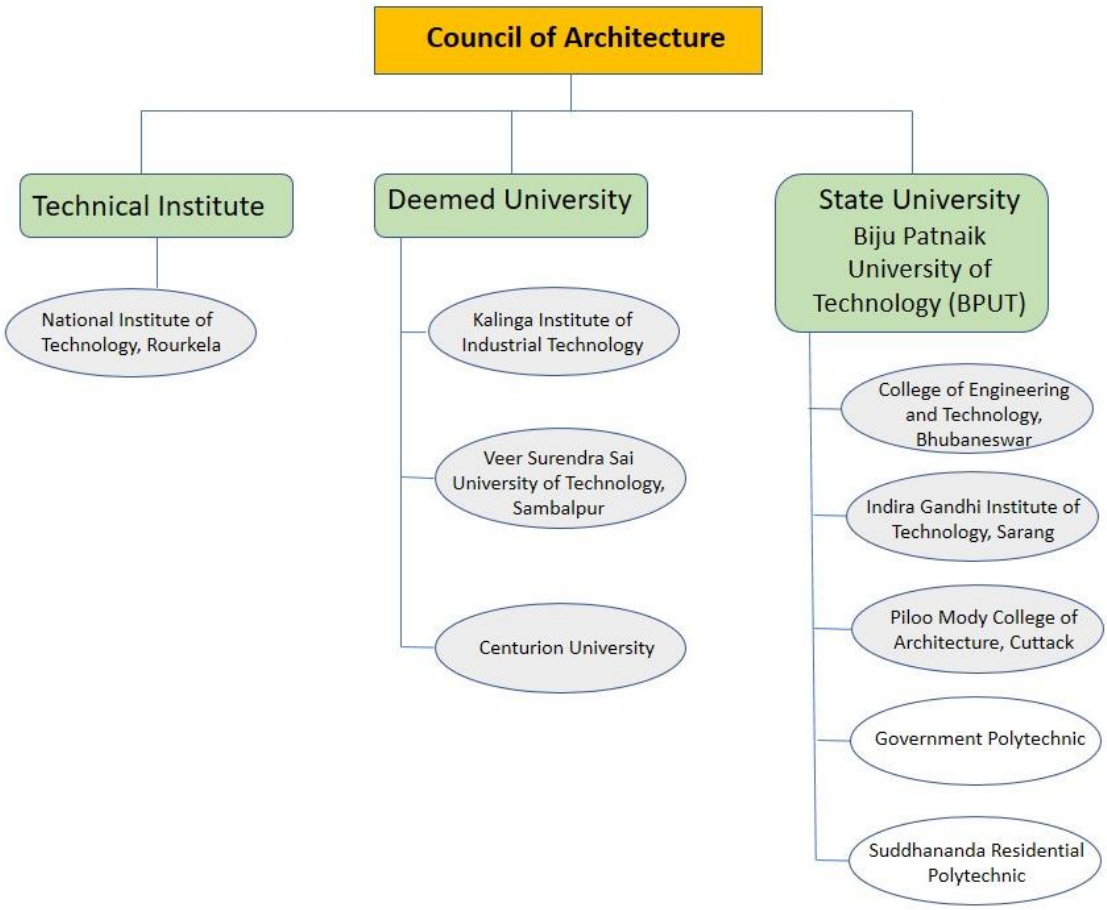


Figure 3.2 – Example of institutional hierarchy in India

For every state in India, this hierarchy format is followed. As India is comprised of 28 different states, there is immense variety in culture, society and lifestyle, which reflects in the vernacular and cultural architecture of the region. Architectural education is often trapped between architectural genres of specific territorial conditions and trans-local conflicts with form-concept relations that conservatively inform the syllabus and design-studio programs. Therefore, it always requires two processes: first, to decolonize architectural knowledge from a certain hegemonic, territorial condition, which that institutionalisation process is attached to and second, to create a transversal methodology that goes beyond form and concept in design (Tan, 2017).

3.6 Decolonisation of Architectural Education

The dominance of Western knowledge forms the basis of coloniality of knowledge. The general notion is that the non-Western knowledge cannot achieve a universal consciousness, while the Western knowledge and philosophy are the only way to achieve it. It has made coloniality outlast colonialism in the field of education (Walton, 2018). Decoloniality addresses the coloniality of knowledge, the coloniality of power, and the coloniality of being (Ndlovu- Gatsheni, 2013). These colonialities are imbricated, are mutually re-enforcing and together produce the experience of coloniality, which should be

distinguished from colonialism. The latter refers to the situation where the sovereignty of one nation or people rests with another nation or people. Coloniality outlasts colonialism and perpetuates patterns of power in social, economic, cultural and educational relations that were established as a result of colonialism (Moldonado- Torres, 2007). Colonisation starts from the mind, where the minds are trained by organisational rules to follow certain norms imposed upon the people, and secondly by the denial or disregard of the indigenous people of themselves and everything that belongs to them. This by far is more dangerous as it becomes a norm to accept the alienated external resources to be the best as compared to the local resources. Knowledge and education come under it as well (Seehawer, 2018).

The imperial ideologies and colonial relations of productions need to be continually challenged as the exclusion of the indigenous knowledge from the academia may simply lead to re-colonisation. Calls for decolonising education first emerged on the African continent in the context of decolonising struggles against colonial rule during the 1950s and 1960s (Fataar, 2018). According to Fataar (2018) Decolonised curriculum is based on 4 Rs. They are:

1. Relational accountability: all the different parts of curriculum are inter-related, and the curriculum is accountable to all the relations.
2. Respectful representation: how the curriculum creates space for the voice and knowledge of the indigenous people.
3. Reciprocal appropriation: ensuring that the benefits of the knowledge get to be shared both by the indigenous community and the university.
4. Rights and regulations: Observing ethical protocols and according ownership of the knowledge to the indigenous people.

Certain elements of decolonisation that have been identified are:

- deconstruction and reconstruction,
- self-determination and social justice,
- ethics,
- language and internationalisation of indigenous experiences,
- history and
- critique.

Here, history refers to the study of the past to recover the history, knowledge, language and culture of the colonised people to inform the present generations and to be further studied in the future generations. Critique refers to the critical appraisal of the imperial model of academia that disregards and continues to deny the history of the colonised and marginalised people and communicates from their own frame of reference (Le Grange, 2016). As mentioned by Fataar (2018):

"*The call for decolonising education is basically for knowledge pluralisation, which refers to incorporation of the complex ways of knowing of subaltern and all previously excluded groups. This call represents a principled negation of the Western-centric knowledge orientation. Instead, decolonising education is based on the inclusion of all knowledge forms*

bequeathed to humanity, including African, indigenous, Arab-Islamic, Chinese, Hindu, Indo-American, Asiatic and Western knowledge forms. This all-inclusive approach to knowledge is based on an inter-cultural understanding of multiple and heterodox forms of being human. All knowledge forms have to be brought into play in intercultural education that promotes a type of epistemic openness to the knowledge of all human beings. This approach would seek to undermine the knowledge parochialism, which is the idea that one's own knowledge system is superior and thus sufficient for complex living. The call is for schools, colleges and universities to cultivate respect for people and their cultural and knowledge systems."

Colonial governance might leave a country, but the ideas of coloniality remain back. Even when we push back colonisation as a physical process, colonialism as a power structure continues as a metaphysical process and as an epistemic project, because it invades the mental universe of people, destabilising them from what they used to know, into knowing what is brought in by colonialism, and it then commits 'crimes' such as epistemicide, linguicide, culturecide (Ndlovu-Gatsheni in Omanga, 2019). The concern is that the procedure of decolonisation of curricula should be thorough, including individual and collective effort from people working on it, and not a mere decolonial washing (a term borrowed from green washing, as done in sustainable architecture, where a company shown their building to be environmentally sustainable but is truly not so) (Le Grange et al, 2020).

With colonised education system and curricula, the students are continuously moved further away and disengaged from the local community that they have experienced as the built environment surrounding them, and the culture that they have first-hand knowledge in as their own. Students exposed to this westernised culture feel disengaged and disenfranchised from any indigenous knowledge bestowed upon them by their schools. The system of chew and pour (learning and memorising) has become the order in the schools, and thus leaves out little room for interrogating the lessons in the minds of the learners. The students are learning these colonised curricula at the risk of being alienated from their indigenous identity, culture and knowledge (Banhene Adjei, 2007).

3.7 Need for Decolonisation of Architectural Education in India

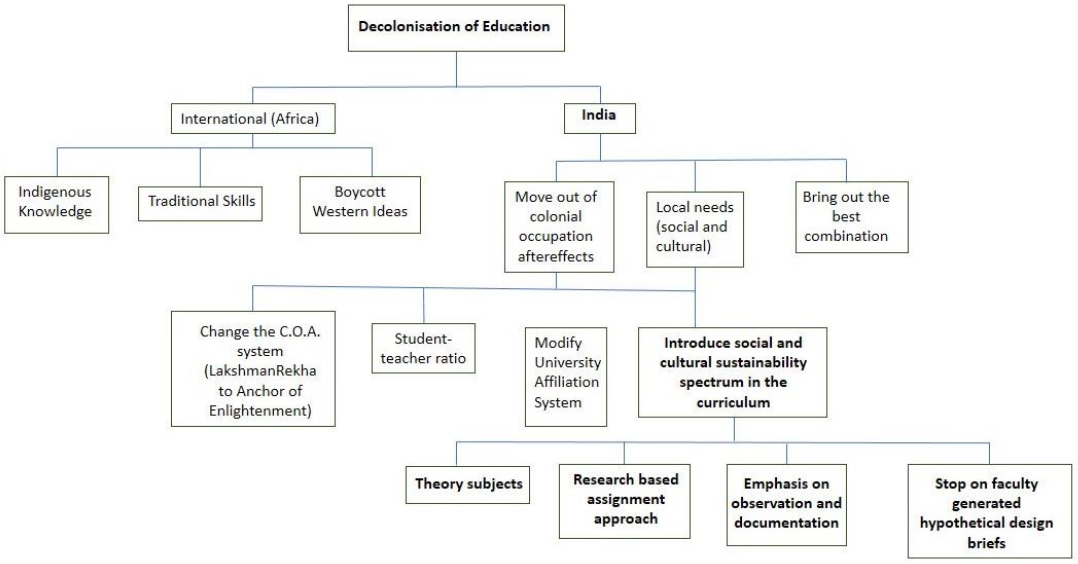


Figure 3.3 – Decolonisation of Education with respect to architectural education in India

Figure 4 delineates how the theory of decolonisation of education is applicable for architectural education in India, and how social and cultural sustainability can be included in architectural education in India. Despite originating in Africa, this theory is applicable for the education system of most countries with a history of colonization, India being one of them. The present architectural curricula of India suffer from the aftereffects of colonial occupation, which is evident from the tendency of aping the Western designs, with no regards for the local needs (Badrinarayanan, 2011). It can benefit from decolonization, as it would help the curricula to move away from the colonial hangover and focus further on the local needs, in the form of social and cultural responsibilities. Introduction of the social and cultural spectrum in Indian architectural curricula will converge the attention on the local needs of the users, as the mode of introduction of this topic will be through research-based assignment approaches, which will emphasise observation and documentation. The theory subjects will also focus on the indigenous knowledge, and the design briefs will be based on real life projects rather than faculty generated hypothetical design briefs. The need for decolonization of architectural education in India will be elaborately discussed in this section.

3.7.1 Architectural curricular perspective of Global South

India is a nation of diverse cultures. The cultural backgrounds are highly variable amongst the students of architecture and due to this variety, the cultural diversity offers to enrich the

curriculum, an opportunity that has not yet been fully explored by the academicians (Mehta, 2020). Architecture is not just limited to production of buildings. It is a means to the visual ways of thinking and communicating to move towards the betterment of society. In a multi-lingual and multi-cultural society like that of India, visual communication can bridge the gap for people belonging to different cultures and communities. The curriculum must engage aspects of multi-vocality and multiple intelligences in order to facilitate learning in a culturally diverse society. The physical built environment which the student can directly engage, analyse, and represent should take precedence over language-based text and abstract theory as medium for engagement and learning (Fisher, et al, 2017). Through experiential learning, students can have a first-hand idea of how in a given spaces culture can be dominant and dominated. They can understand how a dominated culture struggles to cling to its identity in a space, where the majority belongs to a different culture (Dutton, 1991).

Decolonisation of the curriculum is important, as often the colonised curriculum fails to uphold the contribution of the Global South. Decolonisation is needed, not to exclude the Western teachings, but to outdo the hegemony of the Western curricular paradigms that does not do justice to the indigenous ideas, languages and contributions to the field of study. A knowledge gap has been observed between the knowledge systems of global north and global south. A few reasons for this gap may be the low recognition of the southern authors, low appreciation of papers written in local languages, the differences in the fundamental paradigms of thoughts and concepts, and the need for greater South-South collaboration (Ramani, 2011).

3.7.2 Role of Council of Architecture in decolonisation of architectural education

Over the last few decades there hardly has been any changes in the architectural curriculum (as mentioned in sections 1.3.1 and 3.3). When practicing architecture, an architect must take notice of the evolving environment around them and connect to it. Through the connection, one may realise the needs of the changing times and what is needed to be built for the present times as well as for the times to come. Once that is made, it is needed to be maintained over the period of time, or else it will be subjected to decay. Through maintenance, one can revive and bring an awareness of the time and the rhythm of life and death. In this way the matrix becomes a spiral where the new generations can evolve to higher realities based on their knowledge of the earlier generations. Students of architecture today are not being skilled with knowledge relevant to our living conditions. They are accepting their professional responsibilities, without understanding the real-life problems, thus creating more conflict and loss of integrity. They develop and invest their skills in reproducing ideas and forms which are lifeless imitations. In this way the potential of several generations of students of architecture has been constricted and denied its natural evolution (Ganju and Dengle, 2013).

To start with the decolonisation of architectural education process in India, a major step that can be taken towards success is to change the process of model system in which the Council of Architecture and the governing university bodies work. Both systems have a very

similar way of working. They have a set standard, which every school and college of architecture must meet. This is the minimal standard that must be reached in order to qualify and remain affiliated (as mentioned in section 1.3.2). These standards have been published as the 'Council of Architecture – Minimum Standards of architectural Education'. This document had been reviewed in 2008, as an update upon the 1983 document which had no mention for the requirement of social responsibility education in the architectural curricula (Kramer, 2012) The latest Point Based System of Council of Architecture to evaluate schools is a very process-oriented system. The schools are penalised if they lose points, but there are no benchmarks, or highest set goals for them to achieve. By achieving the minimum from the 1983 Act, they reach the maximum of their capacity. The universities to which they are affiliated, treat all schools under them with similar restraints and pull down the good schools to the same mediocrity as that of the others. There is no parameter where the schools can prove their uniqueness of thoughts or philosophies, they are forcefully put into a single regime (Mehta, 2020).

This system can be called as a *Lakshmanrekha* system, the term influenced by an Indian mythology, meaning 'a line which should not be crossed to avoid hindrance'. The Council and the universities tend to have drawn a similar line for the architectural colleges, to not cross over and wander off, limiting the potential of generations of students and an exciting could-have-been architectural future for the country (Mehta, 2020). It is time to leave out the *Lakshmanrekha* model system and reach out for the *Anchor of Enlightenment* where schools are prompted to go out and be their best forms while remaining loyal to the core value of systems. The University system here also calls for modification. Instead of judging all the colleges and schools under them, based on same parameters, they should allow the schools and colleges to form their own benchmarks to achieve, and thus, make things better through healthy competition. However, these changes are easier said than done. Such changes in policy would strike directly at the root of the colonised frame of action that is rampantly being carried out and would dishevel the balance of mediocrity on which the entire system has settled comfortably for so many years (Mehta, 2020). The state control of education and the command economy has so far ensured that these institutions do not have to compete with each other and proclaim their unique offerings to attract bright students. In the absence of effective competition among the schools, the Council's 'minimum' standards tend to become the maximum beyond which the schools have no incentive to go (as mentioned in sections 1.3.2 and 3.7.2).

The system has followed the ground rules set down by R.I.B.A, from the very start, and as time has changed, they have paid no heed to the changing situations, and their demands. One blatant example of this problem is the student teacher ratio prescribed by the Council of Architecture for the schools to follow. The number of students enrolling in the course of architecture throughout the nation is overwhelming. It is impossible for schools and colleges admitting 50- 60 or more students in each class to maintain the Council prescribed student teacher ratio of 10:1. As a result the amount of attention and care bestowed upon each student in the class is never sufficient (Mehta, 2020). Due to the overwhelming number of students, many teachers are being recruited, who would simply presume their

roles to be judges of the students work, rather than mentoring or nurturing them towards betterment. In academia, though ideally students should be exposed to all kind of related subjects in a structured manner, in reality, the availability of faculty and their skill sets often determine the identity and the direction of the school and the exposure it can offer to students (Mehta, 2020).

3.7.3 Inclusion of observation-based education and research in the curriculum

In today's world, knowledge and expertise in one particular domain will not help a person survive in the competitive market. People at every organizational level must be creative and flexible problem solvers. Critical thinking to analyse and synthesise information to solve technical, social, economic, political and scientific problems and team working spirit is essential for successful and fulfilling participation in our modern, competitive society. It is very important that the students of architecture learn to understand and visualise the spaces around them, with which they get familiarised on a daily basis. They thoroughly study the set syllabus for architecture but seldom realise the role that is played by the design of the built environment in their life. Observation of the surrounding environment, experiencing it as participants, acknowledging different elements of architecture like scale, form, texture, light, colour and proportions should be an integral part of architectural education. Through such observation and experiences, the students will get clear ideas about not only the architecture around them, but also the cultural and social backdrop and inspiration of the architecture (Abdullah et al, 2011).

The world is changing rapidly and new concerns like environmental and social justice are at the forefront of architectural profession. The students need to understand what they should focus on how they should make work easier through research and inquiry as they need to tackle and evaluate situations, with conflicting needs of users, clients and public policies that don't match to these, and overburdened government agencies with limited funding (Hadjiyani, 2008). Of the yesteryears, the Asian regionalism had been strong and even aloof because of the cultural and linguistic boundaries and limited means of communication. However, it looks as though the perception and ideas have travelled and the pursuit of visual language have had some concurrences. A conceptual core of Asian identity has grown, which should not be shed off in pursuit of imitating alienated aesthetic values. Options of research thesis has not been very popular in India, instead a design thesis is a requirement with a small research component for the design program proposed by the student to be submitted in the tenth semester. A sense of adventure that is associated with a process of discovery need to be capitalized by both the students and the teachers in the architectural learning. It is then that the exercises will not be repeated year after year and every time the learning may become a new journey of the individual (Desai, 2006).

The students of architecture should be exposed to more observation-based education, where they actually learn from their surrounding through observing and documenting (Salama and Amir, 2005). Though Documentation is a subject present in the curriculum, that encompasses measuring and drafting exact replicas of elaborate built structures, that is not enough. They must observe and document how the potential, and the present users react

and behave in different spaces, in different times and circumstances to get a better understanding of what they need to work on in their professional arena. Environment-Behaviour Paradigm can be defined as the systematic examination of relationships between human behaviour, cultural values, and the physical environment (Moore, 1979).

The goal is to master this paradigm, and create spaces that would not only qualify as aesthetic perfection, but would also qualify as inclusive, user-friendly, a complete space with no behavioural drawbacks. They would follow the doctrine of Louis Sullivan "Form follows Function", only that the function now has changed its definition from what it used to be in the 19th and 20th century, now it is much more elaborate, much well-rounded (Salama and Amir, 2005). Examining philosophy statements, missions and objectives of the programs reveals that most programs attempt to address the multifaceted nature of architecture. However, they tend to lack orientation since they are project oriented rather than based on a goal driven pedagogy. It would appear that the underlying philosophy behind offering design as a separate discipline is that in most schools the main goal is to graduate "architectural designers". However, this is not explicitly stated in the introductory statements of the programs. In fact, it points out there is hidden belief advocating that practicalities of architecture are attained after graduation and in the real world of practice (Salama and Amir, 2005). Probably this is because the link between education, professional practice and academic research are often over simplified. How the process of research can strengthen the professional education is often missed out.

3.7.4 Importance of experiential learning in architectural education

Experiential learning helps students to retain the knowledge much longer as compared to listening and noting down pre-packed information. Subjects like history of architecture and principles of architecture can be taught through exercises in the theory period, which would not only help the students with critical thinking of higher level, but also retain the information that they have worked out by themselves. While the off-campus studies enable the students to treat the built environment as an open textbook and get as close to the reality being studied as possible, the classroom exercises would help them connect the textbook materials to what they are facing in real life, thus making a more permanent imprint on their memory and cognition (Salama,2010). As mentioned by Habraken (2006, p. 18):

"*We need to teach knowledge about everyday environment. How it is structured, what we can learn from historic and contemporary evidence, how different examples compare, how it behaves over time and responds to change of inhabitation or other circumstances… Teaching architecture without teaching how everyday environment works is like teaching medical students the art of healing without telling them how the human body functions. You would not trust a medical doctor who does not know the human body. Knowledge of everyday environment must legitimize our profession."*

The concept of social sustainability is people oriented, based on the needs of the users, and refers to maintenance and improvement of the well-being of people in the current and the future generations (Vallance, Perkins and Dixon, 2011). There are substantial overlaps

between both social and cultural sustainability as they are difficult to separate and are often considered together. Given the socio-cultural and geographical diversities of the people residing in India, it is almost impossible to provide a single set of standards for social and cultural sustainability principles and indicators. However, architecture has the power to dictate human interaction within it. Depending on the design, there are spaces at which users immediately feel the belonging, and there are other spaces which just do not feel the same. Students must be taught to make use of this knowledge to design spaces, which can serve the society, in accordance with its culture and bring out the best of sustainable design ideas (Spence, 2020).

3.8 The 17 UNSDGs and Indian Architectural Curricula

In an overpopulated developing country like India, squatter settlements are very common and rampant. Squatter settlements form a space of right, rather than a space of privilege. It challenges the dominant culture of private space ownership, or property systems and shows in new lights, ways of producing shelter in alternative cultures and ways of life. Such options of creating space show clearly that there are different cultures that can be served differently through architecture, yet architects as professionals, choose solely to serve the dominant culture, and also teach the future generations of the profession, to serve the same strata of the society (Badrinarayanan, 2011). Neither does the theory of the curriculum refer to them, nor in design assignments do we challenge the students to research on these different cultures, and social elements, and bring about sustainability through the design of a space that includes them. Even if the students may know about them through their daily life experiences, they are never offered a chance to put their cognitive abilities to action for the betterment of the situation (Badrinarayanan, 2011). The contribution of architectural education and profession can and should be much more vital and strategic. As a precondition, architects can recognise that they are not the ones who really create space. Cultures create space.

As mentioned in Chapter 2, the 17 United Nations Sustainable Development Goals are a very elaborate list of all the aspects in which sustainability can and must be achieved. Among the 17 goals, 8 can be easily achieved through proper application of architectural knowledge. They are:

- SDG 1: No Poverty
- SDG 2: Zero Hunger
- SDG 3: Good Health and Well Being
- SDG 4: Quality Education
- SDG 5: Gender Equality
- SDG 8: Decent Work and Economic Growth
- SDG 10: Reduced Inequalities, and
- SDG 11: Sustainable Cities and Communities

By designing and remodelling the architectural curriculum in India, all of them can be easily achieved along with much beneficial social and cultural sustainability. Currently, the Indian

architectural curriculum processes in a systemic hierarchy that prioritises creativity over design curricula, and design curricula over design thinking and research. To break out of this hierarchy, different approaches can be taken. Several tests have already been undertaken to understand the process better. A number of schools in the West, as well as some schools in India, have some of the best of practices that can be followed, or be inspired by to bring out a new approach for the process. To learn how to think, the students must first unlearn the traditional idea of what it is to think. To do that, thinking can be employed to problematize the dialectic between thinking and learning, while writing can be used as a medium by which the students learn to question what they have learnt and how (Mehrotra, 2020). Assignments of different kinds, coupled with the multicultural perspectives of the students may bring out different ideas which can lead to different and interesting ways of learning. The students must reflect, as a compulsory part of their education, on what they know, what they have learned, and to what they might put it to use in. Reflection is a form of personal response to experiences, situations, events or new information. It is a 'processing' phase where thinking and learning take place. There is neither a right nor a wrong way of reflective thinking, there are just questions to explore (Hadjiyanni and Zollinger, 2013).

Studying architecture today has been made easy by the advent of computer programming, where the computer solves many of the three-dimensional problems for the students. However, the students of architecture are assumed to be critical thinkers, artistically capable, and spatial problem solvers and thinkers. The students learn all that through experimenting and exploring creativity, and later, take up the responsibility to give these ideas a shape. It is also assumed that the architectural curriculum is structured in a way that will help in building up these skills in the student as is required by the professional world. These assumptions need testing to ensure if we are really headed in the direction that we collectively assume (Mostafa and Mostafa, 2010).

Conclusive research results have confirmed that architecture students exhibit higher spatial abilities and generally learn more visually and actively. Recent research encourages educators to formulate their curricula and modify their teaching methods to accommodate the learning styles of their students (Smith and Dalton, 2005). Most of the academic architects teaching the students, follow their own ideology for teaching, leaving out the more traditional approach, thus limiting the learning experience and ideas of the students to their singular perspective, which later need unlearning to fit into a more plural adaptive approach towards design. This is what needs to change. This is what should change for a social and culturally sustainable future of the country (Mostafa and Mostafa, 2010).

3.9 The Present Needs of Architectural Education in India

In the present-day situation, architectural education should lead to understanding of the change that is taking place in the surroundings, i.e., society. A number of new types of knowledge need to be integrated into the education system like how to create environments that are for the poor section of the society, how to create designs that complement the environment around it, how to include the users into the designing process

and how to implement such decisions. Experiential learning is a method that helps the students learn from their own experiences, instead of being passive listeners in the theory classes. Through active and experiential learning, the students will be subject to higher order thinking that will help them to analyse, synthesise and evaluate any situation, and they will find the best way to deal with it. In classes of history of architecture or principles of architecture, the students should be given small exercises so that they may process the knowledge and their understanding of it into the exercise, this will help them to understand and remember the lessons better (Salama, 2012).

Critical pedagogy makes the teachers as the active providers, and the students as the passive recipients of knowledge. In this process, new knowledge is produced through interactions and question and answers between the students and the teachers. This process is viewed as the one which makes the students question the domination of the subject and pushes them towards critical thinking, where they discover the links between their topics and the social circumstances that are relatable to them. Transformative pedagogy is considered as a part of critical pedagogy process, and is centred on critical enquiry and knowledge acquisition of the students while being able to relate it to their surrounding environmental issues. Appreciative inquiry is important for students to apply in their learning. Appreciative inquiry means to find out what is working instead of the general inquiry of what is the problem and what is wrong in a particular process. Appreciative inquiry will give the students a first-hand learning experience of what to follow and which way to proceed with their work (Salama, 2012).

Lefebvre had conceptualised a triad having three parts, namely, conceived space, perceived space and lived space. Such perceptions of space and user interaction can help students to approach design critically. They are explained by Brown (2020) as follows:

1. Conceived space – this is the space as in the imagination of scientists and designers. It is a product of how they visualise a space according to its supposed usage. This space is materialised by people who are in power to make it happen, and bring their visions of public usage and movement to reality.
2. Perceived space- This space culminates out of usage, where people are in daily movement and out of their needs, and their patterns of work, these spaces get their shapes.
3. Lived space – This is the unconscious, non-verbal space, directly in relation to the imagination of human beings, as per their idea of perceiving it, and have lived in it. For example, an area in vicinity of certain other areas, may become the focal point of all the other areas in its vicinity, as per the living experience and perception of the humans who lived in the vicinity, and have collectively used the area.

To ensure that the students have an idea of how to build a space that falls in Lefebvre's triad, i.e., lived, perceived and conceived, certain classes should be made mandatory in their curriculum. These classes, according to Salama and Weidmann (2012) are stated as follows:

1. **Introduction of theoretical frameworks in lecture:** The student should be made aware of their role in enhancing the social sustainability, and so they must learn about the triad of spaces, and this framework must be introduced in the curricula as early as possible.
2. **More extensive courses about ecological design:** An ecological course is a must, as students of architecture must know the different construction techniques and the building materials that would help bring our ecological sustainability. They must have seminars, where they bring out new ideas and must be taught about grey water usage, district cooling, heat pumps, etc.
3. **Environmental behaviour studies:** Students must learn about different built environments through observation techniques. The course can be taught in groups, where each group focuses on different range of buildings and public spaces.
4. **Reconfiguring the direction of design courses**: Tasks should be given to students to enhance their skills by using images. It can be focussed on concrete buildings or open public spaces, or even other forms such as film making or stage designing to give them a more conscious idea about image making.
5. **Promoting integrative design projects in studios**: Design problems and briefs should not be over-simplified to the students, but must be left upon them, so that the students may integrate their knowledge from all the other subjects taught, and implement them correctly in their design.

The right knowledge should be identified and made available at the right moment. Design pedagogy in India could be clear, sharp, focussed, decisive, and self-reflexive. The subjects taught could be formulated in a way that the students may understand it with the lived experience, instead of modulating it in the jumble of theoretical exams and mugging up to pass. Certification could be awarded on the basis of professional-expertise in the real-world scenario rather than meaning less memorising and regurgitating in exams and submissions which do not add up to anything. For that reason, incompleteness in architectural education is necessary, to leave the students curious for more knowledge (Badrinarayanan, 2016). It should be possible to adopt a more learner-driven, integrated approach to learning pruning all the irrelevant unnecessary and duplicate workload from the curricula. The smugness of 'customer satisfaction' should be taken over by the earnest perseverance of students to learn more about the endless scope of architecture and its application in the real world. Design education could graduate from its present role of problem solving and indulging the privileged, and tackle larger issues plaguing society and the planet (Badrinarayanan, 2016).

In architectural education today, hardly any importance is given to the traditional knowledge acquired from the previous generations. The knowledge is not related to the skills and crafts used on the sites, but are marginalised to theories taught within the classroom. Students of architecture today are not being skilled with the knowledge relevant to our living conditions (Badrinarayanan, 2016). Just as traditional wisdom is marginalised in architectural education today, so is the acquisition of skills confined only to learning how to draw, without relating this to the skills of craft or of building construction. The link between memory and thought is being severed, and the possibility of learning from one's experience

is being drastically reduced. The students are developing and investing their skills in reproducing ideas and forms which are mere lifeless imitations (Badrinarayanan, 2016). How the various contemporary interests – such as tradition, identity, modernity, vernacularism, post-colonialism, poverty, sustainability, globalisation – originate within architectural curricula and how these interests act as drivers for studio projects are some of the key questions today (Salama, 2018).

The design process consists of three phases, namely, imagining, representing and testing (Zeisel, 1981). These three phases can be broken down into four stages as follows:

- The first stage is where data is gathered through briefing, case studies, and site study.
- The second phase is where concepts and designs are imagined.
- The third phase is where the corrections and eliminations are done, and lastly,
- The fourth phase is where it is reviewed by the public.

Today, architecture is changing at a drastic pace, where the students of architecture must train their minds to match the pace of change, not only from the aesthetic point of view, which is an intrinsic part of architecture, but also from the conceptual point of view, which forms another intrinsic part of architecture, and this can be achieved through a proper methodical design process. Of this process, ideation (idea generation and evaluation) is the most significant aspect from the viewpoint of creativity and, unfortunately, is the most unelaborated phase of the architectural design process in general, and the pedagogical design process in particular (Peshwe and Chakradeo, 2010).

3.10 The Needed Change in Process

The students of architecture have been trained traditionally to develop manipulation skills from intuition, reflective observation and concept formation. The real need of the students to carry out research, go through experiential learning and to interact with the reality of the occupation has not been emphasised enough. The present architectural education system socializes its members into a predominantly artistic paradigm, based on their subjective judgements, intuition, personal feelings and imagination, at the cost of their social and professional responsibilities (Salama, 2008). Due to this approach the future architects lack the cultural and societal context. The needed change in the curriculum is for addition and development, not for any replacement or omission. Traditional teaching practices have contributed to the view of architecture as an art-based profession, oversimplifying other critical views of it as a knowledge-based or research based educational discipline or profession (Salama, 2005). In response, current discourses have heavily emphasised the value of knowledge acquisition and of the introduction of research-based pedagogy (Fisher, 2004; Groat, 1982).

Knowledge can be analysed in two different ways, a general knowledge and another local knowledge. The general knowledge can be called as horizontal knowledge, and the local knowledge can be called as vertical knowledge, and a good combination of both is needed to learn architecture in a proper manner. General knowledge is about everything general, a

universal knowledge about all countries, their history and culture, while the local knowledge is about one's history, surrounding and culture. The general knowledge has to be incorporated in one's local setting which is an important task, but can be done when taught properly. One must know their local knowledge very well to learn properly about the general knowledge (Chakradeo, 2010). Another point of concern is that the subjects taught in the present day in India, are rigid and outdated. A number of them like survey, levelling, classical western history of architecture and mathematics need to be modified or removed from the curriculum. The experience of the site visit is nearly absent from it. A number of subjects need to be re-evaluated according to their relevance and importance in the present times (Desai, 2006).

In the modern times, education of architectural profession is one of the aspects that are crucially responsible for the socio-cultural health of a place and the people. To the present day, architecture is one of the last choices of the students of India, while medicine, technology, engineering and information technology form the lead. It is useful to know that the schools and colleges of architecture in India are situated within a certain statutory, regulatory and supervisory framework as demonstrated in Figure 2. The Commonwealth Association of Architects (CAA) is a body that recognizes certain schools from once colonized nations all over Asia for the purpose of practice in the United Kingdom after giving professional exam. The Directorate of Technical Education (DTE) is the funding and controlling body at the state level. The AICTE and DTE are the bodies concerned with the recognition of schools of architecture and supervision of quality of education. Thus, curriculum is more content based, and pedagogy is process based. Multi contextual understanding of a given society and its high school education help in forming a curriculum. However, creativity, imaginativeness, awareness, sensitivity, humility, competence, etc., are the unwritten goals of any pedagogy (Desai, 2006). One of the major questions today is if the architectural pedagogy trains the students to think and design for the special population that forms a major parcel of the society, the old, the poor, the children and the under-represented. Such design demands for multiple types of knowledge, presence of which is doubtful in the curriculum (Salama, 2005).

A sense of adventure that is associated with the process of discovery need to be capitalized by both the students and the teachers in the architectural learning. It is then that the exercises will not be repeated year after year and every time the learning may become a new journey of the individual, both the teacher and the taught (as mentioned in section 3.7.3). Educators tend to offer students hypothetical experiments in the form of hypothetical design projects where many contextual variables are neglected. In this respect, experiential and action learning should be introduced. Real life experiences can provide students with opportunities to understand the practical realities and different variables affecting real life situations. Typically, educators focus on offering students ready-made interpretations about the built environment rather than developing their abilities to explore issues that are associated with the relationship between culture and the built environment. When they do, they place emphasis on one single culture, which is their own (Salama, 2005).

3.11 Comprehensive Discussion

The literature studied maps the journey of architectural education, from the very beginning to as it is known today in India, the different changes it has been through and the many new topics that have been added to it or have brought about the changes. It also identifies the many differences that is present in the architectural curriculum all around the world, as seen through experiments and narrated by the experts. From these many topics, the different levels of evolution that architectural education has faced can be known. How, and for what reasons at a point of time, architectural education had been introduced in India has been enumerated. The journey of architecture as a profession is age old in India, but the cerebral form of education of the field that was introduced in the colonial era in 1913, made many changes to the curriculum being taught (as mentioned in section 1.3.2). Alongside, there were changes made in the organisational levels, to ensure the maintenance of the profession and the professional degree in a particular manner. Today, different subjects have been introduced with reference to the needs of present days, being taught through varied mediums in different parts of the world, the need for a new movement to push Indian architectural education in similar path has become evident. This movement is the decolonisation of architectural education. The topic of decolonisation of education is very relevant in all the countries which at one point of time or the other, have remained as colonial bastions of the West (Walton, 2018).

Every such country today faces the need for cultural sustainability. Along with cultural sustainability, comes the topic of social sustainability. Architects, through their professional responsibility towards the society, need to be trained to be aware of how their work will affect the people, the environment and the society as a whole. A number of experts have talked about this, explaining how today's mechanistic pedagogy is drifting away from this point of view, and making the curriculum more and more fragmented. In this fragmented curriculum, the students of architecture have difficulty, relating the lessons taught in the theory classes to their design assignments (Salama, 2013). The design assignments are led upon the sole basis of concepts and artistic views. The students of architecture in India, hardly get any exposure to the reality of the site, the users, or their needs. The cultural and social backdrop for the design is equally neglected in the curriculum (Desai,2006).

In the production of space, the power has shifted from the architects to other stakeholders such as the promoters, developers and financial sectors. The percentage of those who can afford the services of an architect is low (Gamez and Rogers, 2008). The professional architects are steered by the economic angle of the profession, as detailed in section 6.4.1., thus leaving out sections of the society who depend on the promoters, developers and themselves for creating their space. This situation can be improved by introducing some programs in the professional field. In 2005, in San Francisco, a national campaign called 'The 1%' was launched by Public Architecture. It challenged architectural firms to focus 1% of their working hours to pro-bono services. This program focussed on the firms, rather than individual professionals because the policies of the firms are crucial in ensuring that it is possible for the individuals to undertake the responsibility of the pro-bono work (Peterson, 2008). Such programs can be introduced in India, so that more people can access

architectural professional help. 65% of the population in India belong to the rural areas, architectural educational institutes should focus on improving the formally trained architects to become informed man-power in these rural areas, so that the rural population may access their services (Gupta and Ashtt, 2020).

These problems need to be addressed through a change in the curriculum, through the inclusion of certain topics and subjects, not only as mere electives, but as compulsory topics that need to be studied by all. The coloniality left behind in the curriculum, where the students still study the history of architecture of the Western countries, and the works of the pioneers of the West, but are not fully aware of their own cultural legacy, the vernacular traits and architectural marvels of their own land, needs to be addressed. The teachers in the schools of architecture need to accept their role and responsibility in this activity and take part in changing the direction of the curriculum from a very job-oriented mechanism to a goal-oriented mechanism. The students need to understand that the architects do not solely serve one single section of the society. The dominant culture, where architects work for only private ownerships needs to be challenged, and the holistic view of the society and its various parts need to be included in the vision of the future architects of the nation.

A lot of changes have occurred in the social and cultural spheres of the country, but the curriculum of architectural education has not been updated accordingly. Few changes have been made to the original curriculum that had been drafted in the 70s. Modernity has been brought in and introduced as a solution for most of the problems, where the students of architecture have been asked to follow the work of the master architects. This has veiled them from the real problems in the field (Desai, 2006). The difference between the curriculum that is practised in the Western countries today, and that in India, shows the gap that is underlying this problem. The study of built environment space, the users, their needs, the appropriate solutions for the modern-day problems have not been included in the curriculum in India, as opposed to that in the West. This needs to be changed. A major change in the curriculum, with inclusions about the local culture and society, with the basis of global ideas can solve a number of problems that India is facing today, in terms of social and cultural sustainability development (Badrinarayanan, 2011).

3.12 Conclusion

Globally, trends in architectural education have shown that while the students of architecture may be prone to certain aspects like aesthetics or technology, care has been taken that trans disciplinary learning makes them competent in all aspects. However, even with all the precautions taken for holistic learning, the topic of sustainable development and sustainable communities are yet difficult to be introduced in to the mainstream curriculum. At global scale, over the last few decades, the architectural curriculum has not been subjected to much change. The schools indulge in professionalism, and the students do not get much chance to learn by the trial-and-error method. In other cases, the external tutors help the students gain knowledge of practical work, but in such cases, the external tutors often are not aware of the latest trends and techniques in architectural pedagogy,

and thus, ultimately there remains a lack of coordination that in turn affects the long-term direction of the course.

The lack of coordination also remains between the topics taught in the theory lessons and the practical assignments given to the students. This gap in knowledge gradually increases, as with the advancement in studies, the students cannot relate to the real-world problems, as they have never been prepared for them. They assimilate the discussed theoretical ideas and remain unable to see the topic as a whole. Their real-life-problem solving abilities are subdued, as they involve themselves with assignments and projects based on hypothetical situations. Collaborative learning is best affected by the two major theoretical factors, constructivism and socio-cultural approaches. Students are encouraged to learn not only about the subject but also general thinking in proper collaborative learning approaches. Hence collaborative learning is the key to better understanding and more exchange of knowledge when it comes to finding design solutions in the studios. The social and cultural aspects should be introduced through collaborative learning to the students so that the future architects develop a better sense of responsibility towards the society and become ecologically responsive.

While these needs for changes in the curriculum have been realised, the curriculum, however, has not been appropriately updated for over 20 years. This poses a problem, as the students cannot thus update themselves according to the need of the hour by following this curriculum. To change this situation, first we need to realise that study must not be confined to the classrooms for architects. The built environment and training for critical thinking can help the students analyse and solve social, political, environmental, cultural and technical problems. The curriculum has driven students towards sustainability, but the topic itself has been limited to the environmental sphere in the curriculum. The social and cultural sustainability is yet to be properly accommodated into the curriculum on a global scale.

The journey of architectural education has evolved over a century in India as well. The history of India has been marred by colonisation by the French for 280 years (as mentioned in section 1.4), Dutch for 225 years (as mentioned in section 1.4), Portuguese for 451 years (New World Encyclopaedia, 2022) in parts and most extensively the British, for nearly 200 years (as mentioned in sections 1.4 and 3.2). Along with the colonisation process, the native style of living of the Indians have also been changed, modified and adjusted from time to time, making the architecture evolve into newer styles. It was due to need of deciphering plans sent down from London, that architectural education in the Western form began in India. Previously, owing to India's vast and glamorous architectural history, architectural education had been provided in the form of apprenticeships. The cerebral methods of learning architecture started in the British period, in the late 19th century. The journey of architecture, however, quickly took a separate path after India gained independence. In an attempt to move away from the colonial influence, the architects confused themselves and the users with the ensembles of traditional and contemporary design, that in any way were ultimately not sufficient to the client's purpose.

Architects today, are stuck with the contemporary work of the 19th century, done in the western world. The education system is focussed on creating the perfect practitioners who will build the most iconic buildings. As a result, the major cities of India are filled with high rise buildings that look no different from the buildings in the major cities in the other parts of the world. The fabric of the city remains in shreds as adjacent to these massive buildings that draw upon major amount of energy, people from the slums and squatters struggle, as the most basic facilities are unavailable to them. The fact that the architects are not professionally perturbed by such development of events is worrisome. It only proves how much the professional architects of contemporary India lack in their social and cultural responsibility. Looking deeper into the problem, it seems the problem begins at the education system, which fails to put in this sense of responsibility in the students.

Though architectural education in India is structured through organisational hierarchy, which makes it much more systematic and arranged, the problem still lies in the core, as the curriculum lacks the coordination that leads the students towards a holistic approach. While the organisational hierarchy could construct and reconstruct the curriculum in their different levels, thus making sure the students don't miss out on any of the important aspects of architectural education, the system simply relies on the overall council to make the important decisions, without trying to improvise it, or make any useful additions to it. This leads to several questions that remain unanswered. The questions are categorised and stated as follows:

Social and Cultural Sustainability

1. Can the 17 United Nations Sustainable Development Goals help improve the current socio-culture conditions of India?
2. Does the architectural fraternity of India not realise the lack of social and cultural responsibility?
3. Have the professional architects accepted the dominant culture of selective user groups as their only field of professional responsibility?

Role of Council of Architecture and Architectural Education in India

1. Does the Council of Architecture not include all segments of the society into the user group?
2. Does the Council of Architecture not realise the importance of social and cultural sustainability in the curriculum?
3. Does the Council of Architecture ensure the comprehension of the importance of social and cultural sustainability amongst the faculty members through training and research facilities?
4. Does the Council of Architecture encourage faculty members to improvise on the set curriculum and introduce contemporary topics of prominence such as social and cultural sustainability?
5. Does the Council of Architecture leave scope in the set curriculum for Environment based learning for the students?

Architectural Curriculum in India

1 How do the faculty members interpret the social and cultural aspects of the set curriculum?

2 How much gap remains in the theory lessons and the practical assignments?

3 How does this gap affect the students' comprehension of the topics?

4 Do the students get a chance to reflect on their environment-based learning experiences in the curricular projects?

Decolonisation of Architectural Education

1. Is the West-centric curriculum encroaching upon the cultural heritage and local knowledge of vernacular architecture?
2. Is the curriculum suffering from a colonial hangover, preserving the Europe-centric ideas which do not serve the present Indian society and culture?
3. Is architectural education in India lacking a sense of identity?
4. Can a purging move in the form of decolonisation of architectural education in India help the curriculum regain a form that will be more suitable to the social and cultural needs of the present day?

These questions can be best answered by the pedagogy experts in the field of architecture in India, and the faculty members. Surveys will be conducted in the form of semi structured interviews and detailed Questionnaires with each group respectively, and the analysis of the answers can lead towards a better comprehension of the problem and a probable solution to it.

Chapter 4:

Research

Methodology

The chapter will open with the introduction, where a research 'onion' will be presented. It will outline the time horizon of the research, the research strategies, the methodological choice, the research philosophy, and the approach to theory development. Details of the research philosophy and epistemology will be explained next followed by the context of the research and the research approaches. The research design will be explained, backed by the information gathered about the study, justifying the choice of theory. This will be followed by the research methods, enumerated in the order of application. The research work comprises both qualitative and quantitative research methods. The different aspects of research will be explained in detail. The two different qualitative comparative analyses that need to be undertaken will be enumerated. The result of this analysis will help in comprehension of the present condition as per the problem statement. This chapter will be followed by the details of the quantitative data collection and analysis.

4.1 Introduction

The previous chapters have established the need for social and cultural sustainability in architectural education in India. The role of decolonisation of architectural education has been discussed. This chapter will begin with the central questions of this study. The four questions will lead towards particular methods, for obtaining the answers to them. The choice of these methods, along with the research philosophy, theory development, time horizon and strategies will be described in a hierarchical form in a Research Onion. This will be followed by the research approaches. The methods will be described systematically, supported by the reason for choosing them for this study. The chapter closes with a summary of the framework of research that contributes to the methodology.

The four central questions of this research are stated as follows:

Q1: What is the impact of Council of Architecture on Architectural Education in India with reference to Social and Cultural Sustainability?

Q2: Does Social and Cultural Sustainability exist in curriculum and ethos of schools of architecture globally and in India? If yes, how?

Q3: How is Social and Cultural Sustainability being addressed in traditional lectures through different pedagogical concepts?

Q4: How can social and cultural sustainability in architectural education in India be addressed through the approach of decolonisation of education?

The research is concerned with the perception of the topic of social and cultural sustainability and its importance to the various stake holders, i.e., professionals, students, teachers, members of the regulatory body in India. For a holistic comprehension of the situation, it is best to have a global perspective of the same. Different pedagogic approaches that may help in establishing the importance of social and cultural sustainability in the curricula will be studied to find the one that suits best. The perception of the background theory of 'Decolonisation of education' by the stakeholders will be questioned, for clear ideation of whether the theory may be well accepted in Indian curricula. Since so many

different questions and approaches are involved, the research needs to have a clear methodology that will help in reaching the research objectives.

4.1.1 Research Onion

The aim of this research is to inculcate social and cultural sustainability in architectural education in India. There are four different questions, associated to the four objectives for this research to achieve the aim. Depending on the needs to achieve the objectives of a research the approach changes and so does the research methodology. Before expanding the methodology for this particular research, the difference between methods and methodology must be enumerated. Research methods are a group of tools of data collection which are composed of surveys, interviews, questionnaires and more, according to Castro, Kellison, Boyd and Kopak (2010). On the contrary, research methodology has been defined as 'the overall approach to the research process from the theoretical underpinning to the collection and analysis of the data' by Collis and Hussey (2014).

Methodology consists of the different methods that are best suited to the research, arranged in a sequence so that the objectives and aims of the research can be achieved easily. The road map becomes more visible through the research onion, that details out the techniques and procedures, time horizon, strategies, methodological choices, approach to the theory development and philosophy. The research demands a complex design that will include more than one method. To map the path to be taken by this research, the research onion has been used. This is a clear method, inflexible and orderly, thus easy to follow without digressing. Following the onion model, the relevant research methodology areas will be explained, moving inwards from the outer layer.

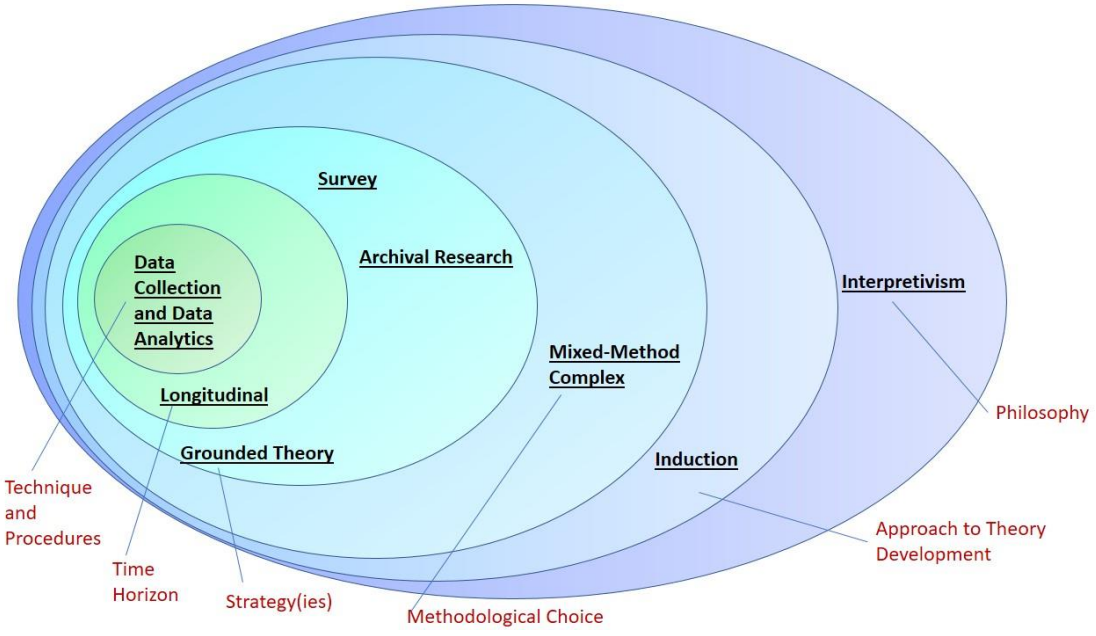


Figure 4.1- Research Onion adapted from Saunders, Lewis and Thornhill (2019)

4.2 Research Philosophy

4.2.1 Epistemology

Epistemology is the theory of knowledge, or more elaborately, the belief about how one may come to know the world. In research, different types of data are needed, which need to be obtained through different methods. The methods and types of data most suitable for particular research define the epistemology for it. This research is related to how social and cultural sustainability is perceived by the different stakeholders. Their varied perceptions of the topic will provide an outline of the reality. Working with such varied perspectives and multiple accounts of the reality makes the epistemology of the research to be subjective. Subjectivism asserts that the reality is what people see, feel and experience. It is how the world, truth and knowledge can be represented. (Gemma, 2018, Howell, 2013).

The first step of testing the hypothesis is to check the global perspective, whether the topic is adequately present in the curricula of premium architectural schools around the world. Two sets of similar surveys will be conducted, one in India and the other on a global level, regarding the depth, intensity and the aspects of the topic being involved in the ethos of the schools of architecture. The results of these surveys will be compared. The next steps of the research will depend upon the results of this first survey.

4.2.2 Choice of research philosophy

The topic of research is the incorporation of social and cultural sustainability in architectural education in India. The idea is to make the students of architecture in India aware of the varied prominent and subversive social and cultural scenarios that prevail in India, and that need to be considered and sustained in their designs. The differences among people, their social and cultural backgrounds and how much that affects the design of an architect, is an integral data needed in this research. Alongside, how in different parts of the country different approaches are being undertaken in schools of architecture is what determines the further parameters of this research. The subjective data related to the social phenomena plays the most important role. Hence, for research philosophy, Interpretivism suits best.

According to the interpretivist approach, it is important for the researcher as a social actor to appreciate the differences between people. According to Collins (2010) interpretivism is

"*associated with the philosophical position of idealism, and is used to group together diverse approaches, including social constructivism, hermeneutics and phenomenology, approaches that reject the objectivist view that meaning resides within the world independently of consciousness*". Interpretivism allows the use of multiple methods to reflect different aspects of the issue.

In interpretivism, the meaning usually emerges at the end of the research process. The positive aspect of interpretivist research is that the cross-cultural differences can be understood at great depth. It usually brings out very good results from the primary data collection, as the data obtained is detailed and honest. Phenomenology is a noteworthy variation of interpretivism. Phenomenology is "the philosophical tradition that seeks to

understand the world through directly experiencing the phenomena" (Littlejohn and Foss, 2009). The research philosophy was mindfully selected as the study involves cross-cultural perspectives of several stakeholders belonging to a multi-cultural nation, and navigates over the journey of architectural education in India over the time, and how it affects the present situation.

4.3 Context of Research and Research Approaches

As established in the previous chapters, this research is set in the context of social and cultural sustainability in architectural education, how it is being dealt with in over 400 architectural institutes spread out over the vast country of India. A largely qualitative approach has been adopted to explore the present scenario of this topic both in India and the concomitant situation all around the world. The results are backed by inductive reasoning. Through inductive reasoning, specific observations and measures are taken, patterns and regularities are noticed which lead to formulation of tentative hypothesis that can be further explored (Thomas, 2006). Data is collected from various sources using different appropriate methods. The collected data, which primarily consists of the triangulated views of the various stakeholders, an accurate conclusion can be reached for the hypothesis.

In the preliminary stages of the research, to understand the background theories, the idea of social and cultural sustainability, the history of architectural education around the world and that in India, raw textual data was needed to be condensed into summary format. Clear links had to be established between the research objectives and the summary findings that were derived from the raw data. Lastly, a framework has been developed that encompasses the underlying structure of experiences and processes that were evident in the raw data (Thomas, 2006).

The latter part of the research was based on a deductive approach. The deductive approach can be explained by the means of hypotheses, which can be derived from the propositions of the theory. Contrary to the inductive approach, deduction is based on a pattern that is tested against observations. The latter part of the research is quantitative in approach, and thus the casual relationships between the concepts and the variables were needed to be explained. To do so, the concepts need to be measured quantitatively, and the research findings were needed to be generalised to a certain extent.

4.4 Research Design

4.4.1 Methodological Choices

The research Is divided into two parts. The first part of the research is based on qualitative approach, the second part is based on a quantitative approach. Since the research encompasses both of these approaches, a complex mixed method design has been adopted. For the different research objectives to be achieved, different sets of data need to be analysed. The data sets need to undergo rigorous methods of collection, analysis and interpretation. The triangulated data will then be merged to form the hypothesis.

This particular study encompasses numerous data sets over a prolonged period of time. The information from the past times builds upon the historical background of India, for the present research to take place and show the path for the future endeavours of Indian architectural education. Hence the following methods will be applied:

1. Meta-synthesis of data,
2. 2.1 Content analysis,
   2.1 Comparative qualitative analyses and
   2.2 Detailed content analysis.
3. 3.1 Semi-structured interviews,
   3.2 Qualitative analysis.
4. 4.1 A questionnaire survey, and
   4.2 Quantitative analysis.

The first two methods are used in the first part of the research, the last two in the second part.

4.4.2 Choice of Strategies

As mentioned in the research onion, there are multiple choice of strategies for this research. As the study encompasses various topics which lead from one to other in an emergent form, the different strategies will help to determine the best methodological approach suited to the different phases of the study. The three different strategies chosen are grounded theory, archival research and triangulation. While the first two strategies will be used in the first phase of the research, the last strategy will have a major and diversified role in the other three phases.

Archival research refers to investigation of documents and textual materials, that have been created in relatively distant past, which illustrate the ideas, events and individuals of the earlier times. Archival research strategy can be further divided into different routes, one of which is 'new archivalism'. This route emphasises the study of relations between events and organizations, rather than focussing on individual events, individuals or organizations. New archivalism reveals the features of social life from the archival datasets, through interpretive endeavours (Mohr and Ventresca, 2002).

To understand the present-day condition of architectural education, it is very important to know about the beginning of architecture as a profession, and how the architectural education system took shape. While the global perspective of such ideas and events can be acquired from the writings of masters like Vitruvius and Bernini, the perspective of the concurrent and later events and ideas of India are found in the texts written by Banabhatta in the 7th century. The preliminary forms of measurements, principles of architecture, ideation of user group and traditional methods of architectural education can be studied from the archival texts, and subsequent texts based on them, like *The Training of Architects in Ancient India*, by Prasana Kumar Acharya (1922), *Appendix II- A List of Historical Architects with Short Notes on their works*, by Prasanna Kumar Acharya (1946) and *Aspects of Curriculum in the Architectural education of India: A View towards the Philosophy of it*, by

Jaimini Desai (2006). The knowledge acquired from this strategy helps in producing a perspective of the arch that architecture and architectural education have made over time both in India and abroad.

Grounded theory is a strategy mainly used for conducting emergent qualitative research. An emergent method is inductive and open-ended (Charmaz, 2008). Grounded theory strategies start with inductive logic in a study, but they proceed towards the comprehension of emergent empirical findings from the research. This points out anomalies in the data, and invoked imaginative interpretations, pointing the research towards possible theoretical accounts, finally arriving at the most plausible interpretation (Charmaz, 2006). This study encompasses the history of architectural education in India, since 7th century CE, the journey of architectural education in India over the time, ending in the present date. During this long period of time India has suffered through several historic invasions, prominent among which is the particular span of two centuries of British colonization (1757-1947). It compares the education systems from different time periods with respect to the concurrent social backdrop, and the Grounded Theory strategy leads the study towards a probable background theory, i.e., Decolonization of Architectural education, which may help in the achievement of the aim of the research.

Different sets of data will be obtained for this research, which individually play important roles in the study. However, different data sets will be analysed through qualitative as well as quantitative methods. For this research, the qualitative and quantitative methods should be viewed as complementary (Jick, 1979). This combination of methodologies in the study of the same phenomenon can be defined as triangulation (Denzin, 1978, pp. 291). This research has a complex mixed method design and uses multiple sources of data, to find convincing and accurate results. It blends and integrates data and methods of large variety. Analysed data from online surveys and literature study will evolve into a second set of survey questions for semi-structured interviews from experts of architectural education in India and a new dataset will be obtained through qualitative analysis of their answers. Another dataset will be obtained through quantitative analysis of the data collected from questionnaire survey of faculty members from all over India. These two final data sets will be further triangulated to find the most suitable approach to achieve the aim of this research. Hence two different types of triangulations will be used in this research to obtain the results:

1. Theoretical triangulation: different topics that are relevant to the research will be explored through literature study, to form a clear and multi-dimensional idea about the research topic.
2. Data triangulation: Two different types of data collection methods will be used, semi-structured interview and questionnaire.

4.4.3 Implementation of Methodology

The background studies for this research have been developed from interest in architectural pedagogy, and the social and cultural scenario in India. The topics of history of architectural education in India, the vast variance, legacy and cultural heritage and how much of them

have been reflected in the architectural curricula have brought forward a background theory. This background theory directs the research towards questions like ‘what are the works that are being undertaken in countries with similar history of colonisation’, and ‘how the overall topic of social and cultural sustainability is being dealt with in the architectural curricula in the developed nations?’. This forms the initial phases of the study. The methodological choice for this phase of the research is meta-synthesis of data, forming the literature study section of the thesis. This partially serves the third and fourth objectives of the study, which are, to examine how social and cultural sustainability topics are introduced both in studio practice and lecture courses, and to examine how social and cultural sustainability topics can be promoted in studio practice and lecture courses through the process of decolonisation of education.

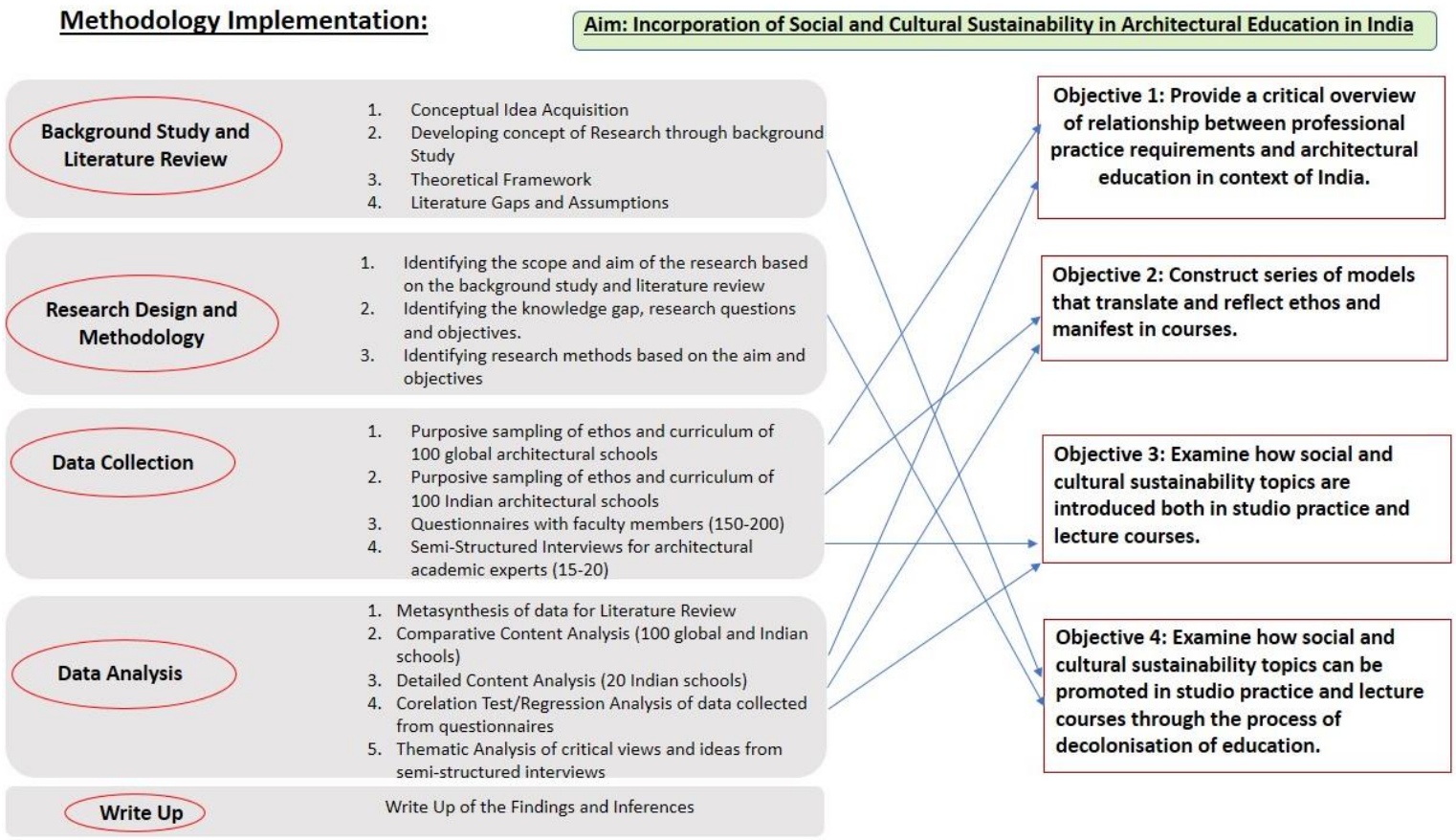


Figure 4.2 – Illustration of method implementation strategy

Once the theoretical framework was established, the aim, objectives, and research methods were developed upon iterative studies. To understand whether there is a gap in perception of the topic in India, it is important to determine how the topic is perceived worldwide, and how it is perceived in India in the present times. The ethos, as mentioned in their websites respectively, of the top ranking 100 schools of architecture worldwide, and top ranking 100 schools of architecture in India were surveyed, and the results were comparatively analysed. The resultant list of Indian schools of architecture was further examined, and the curricula of these schools were studied in detail, scanned for the mention of social and cultural sustainability, to produce a clear idea of the current treatment of the topic in Indian architectural education system in the present times. This formed the first part of the study.

Based on the results of the first part of the study, the approach for the second part was decided, and the choice of methods finalised accordingly. The results of the first phase demanded a clear ideation of the perception of the topic by the experts of India. A number of veteran teachers, the members of the Council of Architecture, the heads of prominent institutes, the academic authors and the practitioners heading government committees formed the list of experts. It also demanded the knowledge of how the syllabus and the topic are interpreted by the teaachers across the country. The daily carriers of the topic to the students must have a clear idea about the topic. Approaches like the semi-structured interviews with open ended questions for the experts, and the questionnaires, with specific close ended questions for the faculty members, formed the core of the later part of the research. These methods altogether served the first two objectives, which are to provide a critical overview of relationship between professional practice requirements and architectural education in context of India, and to construct series of approaches that translate and reflect ethos and manifest in courses.

This process gave an insight into the upcoming steps. Acquiring the feedback on the questionnaire from states across the nation, with varying age range of participants was laborious, but was accomplished within stipulated time. However, interviewing the experts was a more difficult endeavour. The participants belong to different spheres, expert in their fields. Getting the appointment for the interviews was difficult, followed by the second hurdle, where many were reluctant to speak about the role of the Council of Architecture, apprehensive of data leakage, and a fear stemming from local politics and power hierarchies.

The data collection from the interviews and the questionnaires, was done under confidentiality and have been securely transcribed and stored in the University’s data repository. Figure 4.3 will elaborate upon the steps undertaken for the research.

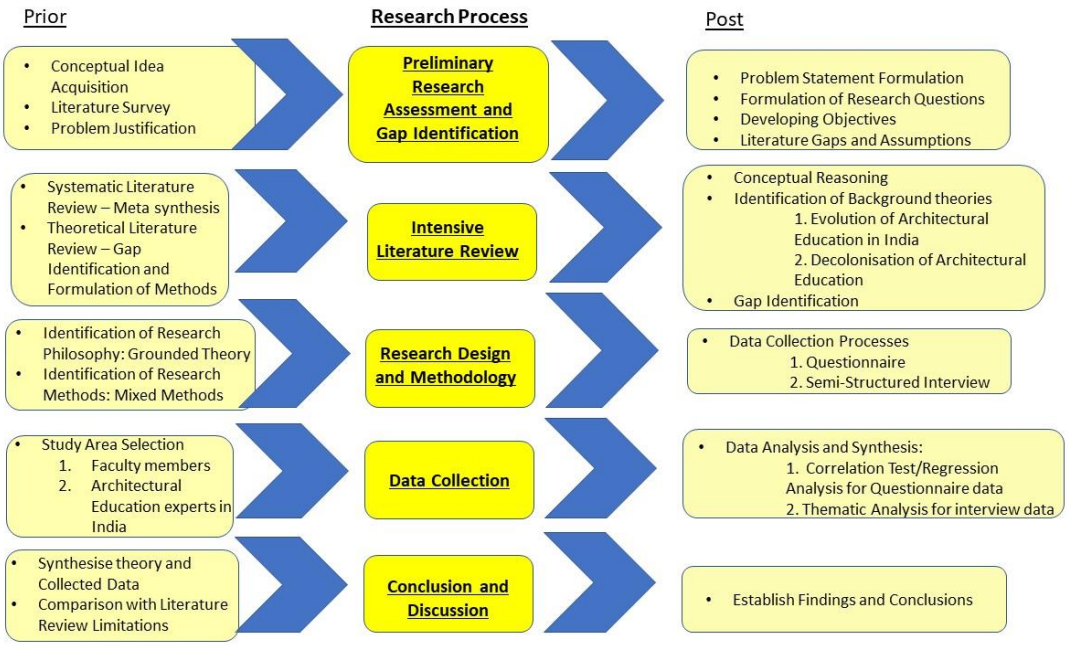


Figure 4.3 - Research Design Details

The steps undertaken as illustrated in Figure 4.3, will be explained in detail in the following subsections.

4.4.4 Phases of the Research

The topic of social and cultural sustainability in architectural education in India is a relatively vast field of enquiry that needs the ideation about several related topics. To understand the scope of the topic in depth, iterative study of connected literature has been done in depth. The research is exploratory in nature. The study has been done in phases, where one phase has led on to the other subsequently.

The different steps of the research have been sequentially organised in a four-phase design, called the Exploratory Sequential Design. The first part comprises of qualitative data collection about the background of the topic and theories that might support it, global perspective for the topic, and its comparison to that in India and consecutive analysis. This is done so that first the qualitative data base may be explored to decide upon a feature that can be or is needed to be tested in the second part. This is followed by the second part, which consists of the scoping of the study for the identification of the feature for testing, through online surveys. The next two phases involve collecting data from different stake holders and formulating appropriate strategies for the same. The data that is collected in these phases is divided in two sets, based on the strategies applied to collect them. One set will undergo qualitative analysis, while the other will undergo quantitative analysis. Lastly, the results are interpreted (Creswell and Creswell, 2018). The research has followed this design step by step. In each phase of the research, the techniques for data collection have been chosen to provide data that is most relevant to the aim of the study. Figure 4.4 shows

the different phases, along with the data collection techniques involved in each stage. Details of each method for data collection and subsequent analysis will be provided in the relevant chapters, preceding the findings.

Table 4.1 – Exploratory Sequential design – phases of research

Phase	Name	Content	Chapter
Phase 1	Meta-Synthesis of Data	Critical review of relevant papers from relevant fields	Chapter 2
			Chapter 3
Phase 2	Scoping Study	Content Analysis of global approach towards topic	Chapter 5
		Content Analysis of Indian approach towards topic	
		Comparative Qualitative Analysis	
		Detailed content analysis	
Phase 3	Qualitative Analysis	Semi-structured interview of experts from India	Chapter 6
		Qualitative analysis of collected data	
Phase 4	Quantitative Analysis	Questionnaire survey	Chapter 7
		Quantitative Analysis of collected data	

4.5 Research Ethics

Ethical approval must be obtained by all postgraduate research students (PGRs) before starting their research, based on the ethics policy adopted by University of Strathclyde. In accordance with the ethics guidelines set by the university, ethical approval was applied for from the University Ethics Committee (UEC). Upon scrutiny of the application, it was approved by the committee (refer to 'Ethics Application' in Appendix 4).

4.6 Summary

The purpose of this chapter is to present the model chosen and adopted for this research, as projected by the research onion (Figure 4.1). The choice of methodology discussed here provides further integral components like the philosophical stance, approaches and choice of strategies and techniques. This research examines multiple perspectives of people who are differently related to the core of architectural education in India. The research proceeds through extensive study of the topic of social and cultural sustainability, its role in architecture and architectural education around the world, and particularly in India. Present architectural education curricula as outlined by the Council of Architecture is examined through the interpretive critical lens of social and cultural sustainability. Due to the colonial background of India, the background theory of decolonization of education is an important element in the study.

As the research examines the contextual perspectives of participants belonging to vastly varied branches of the same field, it is reflective of the implications of testing and

comprehending the holistic standpoint of social and cultural sustainability as topic in the Indian architectural curricula. The methodology has been chosen to reflect upon the ethical implications of conducting research among this varied group of participants. The research aim, objectives and methods have been determined based upon the findings from the literature study.

The online surveys were carried out in the second phase of the research to document the gap between the global and Indian situation of the topic in the architectural education. The aim of the combined research methods in the later phases of the research is to focus on the triangulated views of the varied stakeholders. The following chapter presents the conceptual framework more elaborately in step-by-step manner, with further details about the participants of the surveys.

Chapter 5:

Conceptual

Framework

This chapter comprises the conceptual frameworks that support each phase of the iterative study. Structural details of the reviews and surveys undertaken in the first two phases of the research in perspective of the objective they serve will be outlined. The details of these surveys, along with their analysis will lay the foundation of the consequent phases of the study. This chapter will connect all aspects and map the coherence of inquiry. The objective of the chapter is to produce a detailed framework of the applied methodology. This will lead to the third phase of the study in the next chapter.

5.1 Introduction

The study consists of several steps, which are used to develop the different phases of the theoretical framework. Each phase of the study helps achieve an objective, or forms the foundation of the consecutive phases to be carried out, and the framework is updated accordingly. Critical literature review forms the first phase of the research. Meta synthesis of related data helps in culmination of the research problems. However, it must be noted that literature review is an ongoing process, that has been continuously updated every year during the three years of the research time limit. Based on the critical review, the second phase has been carried out, which consists of iterative content analysis. The results of these analysis help in the determination of the knowledge gap. Social and cultural sustainability in architecture needs to be a part the practice as well as the education curricula. To identify the relationship between the architectural practice in India, and the architectural education curricula, based on the knowledge gap established in Phase 2, Phase 3 consists of semi-structured interviews with Indian architectural experts and qualitative analysis of the collected data. The topic of social and cultural sustainability in architecture is presented to the students of India by the faculty members across the nation. It is thus very important to find out how they interpret the topic. Phase 4 consists of a questionnaire survey and quantitative analysis of the collected data for the same.

5.2 Phase 1: Culmination of Research Problems

The incorporation of social and cultural sustainability in the architectural education of India is a process that would need ideation of many related topics, and formulation of the knowledge gap formed in the architectural education system of India. The culmination of the research problems is a result of critical literature review that encompasses several topics that are directly related to the problem and may form a background theory for the same. The topics have been grouped in categories as follows:

- Society and Culture
- Former educational improvisations
- Previous Tests
- Contemporary Teachings
- Colonial Architecture
- Decolonized Pedagogy.

Society and culture have always helped in shaping the habitable and interactive spaces for humans. The elements of architecture like shape, form and style are influenced by the cultural values of the society, and thus they vary from place to place and over time.

Architecture is a manifestation of the social and cultural environment. Apart from the basic principles, architecture is entwined with society and culture, as the building materials, construction techniques, and design principles are also extremely influenced by culture and society (Koirala, 2016). Hence a detailed study of the topic is necessary to comprehend how it may be incorporated in the curriculum.

A detailed knowledge of architectural curriculum is also needed for the same. Academic architectural education began in France on 3rd December, 1671 at Academie d'Architecture (Griffin, 2019). The inauguration of architectural education was not academic in India. Originating in the Hindu mythologies, the form of architectural education prevalent in India was apprenticeship in the hierarchy of *Sthapati* (consulting architect), *Sutra-grahin* (guide/ supervisor), *Vardhaki* (instructor) and *Takshaka* (apprentice). Old records of works of architects like Achyuta, from the 9th century explain the process further. The Western idea of academic architectural education came to India in the early 20th century (as mentioned in sections 1.3.2 and 3.11). Over this long time, a number of surveys and researches have been undertaken to provide a clear description of how architectural pedagogy has advanced around the world, and how effective new approaches have been. In accordance with the same, the curricula have undergone several changes, and a detailed ideation of this journey to the contemporary architectural pedagogy, both worldwide and in India is important to locate the gaps in the knowledge.

As architecture is a manifestation of local culture, which in turn is shaped by the local history, it is important to know about the historical events of India which may have had an effect on Indian architecture as well as architectural education. The most recent and impactful event is the colonisation of India for nearly two centuries by Great Britain (as mentioned in sections 1.3, 3.2 and 3.12). Architectural styles and building techniques changed during this time. The academic form of architectural education was introduced in India during this period. The architectural curricula presently taught in India may be helped by the inclusion of social and cultural sustainability, supported by the background theory of decolonisation of architectural education, which negates the West-centric form of education, and advocates for local knowledge.

5.3 Phase 2: Determination of the Knowledge Gap

Formulation of detailed idea about the topics related to social and cultural sustainability in architectural education in India leads to the next phase of scoping the study. For the incorporation of social and cultural sustainability in architectural education in India, it is essential to comprehend how this topic is dealt with in the global curricula and what pedagogic approaches are suitable for the same. Concomitantly it is necessary to have a focussed examination of Indian architectural curricula to locate the importance of this topic in it. A comparison between the two scenarios will further establish the knowledge gap. Iterative detailed content analysis may lead to a definitive inference about the need of inclusion of the topic in the curricula.

A list of global schools of architecture was prepared for this study (refer to Appendix 1). The ethos, curricula and student outputs of these schools were analysed to find out if social and

cultural sustainability has been mentioned in any. The ethos and curricula, as mentioned in their official websites, were scanned for the key phrases 'social sustainability', 'cultural sustainability', and 'social and cultural sustainability'. Related information was noted and analysed. The curricula incorporated the topic in several schools, and that was reflected in the student outputs as well. A list of top 100 ranking schools of architecture in India was prepared (refer to Appendix 2). A similar iterative study was conducted for this list as well. The outputs of both studies were compared on the basis of how the topic of social and cultural sustainability is reflected in the ethos of the schools, the curricula and the student outcomes, whether the curricula are dedicated to the topic, whether the students get chances to explore the topic in depth, and the disposition of the curricula towards teaching West-centric knowledge. The result of the comparison is presented in Table 5.1.

Table 5.1 – Output of comparison between Architectural schools worldwide and in India in respect of Social and Cultural sustainability in architectural education.

Topic	Social and Cultural Sustainability in Architectural Education Worldwide	Social and Cultural Sustainability in Architectural Education in India
Reflection	29 out of 100 schools mention social and cultural sustainability in ethos, curricula or student outputs.	17 out of 100 schools mention social and cultural sustainability in ethos or curricula. Student outputs were unavailable.
Dedication	15 out of 29 schools have curriculum dedicated to the topic, in either form of lectures, or seminars, or design exercises, or observation studies.	14 out of 17 schools have hours dedicated to the topic. It has only been dealt within form of lecture classes. Design assignments or exercises do not relate to the topic. Some schools have the topic under elective subjects, so the students can only have access to the knowledge based on the availability of faculty members with specialisations, or the choice made by the board of management.
Exploration	There is a chance for further exploration for students in their studio assignments where they may relate their work to social and cultural sustainability.	The studio assignments strictly adhere to a particular set of topics, with less or no chance for students for self-exploration and interpretation of the topic in relation to social and cultural sustainability.
Disposition	Universities explore the past work and contribution of architects working in the South-Asian region, based on the social and cultural needs of the area.	The curriculum is biased towards the history of Western architecture, the work of the masters, the evolution of styles, etc., with no adherence to the current social and cultural needs,

		or the past work and contribution of architects who have helped the development of social and cultural sustainability in India.
Source	https://www.topuniversities.com/university-rankings/university-subject-rankings/2021/architecture-built-environment?&page=6	https://www.eduvidya.com/Top-100-Architecture-Colleges-in-India

Following the output of the comparison, it was necessary to study the ethos, curriculum and student outputs of the shortlisted Indian schools of architecture, to understand the depth of the gap in knowledge. Upon detailed study of the same, a list was prepared (refer to Appendix 3) with the name of the subjects, contact hours, teaching format and credits allotted to them. Three schools, out of seventeen mention the topic in their ethos, but there is no clear reflection seen in their curricula. Four schools have enlisted the subjects dealing with the topic as elective subject. All fourteen schools teach the topic in lecture format, five of them have practical lessons in the form of observation study and two of them have dedicated studio lessons. The knowledge imparted about social and cultural sustainability is reflected in the design outputs in ten schools.

It can be inferred that inclusion of the topic in the curricula can enhance the awareness of the students about their professional responsibility, as their design outputs show greater disposition towards social and cultural sustainability. However, it is a concern that among hundred high ranking schools, the number of schools teaching the topic is very small. The total number of architectural schools in India is presently 471 (Council of Architecture). How the topic may be widely incorporated in nation-wide curricula, what may be the best approaches to do so, and how that may affect the professional responsibility of the future architects in the long run can be best answered by the architectural academic experts present in leading roles across the nation. The next phase of the study is a semi structured interview of such experts and analysis of their answers.

5.4 Phase 3: Relationship between education and practice

Incorporation of social and cultural sustainability in architectural education can bring about a change in the architectural profession by making the future architects socially and culturally responsible. India is a vast country where society and culture has many nuances depending on the anthropogeography of the citizens. The different approaches that are most suitable for incorporating such nuances, and how they can be included in the architectural curricula can be best advised by the architectural academic experts of the nation.

The semi-structured interview will help in achieving the output of finding a critical view of how architectural education of India has been shaped over the time since the beginning of academic architectural education since early 20th century. It will assist in comprehension of the efficiency and importance of social and cultural sustainability in architectural education

in India. It will also help in partially achieving the first three objectives of the research as mentioned in the previous chapter.

The questions will be grouped in different categories to expedite the analysis process. The sampling techniques used for finding the respondents are clustered sampling and snowball sampling methods. According to the need of the research, different areas of expertise of respondents were categorised, and accordingly cluster sampling was done in the initial stage. A list of experts was prepared and they were contacted accordingly. However, many of them were unavailable, while some of them responded positively. Following this, snowball sampling method was used to reach out to more interviewees through others. Table 5.2 shows the list of interviewees according to their categories, and their profiles and geographic zones in the nation. The collected data was thematically analysed.

Table 5.2 – List of details of interviewees

Role	Code	Interviewee Profile	Geographic zone
Veteran academician	VA1	Female, retired professor.	North
	VA2	Male, retired professor.	East
Head of Institutes	HI1	Male, Head of department, IIT Roorkee	North
	HI2	Female, Head of Department, Manipal University	West
	HI3	Female, Head of Department, D. Y. Patil School of Architecture	West
	HI4	Male, Professor, Vellore Institute of Technology	South
	HI5	Male, Associate Professor, I.I.T, Kharagpur	East
	HI6	Female, Associate Professor, Woxsen University	South
	HI7	Male, Head of Department, Amity University	East
COA Office Holder	COH - 1	Female, Director of Academic Unit	North
Social Activist and Author	SAA - 1	Female, Assistant Professor, IES College of Architecture, social activist	West
	SAA - 2	Male, Associate Professor, SPA, academic author ad critic	North
Academician and Practitioner	AP - 1	Male, Conservation Architect and Academician	West
	AP - 2	Male, Practitioner and Academician	North

Practitioner and Government office bearer	PGO - 1	Male, Practitioner, State nominee to the Council of Architecture, and the Architect member of statutory committees of state government.	East
	PGO - 2	Male, Practitioner, Academician and state government office holder	East

5.5 Phase 4: Interpretation of topic in daily lessons

The architectural academic experts of India can guide towards the appropriate approaches and critical view of the relationship between profession and education, however, the onus of carrying the topic to the students on a daily basis, in a way that it may be easily comprehended and reflected by them in their work, is mostly upon the faculty members around the nation. Council of Architecture has produced a curricular outline, which is regularly updated, and it provides scope for innovation and inclusion of appropriate topics by the individual institutes.

The political map of India is divided into 28 states and 8 Union Territories, and there are 471 schools of architecture scattered among them. A sample size varying between 150 and 200 was chosen for this study, ranging between different geographical locations and age groups. The participants were chosen by convenient sampling. An open-ended questionnaire was prepared, where the participants could provide their suggestions to each question. A pilot study was conducted with a peer, who had experience in teaching architecture in India, and based on the feedback, the final questionnaire was prepared.

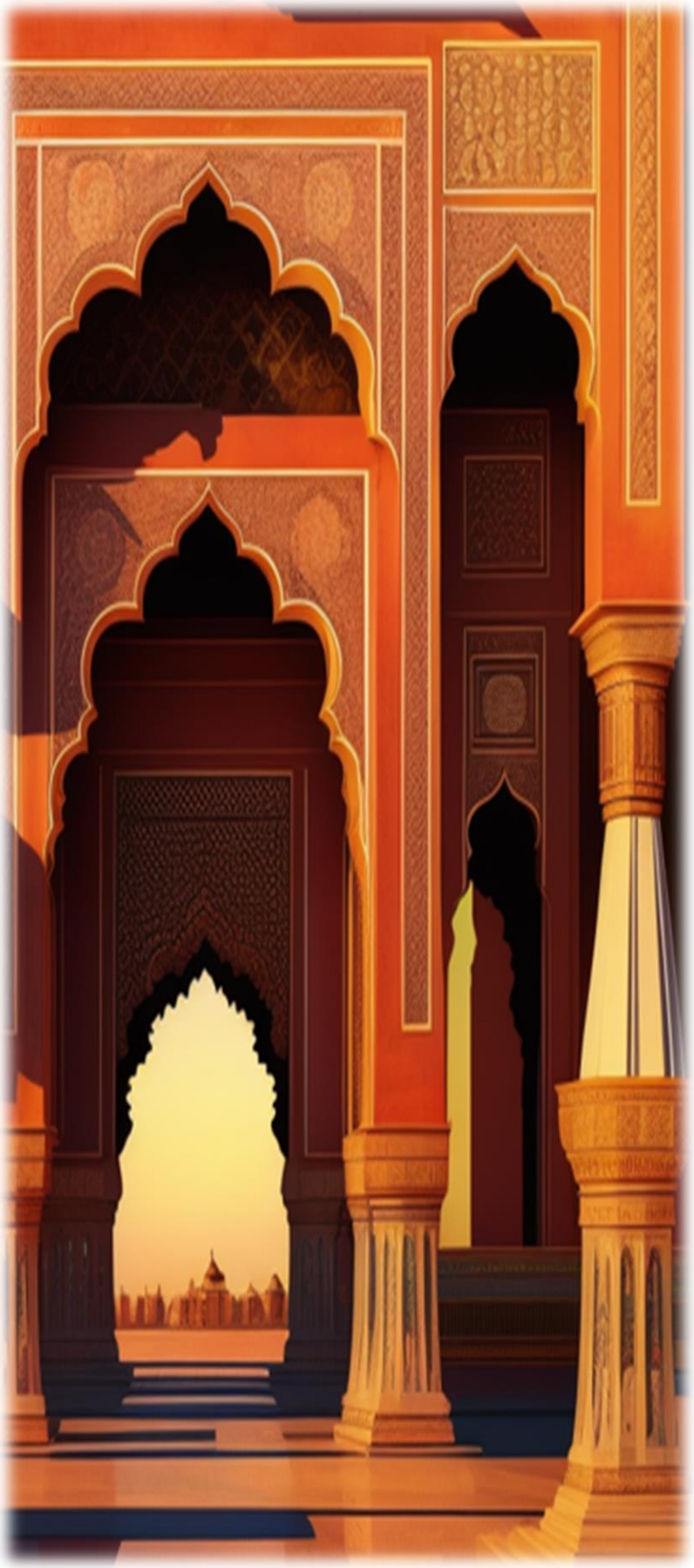
The questions were divided into categories for easy assimilation of the analysed results. This phase of the study will help in achieving the output of identifying the range of approaches that follow certain sequence based on the context and contents of social and cultural sustainability in architectural education in India. It would also partially help in achieving the first three objectives of this research, as mentioned in the previous chapter. The collected data would be analysed using quantitative method of correlational analysis.

5.6 Evaluation

The evaluation of the research, as summarised in part 5.4 and 5.5 forms the last part of the study. A holistic comprehension of the problem, and how to deal with it, with suitable approaches and innovative methods will be detailed post evaluation. The research aims to promote and expedite incorporation of the topic ‘Social and Cultural Sustainability’ in Indian architectural education system, and the evaluation of the study will help advance towards that aim. The following chapters will describe in detail the third and fourth phases of the study, respectively.

Chapter 6:

Qualitative Data Collection and Analysis



This chapter will elaborate on the qualitative data collection and analysis. A series of semi-structured interviews have been conducted with experts of architectural education in India. The expected number of respondents was between 15 and 20. A schedule was prepared that formed the outline of the interview questions, to guide the interview, but which also allowed other relevant themes to develop in the discussion. Thematic analysis of interviews was used to get the needed data based on the theme of the topic of research. The questions outlined the topics of eminence, thus forming an outline based on which the more detailed analysis of the topic from the questionnaire was further analysed (refer to chapter 7). The objective of this chapter is to provide a critical overview of the relationship between professional practice requirements and architectural education through the lens of social and cultural sustainability in context of India. This chapter will lead to the final discussion and conclusion of this research.

6.1 Introduction

This chapter consists of the third phase of this research, which deals with the key players of the architectural academia of India, people who have expertise on the subject, and are directly related to shaping the outline of the subject in varied ways for the students of architecture in India. They are interviewed to understand their perception of the relation between profession and architectural education, how the incorporation of social and cultural sustainability may affect the profession in the long run, and what they think of the role of Council of Architecture in architectural academia.

The semi structured interview had been carefully designed so that it covers all the necessary points, and may probe the interviewee to produce related information and details. The choice of respondents was mindfully done so that perspectives from experts belonging to a varied range of work within the architectural profession, and from different regions of the nation could be obtained, through a holistic approach. Details about both choices have been provided in this chapter. The collected data has been analysed thematically for ease of comprehension, the analysis process and the results will be detailed later in this chapter.

6.2 Semi-Structured Interview Design

The aim of this phase of the study was to comprehend how the present architectural professional and academic situation is perceived by architectural academics. Incorporation of the topic of social and cultural sustainability in architectural education may have a huge impact on how the future professionals may use the knowledge in the professional field in the future; however, that possibility can be best judged by the experts who hold positions to take definitive decisions for or against the incorporation, based on how they view the present situation of architectural profession and academics in India.

Information regarding architectural scenario of India, with respect to academics, profession and the significance of the topic in the present-day situation represents a vast data pool which needs to be categorised for a systematic review. There are many questions to which answers are needed for this study, and they need to be organised in categories, to obtain the best results from this semi-structured interview through thematic analysis. The

different categories in which the questions were divided in the list of questions (refer to Appendix 6) are as follows:

1. Social and cultural responsibility of an architect
2. Architectural education in India
3. Decolonisation of architectural education in India
4. Role of Council of Architecture

The first category aims to understand how they perceive the social standpoint of a professional architect. The demographics of Indian population are vast, and thus, the needs of the user groups greatly vary. As architects as designers of usable space serve the population directly and indirectly, they must have an awareness of the areas that they may influence, and the areas of their concern. This study attempted to understand how the experts perceive the gap between these two areas, and its relation to the responsibility of a professional architect.

The second category aims to explore the opinions of the experts on the topic of architectural education in India. Since the commencement of academic education in architecture in the early 20th century, society and culture have progressed with time, and the needs of the users have undergone massive changes. It is essential to know whether the architectural curricula have evolved accordingly; whether they can keep up with the evolving needs of the users and whether the incorporation of the UN Sustainable Development Goals in the curricula may be beneficial to the curricula, in the experts' opinion.

The third category examines the opinions of the experts about the background theory of decolonisation of architectural education, and whether this approach may help in better incorporation of social and cultural sustainability in architectural education in India.

The last category explores how the experts perceive the role of Council of Architecture as a regulatory body of architectural education in India and notes the suggested improvements.

The questions for the semi-structured interview have been provided in Appendix 7.

6.3 Sampling of Respondents

Holistic comprehension of the best possible approach for the incorporation of social and cultural sustainability in architectural education in India, from the data collected from the semi-structured interviews needed a well-rounded data pool, that could be obtained by reaching out to experts working in different spheres of the architectural profession in India. The key players were identified and clustered into different categories, and approached through snowball sampling.

Table 5.2 lists the different categories and number of interviewees in each category. Choice of each category will be further explained as follows:

1. Veteran Academician – Both participants were septuagenarian retired academicians with thirty years of teaching and professional experience respectively. They have witnessed the evolution of architectural education in India since their studentship, and can provide an accurate account of the same. They have also witnessed the massive change in user needs that has occurred over these decades, and have accordingly detailed scopes and suggestions for improvement in the current architectural education system.

2. Head of institutes – The institutes chosen for this part of the study are some of the highest-ranking institutes in the nation, whose ethos and curricula reflect awareness of social and cultural sustainability. The head of institutes were chosen, as they play an important role in tailoring the curricula of these institutes. The Council of Architecture provides a standard curricular outline which needs to be followed as a benchmark by all institutes of the nation, but the responsibility of detailing of the curriculum falls upon the heads of the institutes or faculty members nominated by them for this task. Hence, they are eligible to provide detailed accounts of how the topic of social and cultural sustainability may be incorporated in architectural education in India, and what approaches are best suitable for the same.
3. COA Office Holder – Council of Architecture regulates the architectural practice as well as education in India. The body has different offices bearing responsibility for the various branches of the architectural field. The participant of the semi structured interview holds office as the head of the academic branch for over a decade. She is knowledgeable about the role that the Council plays in regulating architectural education in the nation, and can provide detailed accounts of how the Council plans to further improve the education system. She can enlist the past approaches of the Council for incorporating social and cultural sustainability in architectural education in India and their results, which is necessary information for this study.
4. Activist and Author – The respondents in this category are academicians, who partake in architectural social activism and critical architectural penmanship. They can provide details from the perspectives of the users belonging to the various strata of the society, and be critical about the academic curricula and approach towards meeting the needs of these users.
5. Academician and Practitioner – The interviewees of this category deftly balance the roles of academicians as well as practicing architects, and thus, can provide an account of the relationship between academics and practice in the present-day scenario of India. They can also provide suggestions about needed changes in the academic curricula, based upon the needs of the professional field from their experience.
6. Practitioner and Government Office bearer – Architectural academics are regulated by Council of Architecture which is a regulatory body in the field of architecture, brought in action by a bill passed in the Parliament in 1972 (Council of Architecture). Hence, there is a vague but definite connection between Indian architectural academics, Indian architectural practice and the government of India. The participants in this category are practitioners, who participate in academia on a part-time basis, but eminently, are well connected to the state government, holding positions and heading committees. They can provide a convergent outline of how the incorporation of social and cultural sustainability can be related to and may affect the future government projects, which will reflect upon the users belonging to the area of concern for the architects.

6.4 Results of Thematic Analysis

The data collected from the semi-structured interview with the sixteen participants provides detailed insights into the present scenario. The data has been coded according to different relevant themes, which will be discussed in detail. The respondents have been grouped according to their field of expertise. Further details about them are presented in Appendix 8. The motive for the semi structured interview was to bring out the nuances between the opinions of the experts from different fields of expertise, so that the gap in knowledge can be identified from their answers. The most prominent topics that were noticed in these discussions have been stated as follows.

6.4.1 Present Conditions

The present conditions of the architectural profession in India must be considered before further venturing into the problem. The opinions regarding the prowess of architectural profession in India in the current times change with the categories, but fresh perspectives for the profession are attained from this discussion. According to the academician and the practitioners, though the architects are the facilitators of the society, the architects are going through a phase of economic struggle. The professionals cannot detach themselves from the social and cultural issues happening around them, but their approach should be multi-disciplinary. Individual contribution of this single profession would not amount to much.

The Council office holder is of the opinion that the architects today need to be aware of what the society expects from the profession, and the profound impact that their action has on the society. The heads of different institutes mentioned how the current position of the architects is subdued by the builders, causing style to precede theory. The lack of responsibility among the professionals is causing the users to question the role of an architect. The professionals are steered by the commercial angle of the matter, and thus their position is being reduced to project managers under the builders. It is becoming increasingly difficult for the small practices to survive in the market. They are constantly underpaid, and the legislative blunder is also to blame for this. According to the legislative act (Section 25, The Architects Act, 1972), the degree and license from the Council only allows the architects to call themselves architects, while anybody can practice architecture in India. The decision-making power is being taken away from the professionals, and they are mostly creating templates. This could change if architects take their roles in the society seriously. Some of the respondents believe the profession to have already collapsed in India.

The practitioner and government official believe it is high time that the professionals carve out some strategic interventions to face the growing challenges. The social activist and authors accept the fact that architecture is an elite profession, and the professionals are struggling to survive in the market due to the common misconception in India that hiring an architect for a project will increase the cost of the project considerably. Through this process, architects are slowly transforming. From being esteemed to be elite professionals, their position is changing to professionals who are irrelevant in aspect of needs of the common users. Architectural services are assumed to be hired only by the users belonging to the high-income group. The veteran academicians are of the opinion that architects need

to be more understanding and motivated to solve the problems for the users, and understand their needs and demands. The present condition of the profession is due to the several drawbacks which are being discussed in the next section.

6.4.2 Drawbacks

The respondents have discussed several types of drawbacks that are rampant in the current architectural scenario of India. These drawbacks have been further grouped into four different categories. They are as follows:

- **Approach drawback** – The different educational approaches have been criticised by the respondents. The academician and practitioners believe that the curriculum is deficient of a method which makes social and cultural aspects a part of the form and structure. Learning about people needs to draw the students out of the studios. Some of the heads of institutes are of the opinion, that the UN Sustainable Development Goals are being perceived individually, which is an isolated approach. Each goal is like a spoke in a wheel, and a holistic perception is needed. The isolated approach towards the goals, or the professional and educational situation needs to be replaced.

  The Practitioner and Government officials agree to this view, saying the isolated approach is leading to an individualistic thought process. In Indian architecture, the sense of community is missing today. The Social Activist and Author points out that there is no encouragement for architectural journalism, which can highlight such topics. The Veteran Academicians noticed that the current architectural education regime seems superficial, as the schools follow distributed outlines, and no further probing is done. The students are confused with introduction of new terminologies, and ultimately the designs lack context. The architectural education needs a new approach altogether.
- **Council drawback** – The respondents drew attention to some drawbacks of the Council of Architecture in India. The Academicians and Practitioners blamed the superficiality of the educational situation upon the Council's administrative thought process. They said the Council is disoriented, and there is an intellectual bankruptcy, where Council has lost touch with the contexts as well as interest of the students. The Heads of Institutes view the work of Council as a mandate, which lacks research and responsibility to keep a check upon the institutes. The teacher's training programs could have better structured contents which facilitates more professionals and teachers to learn from them. Though the Council administers the profession, there is no such accountability for the professionals towards the Council as is the case with other professions like medicine and finance. The students suffer as the Council fails to introduce them to the industry through their curricular guidelines. The Practitioners and Government Officials highlight the several internal issues the Council suffers from, and amidst all, the social and cultural aspects of architecture are neglected by the Council. The authors and activists said the Council's approach towards architectural education lacks social sensitivity and is primarily ontological. More trans-disciplinarity and curricular flexibility should be encouraged by the Council. The veteran academicians agree to this notion.

- **Education drawback** – The academicians and practitioners agree that the topic of social and cultural sustainability is ignored in the architectural education. The curriculum is regimental and oblivious to the present needs. In India, cultural responsibility deals with matters like religions and caste. The schools of architecture do not discuss such topics. The Council Office holder agrees that many of the topics taught are West -centric, but the curriculum is flexible enough for schools to direct these topics in different directions if they wish to. Most of the other respondents do not agree to such flexibility.

  According to the heads of institutes, an identity crisis has been noticed, due to lack of innovation in education. They believe more observational studies need to be included as the architectural training is becoming insensitive. There is no experimentation. The students do not understand the context of India as most of their education is based on theories written by Western authors. Whichever geographical zone the students may study in, they all learn the same standardised content, and the local context is missed. They believe that the architectural education has become digital and software-based. The curriculum lacks the sociological and humanities topics. 'Sustainability' has become a commonly used word, but it has not been included in the curriculum properly. The curriculum needs to evolve, and gain more relevance to the local context. The social and community aspects should not be left out. Cultural study should not be confined to designing temples.

The practitioner and government officials highlighted the lack of topics on social and cultural sustainability in education for all architectural students, it depends on availability of resources. This results in the curricula not considering different kinds of transformations taking place in the society. The activists and authors said that most of the cultural studies are enveloped in the history subjects, leaving very little scope to teach the other aspects of culture in architecture. In the final year, even if students choose dissertation topics based on social and cultural sustainability, it is difficult for them to handle as they are introduced to several new aspects in such a short period. This often results in good research work, but lacks appropriate design approach. The students must be introduced to the epistemological issues regarding architecture.

The veteran academicians pointed out that parts of the curriculum remain unchanged since 1961. Some topics that are standardised today had been started with a foreign context and are irrelevant now. The course curriculum needs evolution. The mere mention of 'society and culture' in the curriculum is never enough.

- **Professional drawback** - According to the academicians and practitioners, the focus is on the materials and products and terms like 'liveability', 'walkability' and 'place making', resulting in production of glass boxes with gold ratings awarded by IGBC (Indian Green Building Council). The social issues remain neglected. The heads of institutes said that the current architectural discourse disrespects the context of human needs. The discourse has departed from the purpose of human well-being towards the economic dimension, where the power is in the hands of the building investors, not the building users. For public spaces, the architects dictate the

behaviour of the users, which is not a socially sustainable approach. The profession is also losing importance as the professionals are shedding off and sharing their responsibilities. The scope of architectural practice is reducing thus. The activists and authors agree to these opinions. The veteran academicians compared the work of the professionals today to how it used to be. According to them, the architects do not consider the needs of the clients, rather the users have to adjust themselves to what is provided by the architects. This distortion is caused by the lack of empathy from the professionals. Society and culture have taken backseats, as the profession is being steered not by the architects, but the builders and promoters.

6.4.3 Needs of the Hour

- **Change in Approach** – All the respondents for the semi-structured interview unanimously agreed that a change in approach is necessary for architectural education in India. The academicians and practitioners advocated for the practice of apprenticeship to be revived in architectural education of India. The students will have a better field experience and wider perspective of the socio-cultural situation of their country. The idea of live projects should be promoted. The students need to be associated with real clients. Interaction with them would be beneficial for the socio-cultural comprehension of the students rather than working on hypothetical projects. Students should have better exposure to seminars and conferences.
  The heads of the institutes believe more innovation and inclusivity are needed in the curriculum. The approach towards teaching must also change. Specialists from different parts of the nation can be brought into the classrooms through online courses. Behaviour studies and interaction with users must be introduced in the design assignments. An overall composite approach is needed, where the relevant lessons of the colonial teachings can be incorporated alongside the indigenous teachings giving equal importance to both. The practitioners and government officials agree to these opinions. The authors and activists also emphasised the need for incorporating observation studies in the curriculum. Introduction of lessons based on cultural history and discussions on mythologies may also be a helpful approach according to them.
- **Change in Perspective** – Respondents from each category mentioned different type of changes in the perspective which are needed for better incorporation of social and cultural sustainability in architectural education in India. Comprehending the expectations of the different parts of the society must be considered as a professional duty. This must be taught in the schools. Isolated perspective towards the UN Sustainable Development Goals needs to change, their interconnection needs better comprehension. Live case studies, better examples and thorough contextualisation need to be incorporated in the curriculum so that the students may take better design decisions for the users. The traditional and vernacular ideas should be better accepted. One respondent (HI04, refer to Appendix 10.4) mentioned how the perspective of the students need better formation as the students in India are very young day scholars, sponsored by their parents, without worldly experiences. Others mentioned how certain subjects like History of

Architecture should incorporate topics like economy, culture and community apart from images of temples and palaces. The veteran academicians mentioned that an architect dealing with human habitation in India must be knowledgeable and have open perspectives about the different societal nuances.

- **Contextualisation** – The respondents from all the categories agreed upon the need for contextualisation. The academicians and practitioners stated the act of thinking global and acting local may not always be the best solution. The ideas that were formulated in the colonial period may be applicable if they fit the context and that should always be noted. The Council office holder said that, based on the curricular guidelines set by the council, the institutes can develop syllabi which are contextual to their region. The Heads of the Institutes prefer the idea of contextualisation to the background theory of decolonisation of education or the general educational norm of standardization. The practitioners and government officials agree with this. The veteran academicians believe that the students will have better contextual ideas about the profession if more practical field work is introduced to the curriculum, where they can interact with cross-cultural clients from different economic backgrounds.
- **Documentation** – Some of the respondents emphasised the need for documentation. The Council office holder said that the Council is developing a program which would help in documenting the social and cultural practices of different regions of India. The program will document the intangible heritages, and how the communities practiced them in the past, which influenced and affected the society in positive ways. The heads of institutes highlight the lack of documentation on India post-independence. According to them the gap in knowledge that is visible in the curriculum has been created by that lack of documentation. Documentation would greatly help preserve the cultural identity in Indian architecture. The Indian case studies should be undertaken and included in the curriculum. The veteran academicians mention how the society and culture have undergone changes in the different regions over the period of time. This change would be easier to monitor if they were documented.
- **Faculty Awareness** – Respondents from every group agreed that the faculty members must be aware of the significance of social and cultural sustainability in architectural education in India. The Council office holder said that trainings for sensitization of the faculty members are regularly arranged by the Council. However, whether they accept that route of thought or not is up to them. According to her, though there is no need for a thorough decolonisation of the curriculum, the teachers must understand the concept and implement it within the curriculum.

  The Heads of the Institutes differ on that point saying the teachers must be trained in that line of thought before they may implement such topics in the classrooms. According to them, the faculty members need more training in India before being eligible to participate in teaching, as the students are dependent on them and how they interpret the curricula. Hence, the faculty members must have a good

comprehension of the concepts of social and cultural sustainability. According to the Heads of the Institutes the Council's infrastructure of faculty training is inadequate. The training sessions do not encompass topics like social and cultural sustainability. The fees for such trainings are high, so the institutes do not send the same faculty members for numerous training sessions.

They agree that the syllabus in each school should be set as such that the faculty members have a scope to speak about the social and cultural sustainability topics, not only referring from theory, but also from practical experience. The teachers must have some practical professional experience which they may introduce in the lessons. The faculty members must go through a constant process of updating and improving their professional skills and knowledge. Faculty development programs conducted by the Council for 5 days are not enough. They should be encouraged to take sabbaticals, and work in the practical field. Proper holistic training for the teachers is necessary to bridge the gap in knowledge.

- **Curriculum Update** – The curricular outline of architectural education in India is set by the Council of Architecture. The Council office holder mentioned that though the curriculum has been updated over time, it is still strongly influenced by the post-colonial materials of study. Council is trying to incorporate the topic of Social and Cultural Sustainability into the curriculum through practical courses and documentation of the social and cultural practices in the different parts of India. This document may be introduced in the theory lessons in the future.

  The heads of the institutes agree that the curriculum needs updating. Incorporation of social and cultural sustainability, along with the current trends of the profession and the local cultures is needed. Students from different regions need to be aware of the local cultures of other regions. They also must be aware of the architectural identity of their own region and across the country. Social and cultural sustainability should be incorporated in the design assignments of every semester, to make the students aware of the situation. The practitioners and government officials mentioned that as the socio-economic structure and demographics of the society are continuously evolving, architectural curricula should continuously be updated accordingly.

  The veteran academicians said recent works of contemporary architecture of India should be included in the course. Concomitantly, the indigenous architectural trends must be contextualised in the curriculum. According to them, social and cultural sustainability is like a grammar to the professional core of architecture. This grammar must be incorporated in the curriculum, and stepped up from year to year. During the first three years, the theory learnt must be applied in the design assignments. By the fourth year, this knowledge will become an integral part of the process. This ingrained learning must be thoroughly done by the second year of architectural training.

6.4.4 Variances

The topics discussed in this section had repeatedly occurred in the discussion with the different respondents. However, the different groups had highly varied opinions about these topics. Their opinions are enlisted as follows:

- **Past Perspective** – The past perspective about architectural profession and education has been described differently by different groups of respondents. The academicians and practitioners mentioned how the architectural craftspeople were limited to a low position of labour class in the colonial period. The post-colonial era brought in changes in the professional status of the architects. Policies were created with a focus on modernization, but over time these policies have boiled down to emergency situation handling. Initially, the designs were thoughtful and user-compassionate. Trend and stake did not precede user comfort. Architecture was modern and democratic. Architectural curricula were oriented round similar thinking in the 70s. In the 80s, architectural education was affected by economic influences. In the 90s, the digital industries interfered with architectural education. According to the heads of the institute's context was respected in Indian architecture in the post-independence era. Sustainable practices were in use in Indian architecture before the term sustainability was coined. That knowledge needs to be revived in architectural education today. Indian history of architecture is rich due to the different rulers and the architectural styles introduced by them. The curriculum should focus on the intangible knowledge from the historic eras, that are still relevant and intrinsic to India.

  According to the authors and activists the architectural curricula has faced many changes over the time. The curriculum has been made flexible as compared to the yesteryears. The veteran academicians agreed that the socialistic aspect of architectural practice was much stronger earlier. Over the recent years that has been destroyed. The curriculum focussed on the contents rather than the language. It was not a commercial approach. It was a user-oriented approach. Now the lack of objectivity and methodology is vivid.
- **Sustainability** – The semi-structured interview revolves around the incorporation of social and cultural sustainability in architectural education in India. Some varied opinions about sustainability were obtained in the discussions. The academicians and practitioners accepted the importance of social and cultural sustainability, but agreed that the sustainable development practices are disappearing from architectural profession and education. The Council office holder agreed that the Sustainable Development Programs can certainly fit into architectural profession and education.

  Few of the heads of the institutes focussed on Sustainability as a topic taught in the curriculum. According to them it leans towards ecological sustainability, and needs to be integrated with social and cultural aspects. The socio-cultural dimensions are often missed out from discussions as their importance not appreciated enough. Others do not accept the goals to be central to architecture. They may be included

as a programmatic reminder of how architecture should be practiced. India should have her own contextual framework for sustainable development.

While one practitioner and government official agreed that the schools are trying to incorporate lessons on different aspects of sustainability, the other mentioned that the term has been cliched by overuse. Sustainability could be achieved through appropriateness in architectural practice, goals and education.

- **Role of Council** – Though the Council of Architecture is the administrative council for professional architects and architectural education in India, the participants had a mixed response regarding the role of Council. One of the academician and practitioners said Council of Architecture is not important as an administrative body. The state representatives present in the Council are self-indulgent and the role of the Council has been reduced to an institution that provides registration to the professionals. Though the Council is involved in regulating the architectural education, it does not look into the intricacies of the matter.

  According to the heads of the institutes the Council should strike a balance between regulation of the profession and regulation of the education. The Council should be more responsible in its role. The authors and activists are of the opinion that the Council should not have any role in the education system. The Council deals with the curriculum in a hard-handed manner, which makes it difficult for the faculty members to innovate.

6.4.5 Interventions – According to the participants, architectural education in India is influenced by different types of interventions. Details about them have been enlisted as follows:

- **Council Intervention** – The opinions of the different respondents about intervention of the Council of Architecture in architectural education in India was not as varied as much as about the Role of Council. Regarding the incorporation of social and cultural sustainability in architectural education in India, the academicians and practitioners said that it should happen from a liberal standpoint. The universities should work along with the Council to integrate this topic in every possible category. The Council office holder mentioned that the Council has created a flexible outline for the schools to enable innovating. Some of the heads of the institutes agreed with this. Some of them also praised the work of the then president of Council, saying he has raised the minimum standard of architectural education in India. Respondent HI07 compared the Indian architectural education scenario to that of U.K., and mentioned that the Council should exercise control over 50-60% of the curricular activities. The activists and authors however did not agree with this view. According to them the faculty training run by the Council is not discussing points of interest, rather they are force-feeding prescriptive and irrelevant curricula.
- **Economy** – Economy plays an important role in architectural practice and in some parts forms an intervention towards architectural education as well. According to the academicians and the practitioners, architecture, being a service -oriented field, is a well- paid profession. So, the professionals have a disposition towards

economic gain over social and cultural sustenance. The heads of the institutes stated that the current education is not building faith in social and cultural sustainability, but in economy. The architects are steered by economy and users' expectations. The users belong to various economic groups and the architects must understand the income brackets and the heterogeneity of the users. In the current professional field, that training is very important in the curricula.

- **Government Intervention** – Respondents from every category mentioned such interventions. According to the academicians and the practitioners, the current political situation of India is creating a number of job opportunities for the architects. The government projects may offer chances to the students of architecture to work on them, which would provide them with much needed social and cultural exposure. Some of the heads of the institutes mentioned that government could change the bye-laws to better incorporate social and cultural sustainability in architectural profession and education. The veteran academicians reflected on the early years when architecture studies were very socialistic, and the policies of India supported that way of thinking. Architectural education policies were decided based on the government policies. The process has changed in the present times.
- **Professional Intervention** – The academicians and practitioners stated that architecture is a service-oriented industry. Hence the professional intervention plays an important role how the curricula is to be designed for the students. The heads of the institutes stated that the architectural education in India is steered by the professional interventions. According to respondent HI01 architecture is run by the capitalistic forces, not the social ones, and pedagogy is responding to that, by producing more architects who can respond to this line of action, and eventually without doing it, one cannot sustain in the profession.

6.5 Assimilation of Results

The data collected from the semi-structured interviews was analysed to find the recurring themes of discussion across all the interviews. These themes were then grouped into categories and discussed in the previous section. The theme that occurred the most in the interviews was the several drawbacks in architectural education in India. The curricula are appropriate for creating professionals who can work on hypothetical briefs which lack the real-life social, cultural and economic complexities. The students of architecture in India need to be introduced to the real-life problems and needs of the users. The theories taught are predominantly West-centric, and thus the students lack contextual knowledge about the region they work in. Trans-disciplinarity is needed in the curricula, and they need to be updated.

The need for change in approach in architectural education in India was also focussed upon by the respondents. Several changes were discussed, like introduction of observation-studies, contextualisation of the curriculum to acknowledge the needs of the users and bringing back the system of apprenticeship. Several past references were drawn where the respondents reflected upon the past practices in architectural education in India, and

compared it to the present state of affairs. The architectural profession in India, as a result is lacking social and cultural responsibility. The professional front is being dominated by the builders and investors, while the architects are yielding their responsibilities to them and their roles have been reduced to mere service providers. Through the varying perspectives for the current condition of the profession in India, the respondents mostly agreed to this. When asked about their perspective of social and cultural sustainability their response was widely varied. While all of them acknowledged the importance of social and cultural sustainability in architectural education, the approach to incorporate it with the help of the UN Sustainable Development Goals was not agreed upon by all. Most of them disagreed to the approach of decolonisation of architectural education. According to them, rather than a decolonization drive, contextualisation of the curricula would be far more effective. A few respondents also emphasised on the need for documentation of the indigenous knowledge of India, which can be included in the curricula, and may help in overall contextualisation of the curricula.

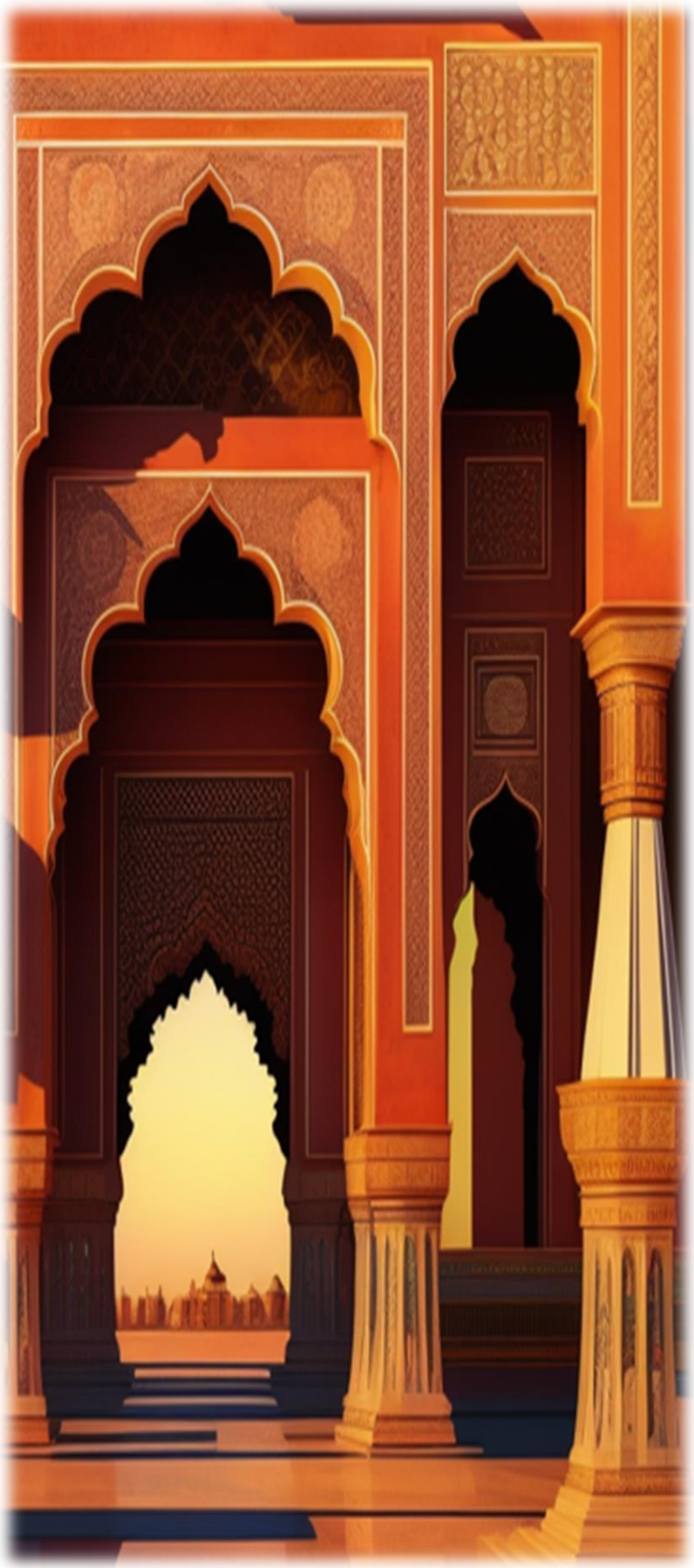
Most of the respondents highlighted several drawbacks on the role of the Council of Architecture in India. The choice of administrative approach of the Council and its intervention in architectural education was criticised by the respondents. The need for the faculty members to be trained properly with respect to the social and cultural sustainability aspects was emphasized upon. No matter how much the curricula are updated, or innovated upon, ultimately if the faculty members are not trained well to carry the knowledge to the classrooms, and demonstrate well, it would be fruitless. Thy need to stay updated about the professional front, and should use their own experiences in the classroom to teach the students about the on-field situations.

The different interventions that affect the profession were discussed, like Council of Architecture, the Government of India and the economy. The profession thus affected, affects the education. The students of architectural education in India are taught about the profession, and what they may expect on the field, and how they should tack such situations. However, the reality cannot be completely explained in the lessons, as it keeps changing due to these many interventions.

The experts of architectural education in India expressed their views about several topics. However, these topics are usually carried to the students of architecture across India by faculty members. Their ideation of these topics, opinions about the changes discussed by the experts, and suggestions for incorporation of social and cultural sustainability in architectural education in India must be studied to understand the problem better. Data collected from the faculty members has been detailed, analysed and discussed in the next chapter.

Chapter 7:

Quantitative Data Collection and Analysis



The Quantitative Data Collection has been done by using questionnaire, with multiple choice questions and Likert Scales to measure the opinion. The Questionnaire was prepared for faculty members. The sample was gathered through clustered and snowball sampling. Expected sample size was between 150 and 200. The collected data was analysed using Correlation analysis method. The results of the analysis brought out the clear idea of the impact on the topic of research that the faculty members have, based on their perception of social and cultural sustainability, its importance, and how they interpret it in the curriculum for the students. Detailed questions were presented in the questionnaire, bringing out a clear picture of how the research topic is treated by the different faculty members. The questions were divided in different categories. The objective of this chapter is to identify the range of approaches that follow a certain sequence based on the context and contents of social and cultural sustainability in architectural education in India. This chapter will lead to the details of the qualitative data collection and analysis.

7.1 Introduction

The aim of this chapter is to present the collected data from the architectural faculty members across India. In the previous chapters, the aims and objectives of this study had been described. Chapter 6 described the different approaches for the incorporation of social and cultural sustainability in architectural education in India as enumerated by the experts of architectural education in India. Amongst the different themes discussed by the experts, one prominent theme was the appropriate training of the architectural faculty members. The curricula are carried to the students in the classrooms by them. The students understand the curricula through their lens of comprehension. Based on the opinions, suggestions and criticisms of the experts, obtained through the semi-structured interviews, about the different themes, as described in Chapter 6, some topics of discussion had been shortlisted. For achieving the aim of the study, it was necessary to comprehend how the architectural faculty members viewed these topics, and what opinions they had of these. The first part of this chapter describes the process of designing the questionnaire based on these topics. The choice of questions, distribution of the questions in different appropriate categories, the choice of respondents and the sampling techniques have been described. The second part enumerates the analysis of the collected data. The questions had been designed to obtain logical answers from the respondents, which would help in achieving the aim and objectives of the research.

7.2 Questionnaire Design

The opinions, ideas and answers of the faculty members from across India was needed for this study. Currently, there are 471 schools of architecture (Council of Architecture). To obtain a clear understanding of how the topics related to social and cultural sustainability are being taught by the teachers across these schools, a sample size of 150-200 was chosen. The total number of respondents for the questionnaire survey is 160. To ensure that the response of 160 participants could be analysed systematically and within time limit, the choice of survey was questionnaire survey. Ethical approval was obtained before the survey was conducted. The approval form is presented in Appendix 4. The participant information

sheet for the participants of this survey is presented in Appendix 14. The Questionnaire form is presented in Appendix 15.

The analysed data collected from the semi-structured interviews had brought forward some important themes. To achieve the aim of this study, it was very important to understand how some of these themes are interpreted by the architectural faculty members. Based on them and the previous studies of the literature review, the themes of questions were sustainability, society and culture, architectural education, scope of the Council of Architecture and the decolonization of architectural education.

The term sustainability was often used in different contexts. These were the different pillars of sustainability like economy, society and the environment. So, when speaking about sustainability, it was noted, how the faculty members interpret sustainability, in context to which pillar and their opinion about the UN Sustainable Development Goals. This section of questions led to the next section relating to their opinions about society and culture, and how they are related to the architectural profession and education. Their comprehension of the relation between socio-cultural sustainability, and the present condition of Indian society and culture, and the relation between architectural education and the social responsibility of the professionals was studied.

Different changes have occurred in the architectural education approach since India gained independence in 1947. The participants describe whether these changes were appropriate and sufficient to prepare the students for meeting needs of the users. They enumerated their opinions of how far social and cultural sustainability has been introduced in the curricula and whether it is covered equally in theory as well as design assignments. The role of Council of Architecture is discussed next. Their inputs about how much importance is given by the Council to the topic of social and cultural sustainability in the curricula, and in the faculty training programs are noted. Lastly, how they interpret the idea of decolonisation of architectural education, and their opinions of how much it may help in achieving the aim of the research are noted.

There are twenty-seven questions in the questionnaire. They have been appropriately distributed under groups pertaining to particular topics. This helps in the systematic analysis of the collected data, and its comparison to the thematically analysed data collected from the semi-structured interviews.

7.3 Sampling of the Respondents

The political map of India is divided into twenty-eight states and eight union territories. The states can be roughly grouped into five geographic zones, North, South, East, West and Centre. The respondents were selected through simple random sampling and snowball sampling. The count of respondents from the different zones are presented in Table 7.1. The aim of this survey was to obtain ideas from faculty members belonging to different regions which identify different cultural traits, with different designations and different periods of experience. The ideas varying among the different designations and different lengths of experiences would help in identification of the variation of approaches that may be helpful in incorporation of social and cultural sustainability in architectural education in India, from which the most suitable ones may be short listed. The counts of the varying

designations of the 160 respondents and their length of teaching experience have been presented in Table 7.2 and Table 7.3 respectively.

Table 7.1 – Count of survey respondents from different zones.

North	East	South	West	Centre
50	27	37	36	10

Table 7.2 - Count of survey respondents from different designations.

Professor	Associate Professor	Assistant Professor	Research student
52	14	67	27

Table 7.3 - Count of survey respondents with varying length of teaching experience.

1 - 5 years	6 - 10 years	11 - 15 years	16 - 20 years	21 - 25 years	26 - 30 years	31 - 35 years	36 - 40 years
36	49	23	18	17	9	4	4

7.4 Results of Data Analysis

The respondents of the survey have provided varying views about each topic, which have been systematically analysed and presented in the following sections.

7.4.1 Sustainability

The survey began with questions related to their opinions about sustainability, how much importance they give to the topic, and to which aspect of it, and whether the seventeen UN sustainable development goals are achievable in India through architectural practice. The faculty members acknowledge the importance of the topic. While according to the survey, most importance is given to the environmental sustainability, the other aspects are not ignored either. Multiple answers were accepted from each respondent. Most of them opted for both ecological and social sustainability to be of utmost importance.

Table 7.4 – Count of votes for each aspect of sustainability (multiple choice question).

Q 1: In terms of inclusion of sustainability in the architectural curriculum, what are the types of sustainability that should be focussed on?						
Options	Political	Social	Cultural	Ecological	Economic	
Count	43	127	95	123	96	

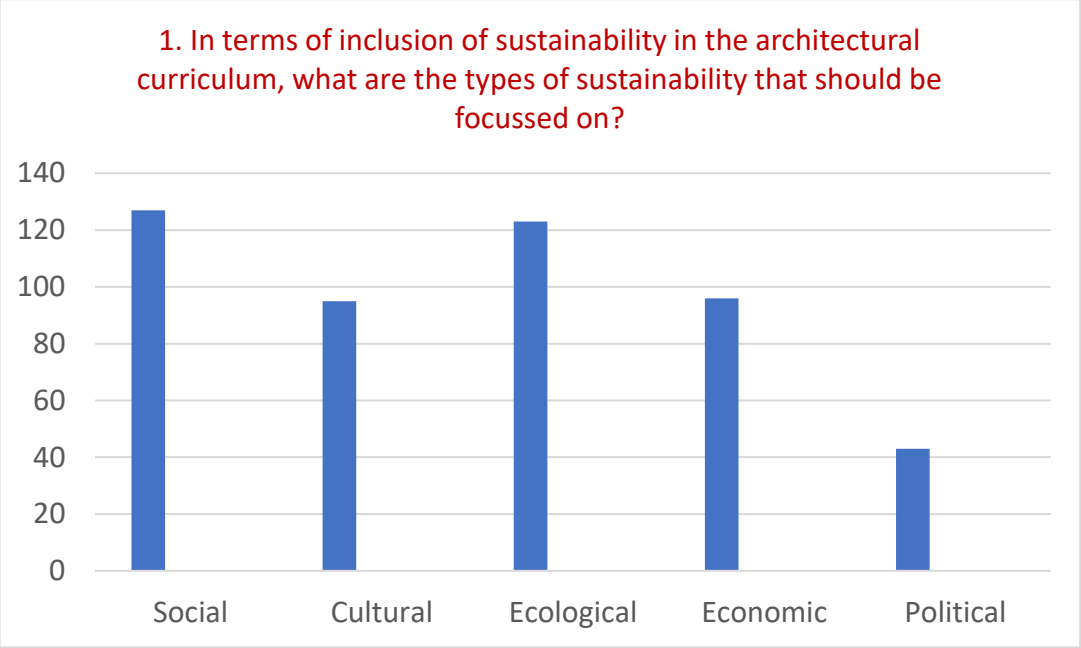


Figure 7.1 – Focus upon the different aspects of sustainability (the numbers on left are indicative of number of responses in each category).

Most of the respondents agreed that the sustainable development goals can be achieved in India through architectural practice. Some specific goals were pointed out by the respondents in the 'other opinion' section, which according to them are easily achievable like Goal 11 - Sustainable Cities and Communities, Goal 9 –Innovation and Infrastructure, Goal 12 – Responsible Consumption, Goal 1- No Poverty, Goal 4 - Quality Education, Goal 6 – Clean Water and Sanitation, Goal 8 – Good jobs and Economic Growth and Goal 13 – Climate Action.

Table 7.5 – Count of different responses to whether the goals are achievable in India through architectural practice.

Q2: The United Nations Sustainable Development Goals include No Poverty, Zero Hunger, Good Health and Well-being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Work and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life Below Water, Life on Land, Peace, Justice and Strong Institutions, and Partnerships for the Goals. From the List of the 17 UNSDG, do you think any of them can be achieved for India through architecture?					
Options	Yes	No	Maybe	Other opinions	
Count	134	2	24	23	

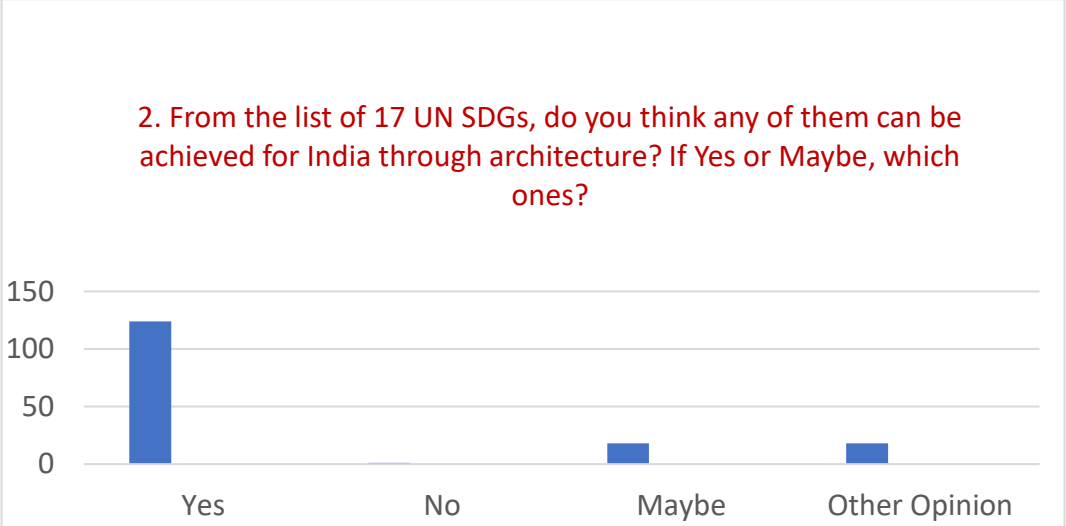


Figure 7.2 – Graphical representation of the response to whether the goals are achievable in India through architectural practice (the numbers on left are indicative of number of responses in each category).

7.4.2 Society and Culture

The next section of the questionnaire gathered opinions of the respondents about the society and culture. The respondents were asked whether the architects as professionals should have any social responsibility, and whether the architectural profession and education should be concerned with the socio-cultural situation of India at all. Most respondents agreed to both the questions (80.63% and 81.88% respectively). The respondents added that the difference between a profession and a trade is marked by the social responsibility of the professionals. India is earmarked with vintage edifices, and every architect should be socially and culturally responsible while working with them. This responsibility is also needed to understand the needs of the users. Architects have an important role in designing and communicating the appropriate and contextual architecture to the masses. One of the respondents mentioned that currently the socio-cultural fabric of India is at threat, and the situation may be improved by innovating upon architectural education by giving proper insights into the different settlement issues. Another respondent added that wisdom is not valid until it is applied in day-to-day life, and architectural education should encourage such applicability of social and cultural sustainable ideas by the professionals.

Table 7.6 – Count of opinions of the respondents regarding if architectural education and profession should be concerned with the socio-cultural situations of India.

Q3: By the current conditions, should architectural education and profession be concerned with the socio-cultural situations of India?					
Options	Yes	No	Maybe	Other Opinions	
Count	129	11	20	27	

Table 7.7 - Count of opinions of the respondents whether the architects have a particular social responsibility professionally.

Q4: In your opinion, do architects have a particular social responsibility professionally?					
Options	Yes	No	Maybe	Other Opinions	
Count	131	10	19	31	

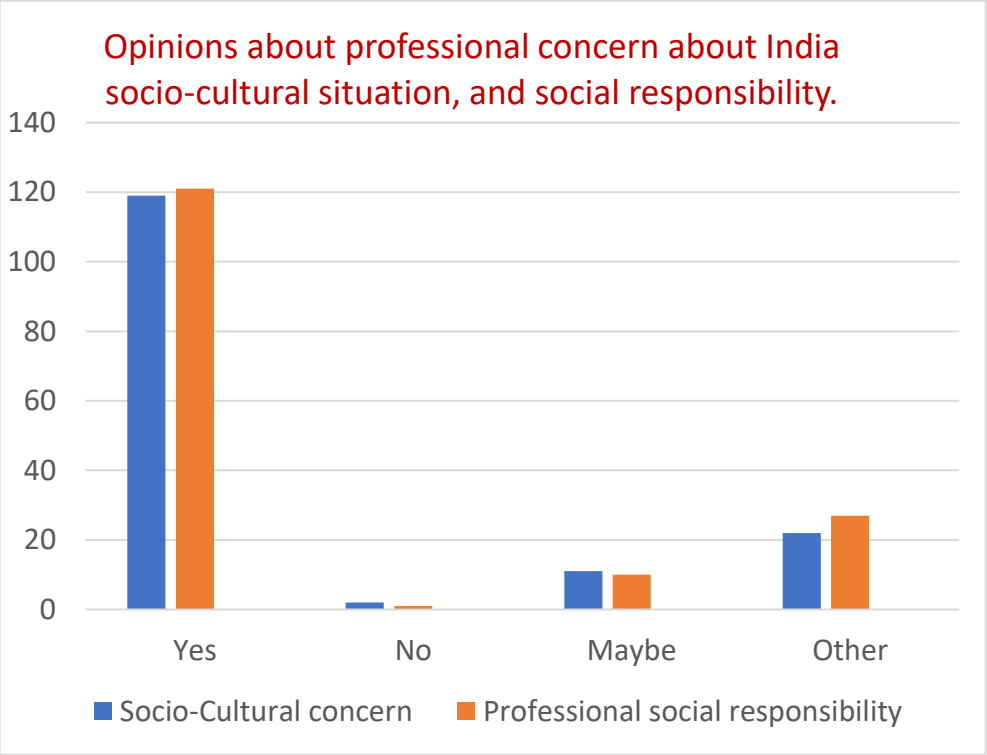


Figure 7.3 – Graphical representation of respondents' opinion about socio-cultural concern and professional socio-cultural responsibility (the numbers on left are indicative of number of responses in each category).

The other questions in this section were regarding the effect of architectural education on socio-cultural responsibility of the professionals and the relevance of the social and cultural sustainability with respect to India's socio-cultural scenario. While most of the respondents (51.25%) agreed that the social and cultural sustainability is highly relevant to India's socio-cultural scenario, the response varied for the other question. According to most of the respondents (36.88%), architectural education can have a considerable effect on the socio-cultural responsibility of the professionals, but it is not the sole effecting factor.

Table 7.8 – Count of respondents' opinions of how much architectural education may affect the professional influence on the sense of social responsibility amongst professionals.

Q5: On the scale of 1 to 5, 1 being No Affect, and 5 being Completely Effective, how much can architectural education affect the professional influence on the sense of social responsibility amongst professionals?						
Options	1	2	3	4	5	
Count	4	14	35	59	48	

Table 7.9 – Count of respondents' opinion of relevance of social and cultural sustainability with respect to India's socio-cultural scenario?

Q6: On the scale of 1 to 5, 1 being Not relevant at all, and 5 being Inseparable part, what is the relevance of social and cultural sustainability with respect to India's socio-cultural scenario?						
Options	1	2	3	4	5	
Count	0	9	20	49	82	

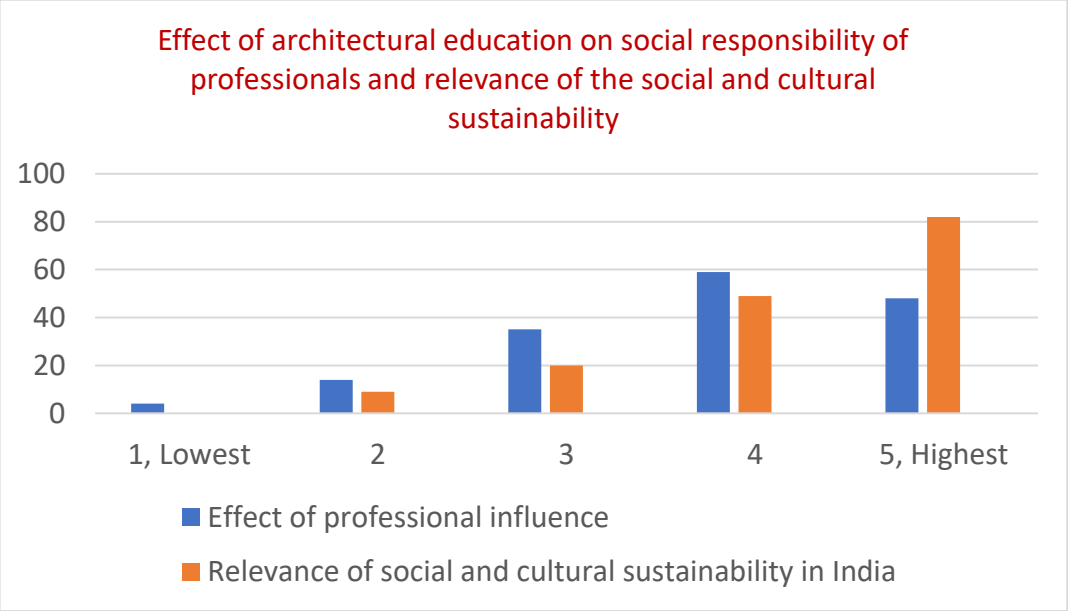


Figure 7.4 – Graphical representation of effect of architectural education on social responsibility of professionals and relevance of the social and cultural sustainability (the numbers on left are indicative of number of responses in each category).

7.4.3 Architectural Education

The section of questionnaire regarding architectural education had varied questions related to how architectural education affects the profession. Some questions were regarding the professional standpoint of the Indian architects. The area of influence for the architects in India are the private ownership, public domains, and the government projects. The area of

concern on the other hand are the people who are in the need of proper infrastructure, shelter, education, food, medicine, people who are living in poverty, facing discrimination based on social and cultural stigmas. The respondents were asked whether they believe the area of influence and the area of concern converges for the professionals. Most of the respondents (46.25%) agreed to such convergence taking place. They additionally mentioned in the 'other opinions' section that at individual level, the professionals are trying their best. Participation of the architects in the society has increased in the present times, however the topic needs to be addressed properly. Every project, private or public can influence the socio-economic state of immediate community, directly or indirectly. In case the project leader, who is often an architect decides to keep everything above board and inclusive, this social inclusion can become a reality. Professionals who can, must influence vision and strategy for this change at Government tables on behalf of the citizens who are often not in the room where these critical decisions are made.

The teaching approach was discussed next. In the previous times in India, architecture was taught through the process of apprenticeship. The student would have to spend a considerable time with a master architect and learn the craft over the time, until he would be considered a master himself. The cerebral form of architectural education came into practice in India since the colonial age. The respondents were asked whether according to them the cerebral approach of education produced better output as compared to the historical apprenticeship method. Mixed response was obtained as most respondents were unsure (32.5% agreed to it, 37.5% opted for option 'maybe', and 30% said no), as they had only participated in the cerebral form of education, and had seen the output of it. Some of them suggested in the 'other opinion' section, that 1 year of apprenticeship should be included in the 5 years-long course.

Respondents who support the cerebral system of education said in 'other opinions' section, it produces more individual thinker, giving freedom to students to develop their own style of design. This system makes the education structured and goal oriented. This form of education provides all perspectives of the profession, rather than the limited knowledge or style of a master craftsman (sthapati) or the architect. That is a powerful tool for creating professionals with vision. The new generation of architects can approach existing issues with a different perspective supported by latest inventions and a scientific approach. This contributes towards the development of better architecture conducive to the current time.

Apart from the approach, most of the respondents agreed that over the time, there has been appropriate changes made to the architectural curricula in India. They added that technology, latest software and tools have been included in the syllabus. However, the situation also depends on individual institutes and their pedagogical ideologies. Changes are being done; they are sometimes delayed by the approval committees.

Most of the respondents were unsure whether the current undergraduate curricula outlined by the Council of Architecture focus on the topic of social and cultural sustainability (39.38% opted for 'maybe', 35% provided negative response it, while 25.62% agreed to it). According to their 'other opinions', there is a need to fill the gap between the theoretical knowledge and practical mindset that is much needed by a fresher in the field. The outline set by the Council has sufficient scope for the universities to attend to their

individual agendas. Others disagreed to this notion. According to them there is scope for bringing in more consciousness about the social and cultural impacts.
The respondents who agreed to appropriate upgradation of the curricula were further asked the focus on the topic sufficient for the upheaval of realization of the social and cultural responsibilities among the students. Most of them answered in negative (51.25%). According to their answers in the 'other opinion' section, many bridges need to be built between skill, knowledge and research in academic projects both directly and indirectly for the students. This is seen chiefly as an individual approach at institutional or individual level of the academic faculty at the moment. Institutionalization of some of these ideas can help those students who are currently enrolled in universities in remote areas or where the faculty are not exposed to the radical ideas. One track curriculum needs to be avoided. Though awareness exists, more sensitization is required.
As discussed in the previous section, several users belong to the area of concern. The respondents were asked whether the curricula set by Council of Architecture does justice to the current needs as per these concerns of the present times. 49.38% answered that the curricula are not in accordance to the current needs of the users. They added in the 'other opinion' section that the premise of the curricula is practice driven, yet it does not take cognizance of the practice's evolution over the years. Rather, the approach needs to be developed out of a futuristic projection of the discipline's social responsibilities. Others added, while some subjects focus on these aspects, more should. Some of them suggested that the structure of Council of Architecture needs to be divided into zonal and central office for more efficiency and focus. The needs arise when there is a realisation of deficit, and that comes from looking at the socio-cultural and political aspects of the current times, which the current COA approved curricula lack.
Most respondents disagreed (45%) when asked whether the topic of social and cultural sustainability is covered equally in both theory lessons as well as the design assignments. They mentioned their additional opinion that knowledge versus application is the key issue. Even if reasonable amount of knowledge is disbursed, but the learning is not monitored, eventually application becomes superficial. Others added that the design studios are not yet based on real life site conditions. The focus on social and cultural sustainability in design assignments is not very sharp or poignant. It also depends on how well versed the faculty members are with these topics.
Table 7.10 – Count of respondents' opinion on whether there is a convergence of area of influence and area of concern

Q7: The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas. Does the area of professional influence converge with the present area of concern?				
Options	Yes	No	Maybe	
Count	74	37	49	

Table 7.11 – Count of respondents' opinions on whether output of cerebral education is better than that of apprenticeship method.

Q8: In the previous times in India, architecture was taught through the process of apprenticeship. The student would have to spend a considerable time with a master architect and learn the craft over the time, until he would be considered a master himself. The cerebral form of architectural education came into being since the colonial age. In your opinion, does the present cerebral form of architectural education produce better output, as compared to the historic apprenticeship method?				
Options	Yes	No	Maybe	
Count	52	48	60	

Table 7.12 – Count of respondents' opinions on whether appropriate changes have been made to architectural curricula over the years.

Q10: Since the colonial period, over the years, has there been appropriate changes made to the syllabus of architectural education?				
Options	Yes	No	Maybe	
Count	69	44	47	

Table 7.13 – Count of respondents' opinions on whether there is focus on Social and Cultural sustainability in architectural curricula.

Q11: Does the current undergraduate curriculum and syllabus outlined by Council of Architecture focus on Social and Cultural sustainability?				
Options	Yes	No	Maybe	
Count	41	56	63	

Table 7.14 – Count of respondents' opinion on whether the focus on social and cultural sustainability is sufficient.

Q12: If Yes, is the current amount of focus sufficient for the upheaval of realisation of the social and cultural responsibilities amongst the students?				
Options	Yes	No	Maybe	
Count	37	82	41	

Table 7.15 – Count of respondents' opinion on whether the architectural curricula do justice to the current needs as per the concerns of the present times.

Q13: The people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas form the area of concern. Does the set syllabus in architectural education, as per Council of Architecture, do justice to the current needs as per the concerns of the present times?				
Options	Yes	No	Maybe	
Count	27	79	54	

Table 7.16 – Count of respondents' opinions on whether the topic of social and cultural sustainability is covered equally in theory and practical lessons.

Q14: Is social and cultural sustainability covered equally both in the theory lessons and in the design assignments?				
Options	Yes	No	Maybe	
Count	38	72	50	

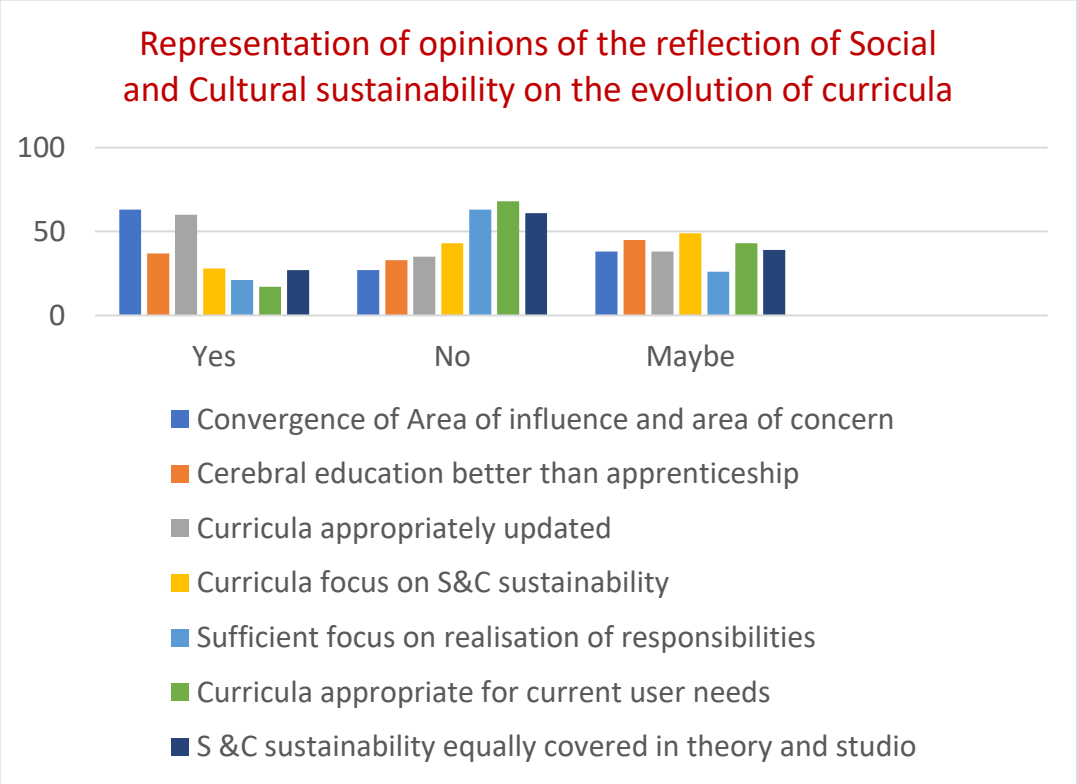


Figure 7.5 – Graphical representation of distribution of opinions of the reflection of social and cultural sustainability on the curriculum and its evolution (the numbers on left are indicative of number of responses in each category).

The respondents were asked to mark on a Likert scale the importance of social and cultural sustainability in architectural education. Most of them agreed (56.25%) that the topic plays a very important role. They were next asked to mark on a Likert scale, how much priority is given to the topic in the design assignments. The maximum response to this question was medium (36.88%).

Table 7.17 – Count of respondents' opinion of importance of social and cultural sustainability in architectural education

Q9: On the scale of 1 to 5, 1 being Not important, and 5 being Compulsory part, how important is the role of social and cultural sustainability in architectural education?						
Options	1	2	3	4	5	
Count	0	6	13	51	90	

Table 7.18 – Count of respondents' opinion of priority given to social and cultural sustainability considerations in the design assignments.

Q15: On the scale of 1 to 5, 1 being None at all, and 5 being First priority, how much priority is given to social and cultural sustainability considerations in design assignments?						
Options	1	2	3	4	5	
Count	10	32	59	39	20	

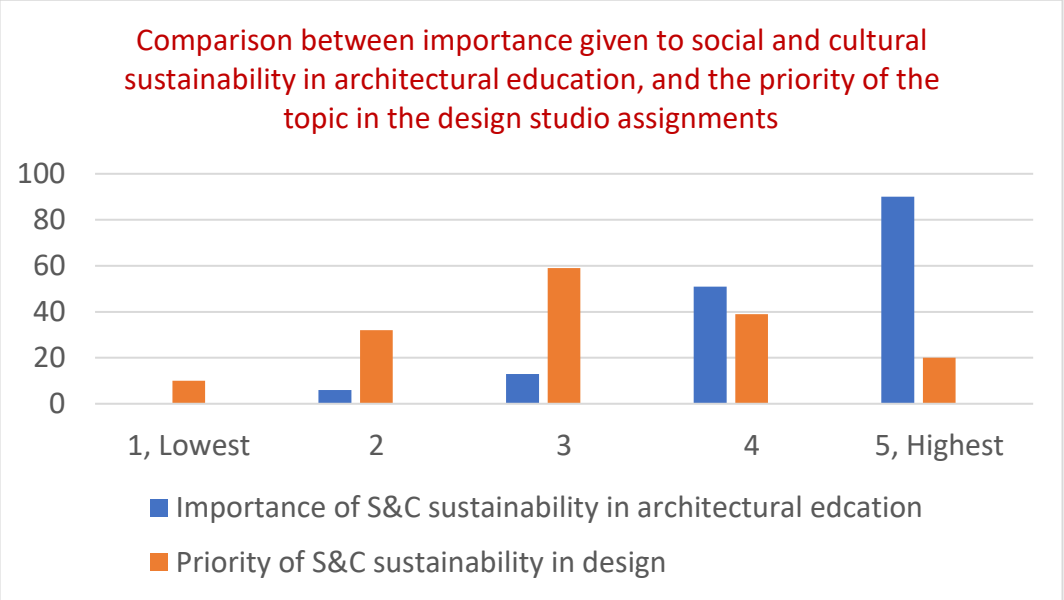


Figure 7.6 – Graphical representation of comparison between importance given to social and cultural sustainability in architectural education, and the priority of the topic in the design studio assignments (the numbers on left are indicative of number of responses in each category).

7.4.4 Scope of Council of Architecture

The role and scope of Council of Architecture was questioned. The respondents were asked if the topic of social and cultural sustainability is appropriately covered in the Training and Research programs of Council of Architecture. Most of the respondents were unsure (50.63%). Some of them added that the faculty training programs do not focus on social and cultural sustainability. Even if rare approaches can be found, they are superficial. The output of such focus lacks reflection, and incorporation in education.

As per the curricular outline set by the Council of Architecture, the respondents were asked if there is any gap between the theory and the design. Most of the participants (53.13%) agreed to the presence of such gap. According to them the Council of Architecture recommendation outlines the requirements in terms of size or complexity of the exercises and subjects. However, it is not limiting in curtailing the nature of studio exercises undertaken in individual classrooms or institutions. Hence lack of inclusion of social or cultural sustainability is purely based on the inclination of the institution or faculty for experimentation or awareness. Council of Architecture cannot be seen as limiting or confining the outline of architectural education in India. Other respondents added, there is a gap, and it somehow emerges from the myth that 'theory' is idealistic in nature and 'practice' is all about being practical. The two thus, cannot converge. Some of the theory subjects need upgradation and new concepts need to be taught in the theory as well as in design. Most of the respondents (64.38%) agreed to the proposal of making social and cultural sustainability a compulsory subject. According to others, the syllabus needs to be made more contextual, as the idea of adding a compulsory subject may not be sustainable. Rather than addition of an extra compulsory subject, it should be embedded in every aspect in the subjects currently taught.

Table 7.19 – Count of respondents' opinion on whether social and cultural sustainability is appropriately covered in COA TRC programs.

Q17: Is the topic of social and cultural sustainability appropriately covered in any of the COA TRC programs?				
Options	Yes	No	Maybe	
Count	39	40	81	

Table 7.20 - Count of respondents' opinion on whether there is a gap between theory and design lessons in terms of social and cultural sustainability.

Q19: Is there a gap between theory and design in terms of Social and Cultural sustainability as per the syllabus set by the Council of Architecture?				
Options	Yes	No	Maybe	
Count	85	25	50	

Table 7.21 - Count of respondents' opinion on whether social and cultural sustainability should be made a compulsory subject.

Q20: Should the subject of social and Cultural sustainability be made compulsory in the theory curriculum?				
Options	Yes	No	Maybe	
Count	103	13	44	

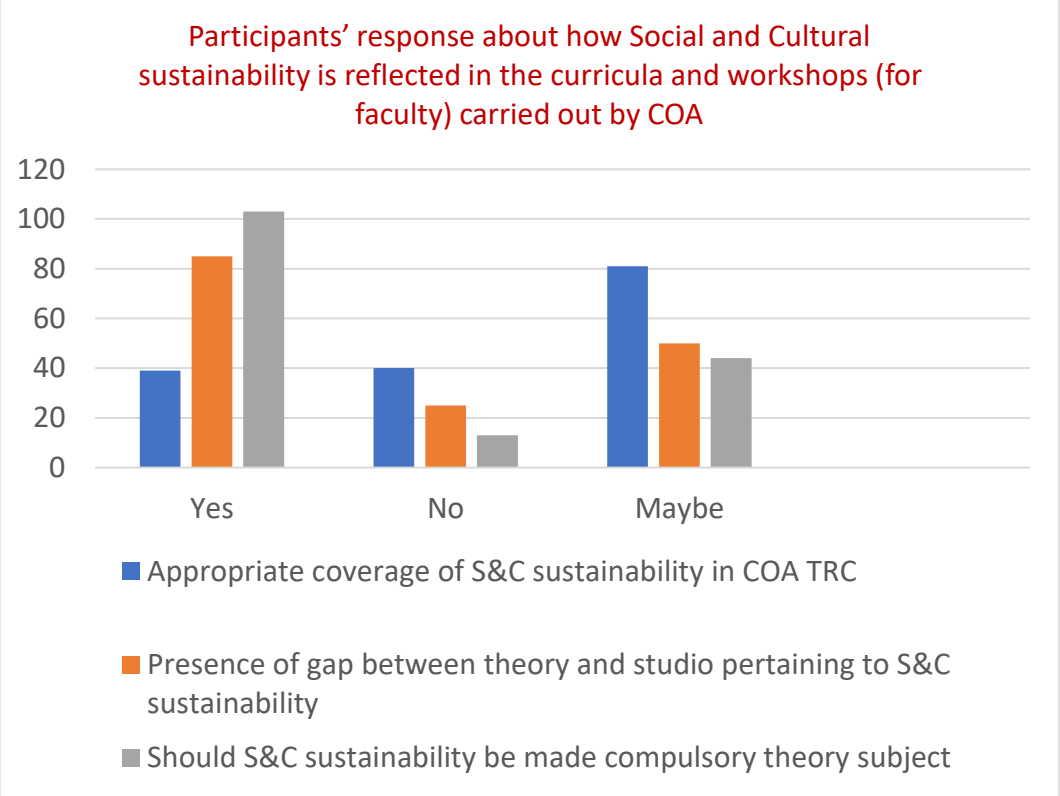


Figure 7.7 – Graphical representation of respondents' opinions about how social and cultural sustainability is reflected in the curriculum and workshops (for faculty) carried out by Council of Architecture (the numbers on left are indicative of number of responses in each category).

The respondents were asked to mark on a Likert scale the importance of the topic of social and cultural sustainability in the curricular outline set by the Council of Architecture. 32.63% of the respondents replied that the topic is of moderate importance in the curricula. They were also asked how much importance is given to the topic in the teachers' training workshops conducted by the Council of Architecture. The highest percentage of response (43.13%), in this case too was moderate. The responses have been graphically displayed in Figure 7.11.

Table 7.22 – Count of respondents' opinion on the importance given to the topic of social and cultural sustainability in the curricula.

Q16: On the scale of 1 to 5, 1 being None at all, and 5 being Absolute importance, in accordance to the set syllabus by the Council of Architecture, how much importance is given to the topics of social and cultural sustainability?						
Options	1	2	3	4	5	
Count	13	41	57	35	14	

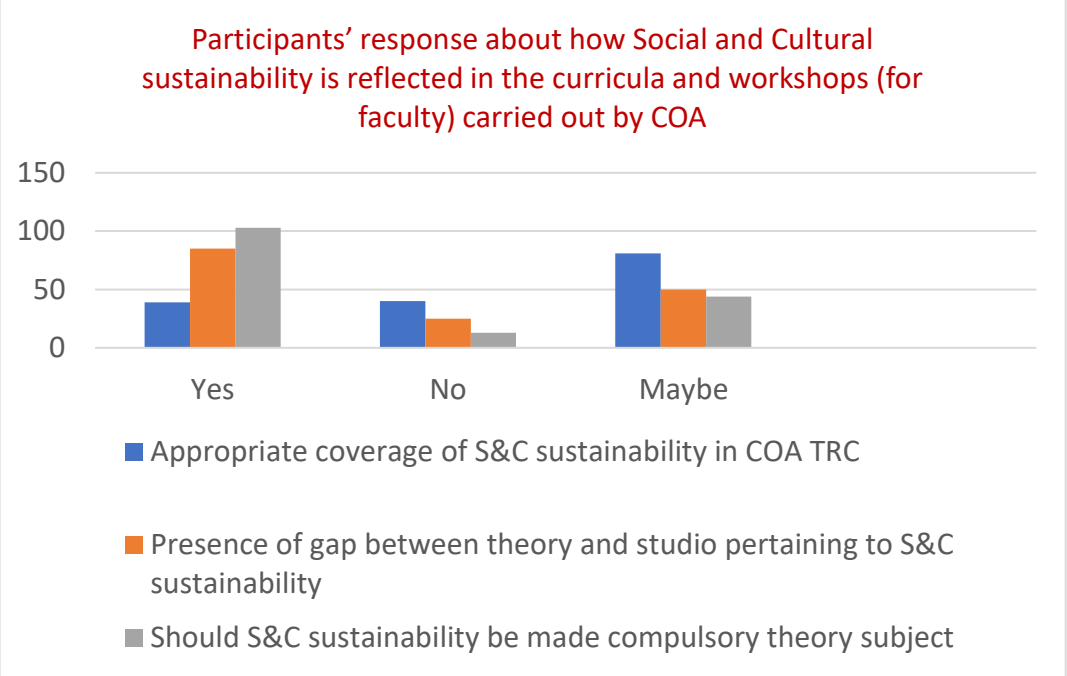


Figure 7.8 – Graphical representation of respondents' opinions about how social and cultural sustainability is reflected in the curriculum and workshops (for faculty) carried out by Council of Architecture

Table 7.23 – Count of respondents' opinion on the importance given to the topic of social and cultural sustainability in the COA TRC programs.

Q18: On the scale of 1 to 5, 1 being None at all, and 5 being Absolute importance, how much importance is given to the topic of social and cultural sustainability in the workshops and conferences conducted by COA TRC?						
Options	1	2	3	4	5	
Count	9	25	69	42	15	

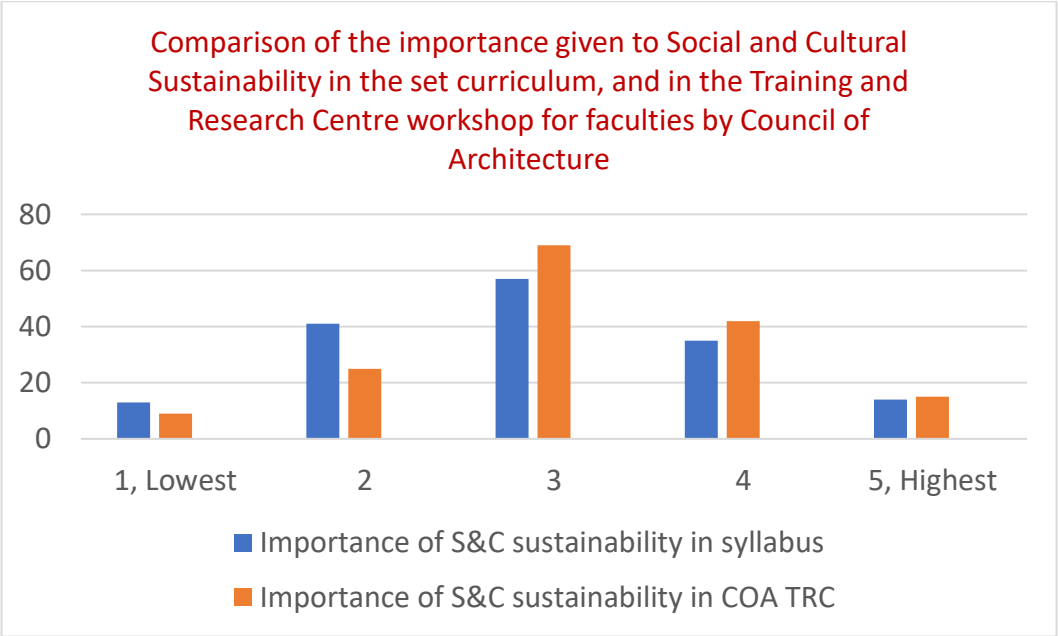


Figure 7.9 – Graphical representation of comparison of the importance given to social and cultural sustainability in the set curriculum, and in the Training and Research Centre workshop for faculties by Council of Architecture (the numbers on left are indicative of number of responses in each category).

7.4.5 Decolonization of Architectural Education

The last category of questions was regarding decolonisation of architectural education. The respondents were asked whether the topic of social and cultural sustainability should be made a primary marking criterion. Most of the respondents answered positively. They added that along with social-cultural sustainability comes lessons for political and environmental sustainability which are essential to be taught to the students. Others said it might depend from case to case. Social, cultural, economic, environmental and political sustainability have varying weightage based on the intention and expected outcome from any design project. Generally, in any design studio, the faculty ensures social and cultural factors being considered. If it is made a marking criterion, it will compel the students to recheck the inclusion.

They were next asked whether the idea of decolonisation of education is relevant to Indian architectural education system. Most of the respondents agreed to this as well. Some of them added that there was no formal architectural education pre-colonisation, so they are not sure how decolonisation may help. Others emphasised that the Indian building systems should be given more importance, the curricula need revamping and to be moulded with the cultural Indian outcome. Getting heavily influenced by the 'West' is an issue intrinsic to globalisation. Moving away from such influences is a larger issue. A curricular document after all, will be prepared by a group of faculty members, who themselves need to change the way they think or perceive.

Table 7.24 – Count of respondents' opinion of whether social and cultural sustainability be made a primary marking criterion for design assignments.

Q21: Should social and cultural sustainability in design be made a primary marking criterion?				
Options	Yes	No	Maybe	
Count	76	30	54	

Table 7.25 - Count of respondents' opinion of whether decolonisation of architectural education relevant to present curriculum in India.

Q22: The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Is Decolonisation of architectural education relevant to present curriculum in India?				
Options	Yes	No	Maybe	
Count	83	36	41	

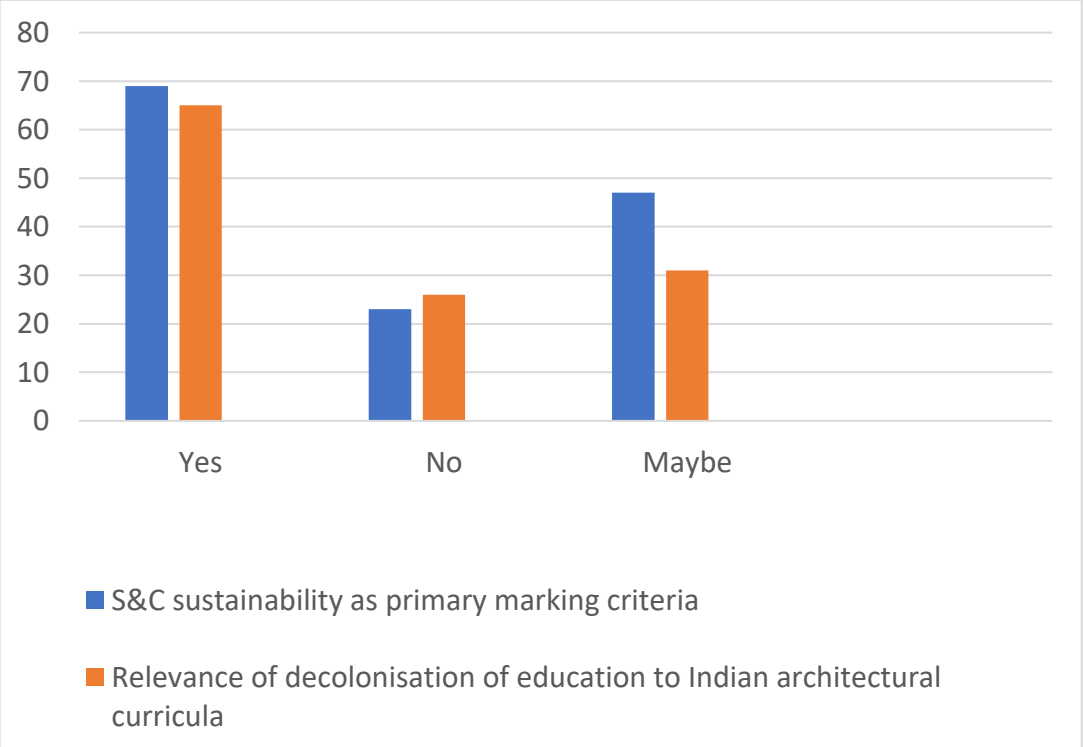


Figure 7.10 – Graphical representation of distribution of opinion among the respondents about social and cultural sustainability becoming primary marking criteria and the relevance

of education to Indian architectural curricula (the numbers on left are indicative of number of responses in each category).

Respondents were asked to mark on a Likert scale about how far the decolonisation drive may affect the establishment of social and cultural sustainability in architectural education in India. Most of the respondents replied with moderate effect.

Table 7.26 – Count of respondents' opinion on the importance of social and cultural sustainability in Indian architectural education.

Q23: On the scale of 1 to 5, 1 being None at all, and 5 being Considerably effective, how much will a decolonisation drive affect in establishing the importance of social and cultural sustainability in Indian architectural education?						
Options	1	2	3	4	5	
Count	12	14	59	45	30	

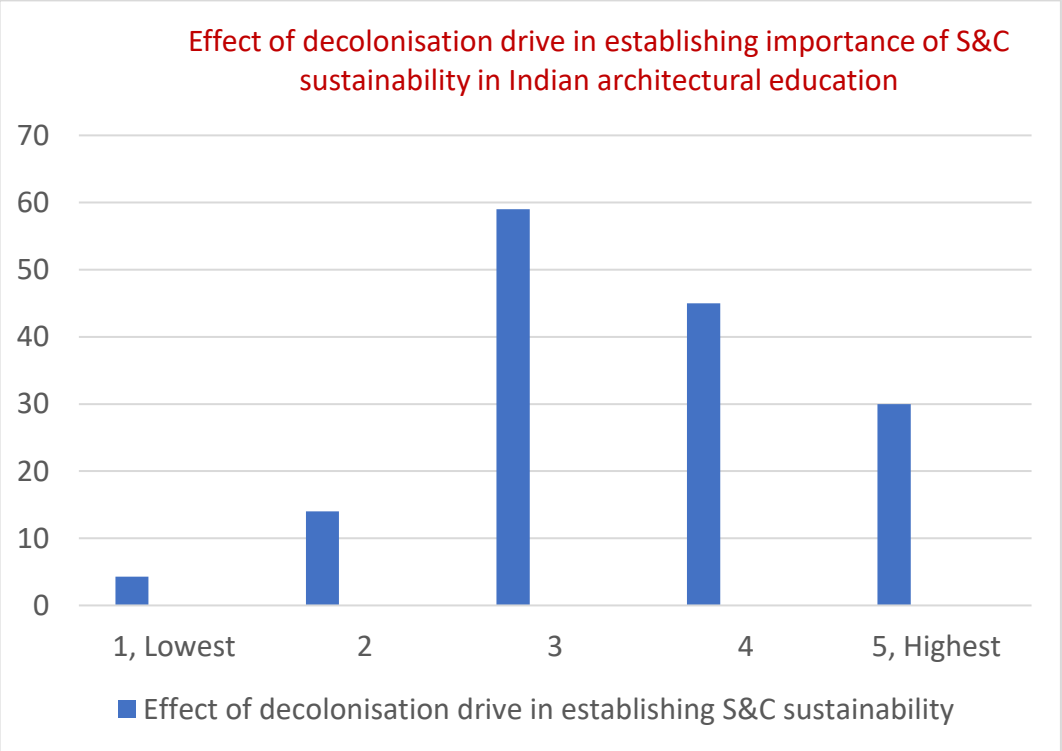


Figure 7.11 – Graphical representation of the response to effect of decolonisation drive in establishing importance of social and cultural sustainability in architectural education (the numbers on left are indicative of number of responses in each category).

7.5 Summary of Results

The respondents of the questionnaire survey, through their varied answers, have described the present situations and needs of architectural education in India, and the importance of social and cultural sustainability in it. The most common statement that reiterated through

the answers of the respondents is that the incorporation of social and cultural is primarily dependent on the disposition of individual schools of architecture and the faculty members working there. Whether the topic is included in the design assignments, the theory lessons, and are discussed in lectures and seminars depends on the awareness of the faculty members. The curricular outline set by the Council of Architecture is flexible, and provides scope for innovations which needs to be accepted by the schools of architecture while finalising the syllabus. The faculty members should have a disposition towards teaching about sustainability in the lessons, and it is up to them to make it a marking-criteria in the design assignments.

The first section of the questionnaire was designed to comprehend how the faculty members ideate sustainability. The responses showed that most of them (83.75%) believe that the seventeen UN sustainable development goals can be achieved in India through architectural practice. As professionals they have high concerns about the socio-cultural situation of India, and 80.63% of the respondents agree that they have a social responsibility as professional architects. Most of them (51.25%) believe that the topic of social and cultural sustainability is relevant to the present socio-cultural situation of India. When asked to prioritise the different aspects of sustainability, the faculty members focussed mostly on social and ecological sustainability: 76.88% voted for both social and ecological sustainability, followed cultural sustainability (59.38%). According to them the effect of architectural education on social responsibility of the professionals is good, but not the best.

According to 46.25 % of the respondents, there are chances of the convergence of the area of influence and the area of concern for the professionals, and most of them believe that the architectural curricula is appropriately updated over the time. However, they were mostly unsure (39.38%) about whether sufficient focus is not there on the realisation of the responsibilities of the professionals, while 35% of the respondents agreed to the absence of said focus. Most of them (49.38%) confirmed that the current architectural curricula are not appropriate for addressing the needs of the current users, and 45% (highest percentage) of the respondents agreed that the topic of social and cultural sustainability is not equally covered in theory and studio lessons, thus creating a gap in knowledge there. Thus, it is clear from their answers, that though the curricula have been updated over the time, it needs more work to be on par with the current needs of the users.

Most of the respondents (37.5%) were unsure if the cerebral mode of architectural education is better than the apprenticeship method used in pre-colonial ages in India. Most of them (56.25%) rated the importance of the topic of social and cultural sustainability in the architectural curricula as high in a Likert scale, and most of them (39.38%) were unsure whether the architectural education curricula focus on the topic. Most of the respondents (36.88%) prioritised inclusion of the topic in design moderately, but 47.5% (highest percentage) of the respondents agreed that it should be made a compulsory theory subject and a primary marking criterion in design. While most of them (51.88%) agreed that the theory of decolonisation of education is highly relevant to the Indian architectural education

system, according to them, the theory would have a moderate impact in the incorporation of social and cultural sustainability in Indian architectural curricula.

The overall response of the faculty members brings forth a confusion about their ideation of the topic, prioritisation of the aspects of sustainability and choice of approach for innovation in education. This raised a question of how they may be helped in focussing clearly on incorporation of the topic. They were also asked regarding the scope of the Teachers' Training Programs run by the Council of Architecture. Most of the respondents (50.63%) were unsure about the topic being appropriately covered in the faculty training programs and workshops run by the Council of Architecture. However, they mostly agreed that the importance of the topic of social and cultural sustainability is moderate in both the curricula set by the Council (35.63% of the respondents), and the faculty training programs run by the Council of Architecture (43.13% of the respondents).

Chapter 8:

Discussion and Conclusion

A conclusion was drawn from the different analysis conducted in the previous chapters. In this conclusion, a clear understanding of the present conditions of the architectural education in India in terms of Social and Cultural Sustainability, and the reasons behind it being so was formed. A composite opinion of whether the Decolonisation of Architectural Education is an applicable theory for this study was generated. The many nuances of this research, and their significance was established. The contributions that this research work has made to knowledge on this topic and the pathways for further studies, along with the recommendations from the work, were developed.

8.1 Introduction

In conclusion of this study, the different steps, nuances and objectives will be discussed. The overall aim of this research was to find suitable approaches that will help in the incorporation of the topic of social and cultural sustainability in the architectural education curricula in India. In Chapter 1, section 1.4.2 the different research objectives of this study had been discussed. The different ways in which these objectives have been achieved in this study will be outlined in this chapter. The research objectives are as follows:

O1: Provide a critical overview of relationship between professional practice requirements and architectural education in context of India.

To achieve this objective, it was anticipated that understanding the perspectives of the professional experts of India would be necessary. The experts were interviewed, concomitantly, faculty members across the nation were asked about this topic in the questionnaire survey. The respondents for both the interviews (all the respondents) and the questionnaire survey (81.88% of the respondents) mostly agreed that the professionals have a social responsibility. However, according to the faculty members, the effect of education on the professional awareness is good, but not the best. The reason for such view can be found in the answers of the experts. According to them, the architectural profession is currently led by the builders and the investors. The architects do not carry the onus of the projects, and are guided by the economy, and current trends. This reality is not taught in the classrooms. The education system is very ideological, which does not work similarly in the practical field. The students of architecture in India are not taught about the ground reality, or how to tackle adverse professional situations. Their knowledge is theoretical, and assignments assigned to them are mostly hypothetical. Thus, there remains a gap between the professional practice requirements and the architectural education in India.

O2: Investigate and present a series of approaches that translate and reflect socio-cultural ethos and manifest in courses.

Investigation was carried out, by studying the ethos, curricula and student outputs of schools of architecture in India in detail. The results were analysed, and a questionnaire was prepared for the architectural faculty members based on this analysis. Some of them had mentioned in the additional opinion section that the innovation in approach depends upon the particular institutes and the faculty members. The teachers carrying the syllabus to the students must themselves be aware and interested, and must have the onus of incorporating the topic in the lessons. The academic experts agreed to this. They added that since the onus is upon the faculty members, they must be properly trained and made aware

about the topic. The responsibility of architectural faculty training belongs solely to Council of Architecture. Their faculty training programs are regular, however the experts mentioned that these programs are not sufficient to bring awareness among all the faculty members across the nation. The faculty members were asked about the training programs, to which most of them (43.13%) agreed that the topic of social and cultural sustainability has moderate importance in these programs. The focus on this topic has scope to increase.

O3: Examine how social and cultural sustainability topics are introduced both in studio practice and lecture courses.

The pathway to achieve this objective was shown by the faculty members. According to most of them (64.38%), the topic of social and cultural sustainability should be made a compulsory subject. Concomitantly it should be made a primary marking criterion for the design assignments. In this way, it can be ensured that the theory lessons will be reflected in the designs. The experts as well mentioned that the topic of social and cultural sustainability should be made compulsory in the first three years, and should be reflected in the design output. If this practice can be continued for three years, the idea will be embedded in the design methodology of the students.

Apart from this, to find an easy pathway to achieve this objective, the ethos and curricula of hundred global schools of architecture was studied (detailed in Chapter 5). To ensure the incorporation of the topic in architectural education, the schools include lectures and seminars which explore the past work and contribution of architects working in the South-Asian region, based on the social and cultural needs of the area. This approach may be applicable to Indian architectural education system.

O4: Examine how social and cultural sustainability topics can be promoted in studio practice and lecture courses through the process of decolonisation of education.

In contrast to ideation based on the background theory in the literature review, upon investigation, it was found that according to the academic experts the approach of decolonisation may not be best suited to achieve the aim of this research. Instead, as detailed in section 6.4.3, the needs of the hour are documentation and contextualisation. The academic experts agreed to the need of documentation, as most of the theory that the student study is written by Western authors, and describes western practices, and thus the indigenous knowledge and practices are ignored. Documenting the local practices, techniques and knowledge would further help in creating a context-based curricula, which is much needed. The students, studying architecture through a Western lens, cannot comprehend the local context when they work on the field as professionals, thus projecting a lack of social and cultural awareness and responsibility.

The architectural faculty members had a different opinion as detailed in section 7.4.5. According to them decolonisation of architectural education is highly relevant to Indian architectural education (figure 7.10, table 7.25), however its effect on promotion of social and cultural sustainability in architectural education in India is moderate (figure 7.11, table 7.26).

8.2 Contribution to Knowledge

The aim and objectives of the research have been achieved and explained in the previous section. The contributions of the research will be presented in this section.

The present situation of architectural practice in India can be understood from this study. The profession is being dominated by investors, while the architects are working under them, and according to their guidelines. Being a service-oriented profession, currently the primary focus is on economic gains rather than humanistic approaches and responsibilities. The building designs aim towards modernity and trending styles. In that effort, the local identity is lost. The materials are chosen keeping the currently trending architectural styles in mind. Thus, the use of glass and steel have increased, whereas the local materials and techniques are mostly ignored. This approach has produced glass boxes in multitude, which lack cultural identity and individuality. The users and their needs are not appropriately prioritised. They have to adjust to the spaces provided to them. These ideas have been observed through exploratory research with help from the architectural academic experts (detailed in Chapter 6) and literature review (detailed in Chapter 2 and Chapter 3).

The theoretical contribution of this research is advancement of the comprehension of approaches that may help in incorporation of social and cultural sustainability in architectural education in India. Further this study assesses the perspectives of the faculty members who carry the curricula to the students daily. Their perspective of the topic, of the situation of the profession, and the suitable approaches for betterment of the situation helps in comprehending how the topic is handled in the lessons, and what changes are necessary in the process. Further this thesis gives an approximate count of how many schools of architecture include the topic in their syllabus, and in what form. This research highlights problems like the availability (or lack of it) of resources for teaching particular topics in schools of architecture, and finds solutions to such problems which may be easily applicable by the schools (detailed in Chapter 6).

Through the empirical chapters, this research explores the differences of perspectives and approaches between the architectural academic experts and the faculty members in India. It examines the steps taken by the Council of Architecture for propagation of the topic in the schools of architecture in India, and suggests approaches that may help the Council. This study also brings forth the nuances in perspectives of the academic experts regarding the role of Council in regulating architectural education in India. Finally, this thesis explores whether the Council's regulation policies for the profession and education are designed to accommodate the topic of social and cultural sustainability with due priority. Though the Council updates the curricula from time to time, ethos of the different schools of architecture mentions the topic, and may include it as an elective subject in the syllabi, incorporation of the topic into every subject with proper focus and through trans-disciplinarity is needed to ensure the professionals may be aware of their social and cultural responsibilities, and their scope at achieving all the aspects of sustainability.

8.3 Recommendation of Further Studies

The research aimed to find the best approaches to incorporate the social and cultural sustainability in architectural education in India. The investigations and study have highlighted several other research points which should be further investigated; therefore, the following topics are recommended to be studied and explored in the future:

- The findings of the study revealed that there is a gap between the area of concern and the area of influence for the practicing architects of India in terms of social and cultural responsibility. If the two areas may be converged, that would be very helpful for achieving socio-cultural and economic sustainability in the field of architecture for the users who belong to the lower economic strata. This study therefore recommends research to be conducted to find the best suited approaches for the convergence of the area of concern and the area of influence.
- The research recommends further research about the different types of interventions in the architectural profession, which in turn affect the course of architectural education in India. This study revealed some such intervening and regulating sources like the Council of Architecture, economic factors and the bye-laws set by the Government of India. More such sources may be unravelled upon further probing, and this information can be used to improve the professional status of architects in the economic market.
- The study revealed there is a dearth of documentation of the works of Indian architects belonging to the pre-colonial era (before 1947). Research is recommended in this field, as the resultant resources would be very important study materials for the students of architecture in India, and would promote a sense of historical identity for Indian architecture.
- This study tried to find if the theory of decolonisation of education may help in incorporation of social and cultural sustainability in architectural education in India. It revealed that contextualisation is a better suited approach to achieve the aim. Further studies on this may help in comprehending the best suited approach for contextualisation of the West-centric curricula, which will further help in corporation of social and cultural sustainability in architectural education in India.

8.4 The Concluding Remarks

The thesis presented research of the architectural education system of India, and several aspects related to it. Society and culture are important aspects of sustainability, which needs to be incorporated in the architectural curricula in India. To find the best suited approach for this, the history of evolution of Indian architectural education has been studied. The present conditions of architectural education have been surveyed. To comprehend it in a holistic manner, similar survey has been conducted for world-wide architectural education, and the results have been compared. The comparison result has highlighted the current needs of the situation.

The most refined idea about architectural education in India can be obtained from the architectural academic experts. They can best describe the needed approaches and the drawbacks of the present system. The regular on field scenario of the architectural education system can be best explained by the faculty members who teach the curricula to the students daily. They can highlight the needed resources to achieve the aim of this research. Data was collected from both the groups through different surveys. The results were further compared to find the common areas of concern and needs. This helped in formulating the needed approaches which will help in achieving the aim of the research.

The objectives of the research have been discussed in this chapter (Chapter 8), along with the approaches which will help in achieving them, while accomplishing the aim of the research. It also displays the main results of this research (Section 8.1). This chapter also enlisted the recommendations for further research work, and described the contributions of this research in details. This research provides detailed perspective for the profession of architecture and architectural education system in India in the present times, and highlights the future perspective for betterment of both fields.

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Appendices

Appendix 1: List of 100 top ranking architectural institutes worldwide for content analysis

Rank	Name	Location
1	Massachusetts Institute of Technology	Cambridge, United States
2	Delft University of Technology	Delft, Netherlands
3	UCL	London, United Kingdom
4	ETH Zurich	Zurich, Switzerland
5	Harvard University	Cambridge, United States
6	National University of Singapore (NUS)	Singapore
7	Manchester School of Architecture	United Kingdom
8	University of California, Berkeley (UCB)	Berkeley, United States
9	Tsinghua University	Beijing, China
10	Politecnico di Milano	Milan, Italy
11	Manchester School of Architecture	United Kingdom
12	EPFL	Lausanne, Switzerland
13	Tongji University	Shanghai, China
14	Columbia University	New York, United States
15	The University of Hong Kong	Hong Kong SAR
16	The University of Tokyo	Tokyo, Japan
17	University of California, Los Angeles (UCLA)	Los Angeles, United States
18	The Hong Kong Polytechnic University	Hong Kong SAR
19	KTH Royal Institute of Technology	Stockholm, Sweden
20	Universitat Politecnica de Catalunya (UPC)	Barcelona, Spain
21	The University of Sydney	Sydney, Australia
22	Technische Universitat Berlin (TU Berlin)	Berlin, Germany
23	Georgia Institute of Technology	Atlanta, United States
24	Technical University of Munich	Munich, Germany
25	The University of Melbourne	Parkville, Australia
26	Cornell University	Ithaca, United States
27	The University of Sheffield	Sheffield, United Kingdom
28	RMIT University	Bundoora, Australia
29	University of Pennsylvania	Philadelphia, United States
30	University of British Columbia	Vancouver, Canada
31	Seoul National University	Seoul, South Korea
32	University of Michigan-Ann Arbor	Ann Arbor, United States
33	The University of New South Wales (UNSW)	Sydney, Australia
34	Politecnico di Torino	Turin, Italy

35	Stanford University	Stanford, United States
36	KU Leuven	Leuven, Belgium
37	Cardiff University	Cardiff, United Kingdom
38	Tokyo Institute of Technology (Tokyo Tech)	Tokyo, Japan
39	Universidad Politecnica de Madrid (UPM)	Madrid, Spain
40	University of Texas at Austin	Austin, United States
41	Pontificia Universidad Catolica de Chile (UC)	Santiago, Chile
42	Aalto University	Espoo, Finland
43	Peking University	Beijing, China
44	Chalmers University of Technology	Gothenburg, Sweden
45	McGill University	Montreal, Canada
46	Nanyang Technological University	Singapore
47	University of Toronto	Toronto, Canada
48	Shanghai Jiao Tong University	Shanghai, China
49	Universidade de Sao Paulo	Sao Paulo, Brazil
50	Tianjin University	Tianjin, China
51	Aalborg University	Aalborg, Denmark
52	Carnegie Mellon University	Pittsburgh, United States
53	City University of Hong Kong	Hong Kong SAR
54	Curtin University	Perth, Autralia
55	Eindhoven University of Technology	Eindhoven, Netherlands
56	Hanyang University	Seoul, South Korea
57	Harbin Institute of Technology	Harbin, China
58	Huazhong University of Science and Technology	Wuhan, China
59	KIT, Karlsruhe Institute of Technology	Karlsruhe, Germany
60	Korea University	Seoul, South Korea
61	Kyoto University	Kyoto, Japan
62	Loughborough University	Loughborough, United Kingdom
63	Lund University	Lund, Sweden
64	Monash University	Melbourne, Australia
65	Nanjing University	Nanjing, China
66	National Technical University of Athens	Athens, Greece
67	Newcastle University	Newcastle upon Tyne, United Kingdom
68	Norwegian University of Science and Technology	Trondheim, Norway
69	Oxford Brookes University	Oxford, United Kingdom
70	Pennsylvania State University	Princeton, United States
71	Queensland University of Technology (QUT)	Brisbane, Australia
72	RWTH Aachen University	Aachen, Germany
73	Sapienza University of Rome	Rome, Italy
74	Southeast University	Nanjiang, China
75	Technische Universitat Wien	Vienna, Austria
76	Texas A&M University	College Station, United States
77	The Chinese University of Hong Kong	Hong Kong SAR
78	The University of Auckland	Auckland, New Zealand

79	The University of Queensland	Brisbane, Australia
80	Universidad de Chile	Santiago, Chile
81	Universidad Nacional Autonoma de Mexico (UNAM)	Mexico City, Mexico
82	Universidad Nacional de Colombia	Bogota, Colombia
83	Universidade Federal do Rio de Janeiro	Rio de Janeiro, Brazil
84	Universita luav di Venezia	Venice, Italy
85	Universitat Stuttgurt	Stuttgurt, Germany
86	Universiti Teknologi Malaysia	Skudai, Malaysia
87	University of Bath	Bath, United Kingdom
88	University of Cape Town	Cape Town, South AfricA
89	The University of Edinburgh	Edinburgh, United Kingdom
90	University of Illinois at Urbana-Champaign	Champaign, United States
91	University of Porto	Porto, Portugal
92	University of Reading	Reading, United Kingdom
93	University of Southern California	Los Angeles, United States
94	University of Technology Sydney	Haymarket, Australia
95	University of Waterloo	Waterloo, Canada
96	Waseda University	Tokyo, Japan
97	Yale University	New Haven, United States
98	Yonsei University	Seoul, South Korea
100	Zhejiang University	Hangzhou, China

Appendix 2: List of 100 top ranking architectural institutes in India for content analysis

Rank	Name	State	Zone
1	Indian Institute of Technology, Kharagpur	West Bengal	East
2	Indian Institute of Technology, Roorkee	Uttarakhand	North
3	National Institute of Technology, Calicut	Kerala	South
4	School of Planning and Architecture, Delhi	Delhi	North
5	College of Engineering	Kerala	South
6	School of Planning and Architecture, Bhopal	Madhya Pradesh	Central
7	National Institute of Technology, Trichy	Tamil Nadu	South
8	Jamia Millia Islamia University	Delhi	North
9	School of Planning and Architecture Vijaywada	Andhra Pradesh	South
10	BIT Mesra	Jharkhand	East
11	College of Engineering Vishakhapatnam	Andhra Pradesh	South
12	Anna University	Tamil Nadu	South
13	Aligarh Muslim University	Uttar Pradesh	North
14	MANIT Bhopal	Madhya Pradesh	Central
15	BMSCE	Karnataka	South
16	Sir J J College of Architecture Mumbai	Maharashtra	West
17	CEPT University	Gujarat	West
18	Jawaharlal Nehru Architecture and Fine Arts University	Andhra Pradesh	South
19	Jadavpur University	West Bengal	East
20	MNIT	Rajasthan	West
21	Chandigarh College of Architecture	Punjab	North
22	Manipal Academy of Higher Education	Karnataka	South
23	Christ University Bangalore	Karnataka	South
24	RVCE Bangalore	Karnataka	South
25	Ramaiah Institute of Technology	Karnataka	South
26	IIEST Shibpur	West Bengal	East
27	VNIT Nagpur	Maharashtra	West
28	National Institute of Technology Patna	Bihar	East
29	National Insitute of Technology Hamirpur	Himachal Pradesh	North
30	Government Engineering College Thrissur	Kerala	South
31	National Institute of Technology Raipur	Chhattisgarh	East
32	BSAU Chennai	Tamil Nadu	South
33	L. S. Raheja School of Architecture	Maharashtra	West
34	Rachana Sansad Academy of Architecture	Maharashtra	West
35	Lovely Professional University	Punjab	North

36	Priyadarshini Institute of Architecture and Design Studies	Maharashtra	West
37	Sharda University	Delhi	North
38	Sathyabhama Institute of Science and Technology	Tamil Nadu	South
39	SRM Institute of Science and Technology	Tamil Nadu	South
40	Chandigarh University	Punjab	North
41	DIT University	Uttarakhand	North
42	Hindustan University	Tamil Nadu	South
43	Manav Rachna International Institute of Research and Studies	Haryana	North
44	Vidya Pratishthan's College of Engineering	Maharashtra	West
45	GITAM	Andhra Pradesh	South
46	Kamla Raheja Vidyanidhi Institute for Architecture and Environmental Studies	Maharashtra	West
47	Kavikulguru Institute of Technology and Sciences	Maharashtra	West
48	Lingaya's University	Haryana	North
49	Deccan School of Planning and Architecture	Andhra Pradesh	South
50	Dayananda Sagar College of Architecture and Interior Designing	Delhi	North
51	IES College of Architecture	Maharashtra	West
52	Vastu Kala Academy College of Architecture and Interior Designing	Delhi	North
53	NIMS University	Rajasthan	West
54	Amity University Noida	Delhi	North
55	IPS Academy Indore	Madhya Pradesh	Central
56	Dr. M.G.R. Educational and Research Institute	Tamil Nadu	South
57	Rajalakshmi engineering College	Tamil Nadu	South
58	Sri Venkateswara College of Architecture Hyderabad	Andhra Pradesh	South
59	Giani Zail Singh College of Engineering and Technology	Punjab	North
60	Chhotu Ram State College of Engineering Sonepat	Haryana	North
61	MES College of Engineering Malappuram	Kerala	South
62	Karpagam University Coimbatore	Tamil Nadu	South
63	MSU Baroda	Gujarat	West
64	Institute of Design Environment & Architecture	Gujarat	West
65	Rajiv Gandhi Institute of Technology Kottayam	Kerala	South
66	Meenakshi College of Engineering	Tamil Nadu	South
67	Bharati Vidyapeeth Deemed University	Maharashtra	West
68	RPIIT Technical Campus Karnal	Haryana	North
69	NMIM's Balwant Sheth School of Architecture	Maharashtra	West
70	Adhiyamaan College of Engineering	Tamil Nadu	South
71	MEASI Academy of Architecture	Tamil Nadu	South
72	Babu Banarasi Das University	Uttar Pradesh	North
73	Maharishi Markandeshwar University Ambala	Haryana	North
74	KR Mangalam Institutes for Higher Education	Delhi	North

75	Chitkara University	Punjab	North
76	Navrachana University	Gujarat	West
77	Sardar Patel University	Gujarat	West
78	Asian School of Architecture and Design Innovation	Kerala	South
79	Thiagarajar College of Engineering	Tamil Nadu	South
80	St Peter's University	Tamil Nadu	South
81	Rizvi College of Architecture	Maharashtra	West
82	Invertis University Bareilly	Uttar Pradesh	North
83	Surya World Patiala	Punjab	North
84	Ansal Institute of Technology	Delhi	North
85	McGan's Ooty School of Architecture	Karnataka	South
86	BLDE Association's VP Dr PG Halakatti College of Engineering and Technology	Maharashtra	West
87	Thangal Kunju Musaliar College of Engineering	Kerala	South
88	RR Institute of Modern Technology	Uttar Pradesh	North
89	KLS Gogte Institute of Technology	Karnataka	South
90	KLE Society's BV Bhoomaraddi College of Engineering and Technology	Karnataka	South
91	CCLS College of Architecture and Design	Haryana	North
92	Sinhgad College of Architecture	Maharashtra	West
93	Sunder Deep Group of Institutions	Uttar Pradesh	North
94	Indo Global Colleges	Punjab	North
95	School of Architecture CSI Institute of Technology	Telengana	South
96	Mohamed Sathak Engineering College	Tamil Nadu	South
97	SVS School of Architecture	Tamil Nadu	South
98	DY Patil University	Maharashtra	West
99	SSE Society's College of Engineering and Technology	Maharashtra	West
100	Varaha College of Architectre and Planning	Andhra Pradesh	South

Appendix 3: Detailed list of Indian architectural institutes that mention Social and Cultural Sustainability in their ethos and/or curricula

Serial No.	Name of Institute	Year of Inauguration	Location	No. of Seats	University	Ethos	Subject	Elective	Semester	L/S/P	Contact Hours	Credits	Reflection in Design
1	School of Planning and Architecture	2008	Bhopal, Madhya Pradesh	75	Deemed University	Vaguely mentioned	Society Culture and Architecture	No	1st	L	3	3	Nil
2	Manipal School of Architecture and Planning	1978	Manipal, Karnataka	120	Deemed University	Prominently mentioned	Vastuvidya	Yes	4th	L	2	2	Nil
							Vastuvidya	Yes	5th	L & P	3+2	4	Nil
3	R.V. College of Architecture	1992	Bengaluru, Karnataka	140	Visweswaraya Technological University	Vaguely mentioned	Basic Design and Art Appreciation	No	5th	L &S	1 + 3		Yes
4	Indian Institute of Technology	1956	Roorkee, Uttarakhand	37	Deemed University	Not Mentioned	Society, Culture and Built Environment	No	5th	L & P	2+1	3	Yes
							Sustainability	No	5th	L & P	3 + 1	4	Yes
5	Birla Institute of Technology, Mesra	1993	Ranchi, Jharkhand	25	Deemed University	Not Mentioned	Sustainable City Planning	Yes	7th	L	3	3	Yes
6	School of Planning and	1941	Delhi	35	Deemed University	Prominently mentioned	History of Architecture	No	2nd	L	2	2	Yes

	Architecture						Human Settlement and Vernacular Architecture	No	1st	L	2	2	Yes
							Sociology and Culture	No	2nd	L	2	2	Yes
7	Chandigarh College of Architecture	1961	Chandigarh, Punjab	40	Punjab University	Not Mentioned	History of Built Environment - I	No	1st	L	2	2	Yes
							History of Built Environment - II	No	2nd	L	2	2	Yes
							History of Built Environment – III	No	3rd	L	2	2	Yes
							History of Built Environment – IV	No	4th	L	2	2	Yes
							History of Built Environment - V	No	5th	L	2	2	Yes
							Design and Sociology V	No	5th	S	3	3	Yes
							Vernacular Architecture- VII	No	7th	L	2	2	Yes

8	Lovely Professional University	2005	Jalandhar, Punjab		Association of Indian Universities	Not Mentioned	Early Civilizations arts culture and aesthetics	No	1st	L	3	3	No
							Sociology and Economics	No	5th	L	2	2	No
9	School of Planning and Architecture	2008	Vijaywada, Andhra Pradesh	98	Deemed University	Not Mentioned	Theory of Settlement Planning	No	5th	L	3 + 1	3	No
10	College of Engineering	1989	Vishakhapatnam, Andhra Pradesh	40	Andhra University	Vaguely mentioned	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11	Aligarh Muslim University	1994	Aligarh, Uttar Pradesh	24	Deemed University	Not Mentioned	Man, Society and Buildings	No	2nd	L	2	2	No
							Sustainable Architecture	Yes	8th	L	3	4	No
12	Malaviya National Institute of Technology	1988	Jaipur, Rajasthan	68	Deemed University	Vaguely mentioned	Introduction to Architecture and Basic Design	No	1st	L & P	1 + 5	6	Yes
							History of Architecture IV	No	5th	L	3	3	No
13	National Institute of Technology	2000	Hamirpur, Himachal Pradesh	23	Deemed University	Vaguely mentioned	Sustainable Vernacular Practices in Himachal Pradesh	Yes	7th	L	4	4	Yes

14	National Institute of Technology	1984	Raipur, Chhattisgarh	71	Deemed University	Not Mentioned	History of European Architecture	No	2nd	L	3	3	No
							History of Architecture, Art and Culture	No	3rd	L	4	4	Yes
							Modern Architecture	No	6th	L	3	3	Yes
							Urban Design	Yes	7th	L	3	3	Yes
							Sustainable Architecture	Yes	8th	L & P	4 + 4	6	Yes
15	SRM Engineering College	1992	Chennai, Tamil Nadu	82(x2)	Anna University	Vaguely mentioned	N/A	N/A	N/A	N/A	N/A	N/A	Not Available
16	Dehradun Institute of Technology	2005	Dehradun, Uttarakhand	120	Deemed University	Vaguely mentioned	N/A	N/A	N/A	N/A	N/A	N/A	Not Available
17	Hindustan University	1985	Chennai, Tami Nadu		Deemed University	Vaguely mentioned	History of Architecture I	No	1st	L	3	3	No
							Visual Arts and Appreciation	No	1st	L & P	1 + 2	2	Yes
							Design Communication	No	3rd	L	3	3	Yes
							History of Architecture IV	No	4th	L	3	3	No

Appendix 4: Ethics Application Form

Ethics Application Form

Please answer all questions

1. Title of the investigation
Social and Cultural Sustainability in Architectural Education in India
Please state the title on the PIS and Consent Form, if different:

2. Chief Investigator (must be at least a Grade 7 member of staff or equivalent)
Name: Ashraf M. A. Salama ☒ Professor ☒ Reader Senior Lecturer Lecturer Senior Teaching Fellow Teaching Fellow Department: Department of Architecture Telephone: +44 (0) 141 548 3097 E-mail: ashraf.salama@strath.ac.uk

3. Other Strathclyde investigator(s)
Name: Krishnokoli Dutta Status (e.g. lecturer, post-/undergraduate): Post Graduate Researcher Department: Department of Architecture Telephone: +44 (0) 7584904903 E-mail: krishnokoli.dutta@strath.ac.uk

4. Non-Strathclyde collaborating investigator(s) (where applicable)

Name: Status (e.g. lecturer, post- /undergraduate): Department/Institution: If student(s), name of supervisor: Telephone: E-mail: Please provide details for all investigators involved in the study:

☐ ☐

6. Location of the investigation
At what place(s) will the investigation be conducted Interviews will be conducted and Questionnaires will be sent online to participants in India.
If this is not on University of Strathclyde premises, how have you satisfied yourself that adequate Health and Safety arrangements are in place to prevent injury or harm?

7. Duration of the investigation		
Duration(years/months)	2 Months	
Start date (expected):	01 / 06 / 2022	Completion date (expected): 05 / 08 / 2022

8. Sponsor
Please note that this is not the funder; refer to Section C and Annexes 1 and 3 of the Code of Practice for a definition and the key responsibilities of the sponsor.
Will the sponsor be the University of Strathclyde: Yes No ☒ If not, please specify who is the sponsor: It is self-sponsored research

☐

9. Funding body or proposed funding body (if applicable)
Name of funding body: :us of proposal – if seeking funding (please click appropriate box): In preparation Submitte d Accepte d Date of submission of proposal: / / Date of start of funding: / /

☐
☐
☐

10. Ethical issues

Describe the main ethical issues and how you propose to address them:
The main ethical issue might be privacy. If the participants wish to stay anonymous, as many questions are subjected to open interpretation of the topic, anonymity will be granted accordingly.

11. Objectives of investigation (including the academic rationale and justification for the investigation) Please use plain English.

Objective of the investigation is to understand the gap between how the ethos should be reflected in Indian architectural education, as interpreted by the academic experts, and how it is being reflected, as described by the architectural faculty members.

12. Participants

Please detail the nature of the participants:
Participants for the semi structured interviews are the architectural academic experts of India. The participants for the questionnaires are the faculty members in Indian architectural institutes, from different areas, having a distributed age range.
Summarize the number and age (range) of each group of participants:
Number: Semi structed interview - 5, Questionnaire - 30 Age (range) Semi structured interview - 45-70 years, Questionnaire - 30 - 75 years
Please detail any inclusion/exclusion criteria and any further screening procedures to be used:

13. Nature of the participants

Please note that investigations governed by the Code of Practice that involve any of the types of participants listed in B1(b) must be submitted to the University Ethics Committee (UEC) rather than DEC/SEC for approval.

Do any of the participants fall into a category listed in Section B1(b) (participant considerations) applicable in this investigation: Yes ☒ No
If yes, please detail which category (and submit this application to the UEC):
The participants work outside U.K, in different architectural institutes in India.

14. Method of recruitment

Describe the method of recruitment (see section B4 of the Code of Practice), providing information on any payments, expenses or other incentives.
No payments, incentives or expenses to be borne by the investigator.

15. Participant consent

Please state the groups from whom consent/assent will be sought (please refer to the Guidance Document). The PIS and Consent Form(s) to be used should be attached to this application form.

Consent will be sought from two groups - The academic experts for the semi structured interviews and the faculty members for the questionnaire.

16. Methodology

Investigations governed by the Code of Practice which involve any of the types of projects listed in B1(a) must be submitted to the University Ethics Committee rather than DEC/SEC for approval.

Are any of the categories mentioned in the Code of Practice Section B1(a) (project considerations) applicable in this investigation? Yes ☒ No

If 'yes' please detail:

Describe the research methodology and procedure, providing a timeline of activities where possible. Please use plain English.

1. Qualitative Comparative analysis of ethos and curriculum of 100 global and Indian architectural institutes (Completed). 2. Detailed Content analysis. 3. Meta synthesis of data. 4. Data Collection through Interview and Questionnaire. 5.Thematic analysis

What specific techniques will be employed and what exactly is asked of the participants? Please identify any non-validated scale or measure and include any scale and measures charts as an Appendix to this application. Please include questionnaires, interview schedules or any other non-standardized method of data collection as appendices to this application.

1. Screening questionnaire explaining how the topic is interpreted and reflected by the faculty members. 2. Semi structured interview explaining how the topic is interpreted by the academic experts.

Where an independent reviewer is not used, then the UEC, DEC or SEC reserves the right to scrutinize the methodology. Has this methodology been subject to independent scrutiny? Yes No

If yes, please provide the name and contact details of the independent reviewer:

17. Previous experience of the investigator(s) with the procedures involved. Experience should demonstrate an ability to carry out the proposed research in accordance with the written methodology.

Experience regarding conducting procedures like meta-synthesis of data, questionnaires and semi-structured interviews have been gained through previous participation in similar work for completion of Master's degree dissertation work.

18. Data collection, storage and security

How and where are data handled? Please specify whether it will be fully anonymous (i.e., the identity unknown even to the researchers) or pseudo-anonymized (i.e., the raw data is anonymized and given a code name, with the key for code names being stored in a separate location from the raw data) - if neither please justify.

The collected data will be completely anonymous, and will be handled with utmost care in accordance with all sensitive data restrictions and regulations.

Explain how and where it will be stored, who has access to it, how long it will be stored and whether it will be securely destroyed after use: The data will be stored in the University Cloud Platform, and in the investigator's personal system. They will be published in articles, and used in seminar and conferences related to this particular research work by the investigator.
Will anyone other than the named investigators have access to the data? Yes No If yes please explain:

19. Potential risks or hazards
Briefly describe the potential Occupational Health and Safety (OHS) hazards and risks associated with the investigation: The potential Occupational Health and Safety (OHS) hazards and risks associated with the investigation is zero, as the entire investigation will be conducted through online communication. Form S20 Link: https://safetysystems.strath.ac.uk/ra.php?ID=5606
Please attach a completed OHS Risk Assessment (S20) for the research. Further Guidance on Risk Assessment and Form can be obtained on Occupational Health, Safety and Wellbeing's webpages

20. What method will you use to communicate the outcomes and any additional relevant details of the study to the participants?
The outcomes of the study and any other relevant details will be communicated with the participants in the form of published articles and reports, if requested for.

21. How will the outcomes of the study be disseminated (e.g. will you seek to publish the results and, if relevant, how will you protect the identities of your participants in said dissemination)?
The outcomes of the study ae to be published, and discussed in seminars and conferences. The identity of the participants will be kept anonymous throughout.

Checklist	**Enclosed**

Participant Information Sheet(s) Consent	☒	☐
Form(s)	☒	☐
Sample questionnaire(s) Sample	☒	☐
interview format(s) Sample	☒	☐
advertisement(s) OHS Risk	☐	☐
Assessment (S20)	☒	
Any other documents (please specify below)	☐	☐
		☐
		☐
		☐
		☐

22. Chief Investigator and Head of Department Declaration

Please note that unsigned applications will not be accepted and both signatures are required

I have read the University's Code of Practice on Investigations involving Human Beings and have completed this application accordingly. By signing below, I acknowledge that I am aware of and accept my responsibilities as Chief Investigator under Clauses 3.11 – 3.13 of the Research Governance Framework and that this investigation cannot proceed before all approvals required have been obtained.

Signature of Chief Investigator 

Please also type name here: Professor Ashraf M Salama

I confirm I have read this application, I am happy that the study is consistent with departmental strategy, that the staff and/or students involved have the appropriate expertise to undertake the study and that adequate arrangements are in place to supervise any students that might be acting as investigators, that the study has access to the resources needed to conduct the proposed research successfully, and that there are no other departmental-specific issues relating to the study of which I am aware.

Signature of Head of Department 

Please also type name here Professor Tim Sharpe

Date: 16 /5 /22

23. Only for University sponsored projects under the remit of the DEC/SEC, with no external funding and no NHS involvement

Head of Department statement on Sponsorship

This application requires the University to sponsor the investigation. This is done by the Head of Department for all DEC applications with exception of those that are externally funded and those which are connected to the NHS (those exceptions should be submitted to R&KES). I am aware of the implications of University sponsorship of the investigation and have assessed this investigation with respect to sponsorship and management risk. As this particular investigation is within the remit of the DEC and has no external funding and no NHS involvement, I agree on behalf of the University that the University is the appropriate sponsor of the investigation and there are no management risks posed by the investigation.

If not applicable, tick here

Signature of Head of Department	
Please also type name here	Tim Sharpe
Date:	/ /

For applications to the University Ethics Committee, the completed form should be sent to ethics@strath.ac.uk with the relevant electronic signatures.

24. Insurance

The questionnaire below must be completed and included in your submission to the UEC/DEC/SEC:

Is the proposed research an investigation or series of investigations conducted on any person for a Medicinal Purpose? Medicinal Purpose means: treating or preventing disease or diagnosing disease or ascertaining the existence degree of or extent of a physiological condition or assisting with or altering in any way the process of conception or investigating or participating in methods of contraception or inducing anaesthesia or otherwise preventing or interfering with the normal operation of a physiological function or altering the administration of prescribed medication.	~~Yes~~ / No

If "**Yes**" please go to **Section A (Clinical Trials)** – all questions must be completed If "**No**" please go to **Section B (Public Liability)** – all questions must be completed

Section A (Clinical Trials)

Does the proposed research involve subjects who are either: under the age of 5 years at the time of the trial; known to be pregnant at the time of the trial	Yes / No

*If "**Yes**" the UEC should refer to Finance*

Is the proposed research limited to: Questionnaires, interviews, psychological activity including CBT; Venepuncture (withdrawal of blood); Muscle biopsy; Measurements or monitoring of physiological processes including scanning; Collections of body secretions by non-invasive methods; Intake of foods or nutrients or variation of diet (excluding administration of drugs).	Yes / No

*If "**No**" the UEC should refer to Finance*

Will the proposed research take place within the UK?	Yes / No

*If "**No**" the UEC should refer to Finance*

Title of Research	
Chief Investigator	
Sponsoring Organisation	
Does the proposed research involve:	
a) investigating or participating in methods of contraception?	Yes / No
b) assisting with or altering the process of conception?	Yes / No
c) the use of drugs?	Yes / No
d) the use of surgery (other than biopsy)?	Yes / No

e) genetic engineering?	Yes / No
f) participants under 5 years of age(other than activities i-vi above)?	Yes / No
g) participants known to be pregnant (other than activities i-vi above)?	Yes / No
pharmaceutical product/appliance designed or manufactured by the institution?	Yes / No
i) work outside the United Kingdom?	Yes / No

If **"YES"** to **any** of the questions a-i please also complete the **Employee Activity Form** (attached).

If **"YES"** to **any** of the questions a-i, and this is a follow-on phase, please provide details of SUSARs on a separate sheet.
*If "**Yes**" to any of the questions a-i then the UEC/DEC/SEC should refer to Finance (*insurance-services@strath.ac.uk*).*

Section B (Public Liability)	
Does the proposed research involve :	
a) aircraft or any aerial device	~~Yes~~ / No
b) hovercraft or any water borne craft	~~Yes~~ / No
c) ionising radiation	~~Yes~~ / No

d) asbestos	~~Yes~~ / No
e) participants under 5 years of age	~~Yes~~ / No
f) participants known to be pregnant	~~Yes~~ / No
harmaceutical product/appliance designed or manufactured by the institution?	~~Yes~~ / No
h) work outside the United Kingdom?	Yes / ~~No~~

*If **"YES"** to any of the questions the UEC/DEC/SEC should refer to Finance (*insurance-services@strath.ac.uk*).*

4.1.1 For NHS applications only - Employee Activity Form

Has NHS Indemnity been provided?	Yes / No
Are Medical Practitioners involved in the project?	Yes / No
If YES, will Medical Practitioners be covered by the MDU or other body?	Yes / No

This section aims to identify the staff involved, their employment contract and the extent of their involvement in the research (in some cases it may be more appropriate to refer to a group of persons rather than individuals).

Chief Investigator		
Name	**Employer**	**NHS Honorary Contract?**
		Yes / No
Others		
Name	**Employer**	**NHS Honorary Contract?**
		Yes / No

		Yes / No
		Yes / No
		Yes / No

Please provide any further relevant information here

Participant Information Sheet for [Interview]

Name of department: Department of Architecture
Title of the study: Social and Cultural Sustainability in Architectural Education in India

Introduction
The researcher is Krishnokoli Dutta, a doctoral student at the University of Strathclyde. She can be contacted at krishnokoli.dutta@stath.ac.uk .

What is the purpose of this investigation?

The aim of the research is the incorporation of social and cultural sustainability in Architectural Education in India. The objective of this data collection procedure is to understand how social and cultural sustainability topics and the social role of architects are interpreted by the architectural academic experts of India. The ideation and interpretation of the topic by the academic experts is needed to be understood, so that the possible forms of its introduction to the students may be mapped and knowledge gaps can be bridged.

Do you have to take part?
The investigation shall be conducted in the form of a semi-structured interview, with questions pertaining to the understandings, experiences and opinions of the participant towards the topic of investigation, i.e, Social and Cultural Sustainability in Architectural Education in India. Participation in the investigation is voluntary, and the participant's decision to participate in the investigation will be respected at all points, and even if they decide to refuse or withdraw their participation, their decision will be respected.

What will you do in the project?

The participant is expected to participate in a semi-structured interview, expressing their views, opinions, experiences and ideas about social and cultural sustainability and Indian architectural curriculum. The interview will be recorded for educational purposes. The interviews do not involve any form of payment or re-imbursement. They will be held online over Zoom meeting sessions, and will be roughly 40- 60 minutes long. The investigation will be held in between April '22 to May '22, in accordance to the availability of time of the participants.

Why have you been invited to take part?

The participants of the semi-structured interviews are chosen through purposive sampling method. They are Indian architects who are deemed experts in terms of architectural pedagogy. They are veteran architects, heads of esteemed institutes, office bearers in Council of Architecture, practitioners heading government projects, architectural authors and architectural socialists. Their perspectives and concerns for social and cultural sustainability in architectural education in India will provide a critical overview of relationship between professional practice requirements and architectural education in context of India.

What are the potential risks to you in taking part?

There is no potential risk involved in participating in the investigation.

What happens to the information in the project?

All measures of confidentiality and anonymity of the participants shall be taken. No information from the interviews needs to be disclosed, but will only be used for this particular research work. Data shall be securely stored in researcher's system and in the university Cloud system only.

The University of Strathclyde is registered with the Information Commissioner's Office who implements the Data Protection Act 1998. All personal data on participants will be processed in accordance with the provisions of the Data Protection Act 1998.

Thank you for reading this information – please ask any questions if you are unsure about what is written here.

What happens next?
If the participant is happy to be involved in the project, they will be asked to sign a consent form to confirm this.

If the participant does not want to be involved in the project then thank them for their attention.

The results of the research will be published in articles, and shall be discussed in conferences and seminars. If the participant is willing, they will be provided with feedbacks after the investigation is complete.

Researcher contact details:

Name – Krishnokoli Dutta

Department – Department of Architecture, University of Strathclyde

Contact – krishnokoli.dutta@strath.ac.uk

Address – 6th floor, James Weir Building, 75 Montrose Street, Glasgow G1 1XJ

This investigation was granted ethical approval by the University of Strathclyde Ethics Committee.

If you have any questions/concerns, during or after the investigation, or wish to contact an independent person to whom any questions may be directed or further information may be sought from, please contact:

Secretary to the University Ethics Committee
Research & Knowledge Exchange Services
University of Strathclyde
Graham Hills Building
50 George Street

Consent Form for Interview

Name of depart: Department of Architecture
Title of the study: Social and Cultural Sustainability in Architectural Education in India

□ I confirm that I have read and understood the information sheet for the above project and the researcher has answered any queries to my satisfaction.

□ I understand that my participation is voluntary and that I am free to withdraw from the project at any time, up to the point of completion, without having to give a reason and without any consequences. If I exercise my right to withdraw and I don't want my data to be used, any data which have been collected from me will be destroyed.

□ I understand that I can withdraw from the study any personal data (i.e. data which identify me personally) at any time.

□ I understand that anonymised data (i.e. .data which do not identify me personally) cannot be withdrawn once they have been included in the study.

□ I understand that any information recorded in the investigation will remain confidential and no information that identifies me will be made publicly available.

□ I consent to being a participant in the project

□ I consent to being audio and/or video recorded as part of the project.

For investigations where it has been decided that "no fault compensation" cover will be provided the following wording needs to be included: In agreeing to participate in this investigation I am aware that I may be entitled to compensation for accidental bodily injury, including death or disease, arising out of the investigation without the need to prove fault. However, such compensation is subject to acceptance of the Conditions of Compensation, a copy of which is available on request. (PRINT NAME)
Signature of Participant: Date:

Interview Questions

1. Please mention your name, designation and the name of the institute you work in.

Social and Cultural Responsibility of an Architect

2. What should be the social standpoint of a professional architect? (Probe – Social and Cultural responsibility)
3. The United Nations has set up 17 Sustainable Development goals, which include No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Growth and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life below Water, Life On Land, Peace Justice and Strong Institutions, and Partnership for the Goals. Are the 17 UNSDG applicable to the socio-cultural positions of India pertaining to architecture?
4. The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas. In accordance to social and cultural sustainability, is there presently a common ground between the area

of concern and the area of influence for the architects, pertaining to the present socio-cultural conditions of India?

5. Architects in India are mostly commissioned by the government, or by the private owners of offices, commercial places, residences and condominiums. Hiring architects is considered to be an elite facility. Is the dominant culture of private ownership and gated communities disrupting the social role and responsibilities of the architects?
6. What are your reflections on how the topic of social and cultural sustainability is being dealt with in the curriculums of the global schools of architecture?

Architectural Education in India

7. What is your opinion of the evolution of architectural curriculum in India, starting from the colonial period to the present date? (Probe – Adequate changes in accordance to change in needs of users)
8. The present curriculum, as set by the council of Architecture, does it help in gaining perspective of the social role of a professional architect for a student?
9. Over the time, since the very beginning, has architectural education in India evolved enough to stay at par with the present needs of the users? (Probe - suggested improvements)
10. Is there any scope to accommodate the 17 UNSDG, within the architectural curriculum in India, for better social and cultural sustainability awareness among the students?
11. Presently, Social and Cultural Sustainability is being taught in only 17 institutes in India among the top 100 ranking institutes. Many institutes amongst these 17 have the subject as an elective, the choice of which lies in the availability of a faculty member who specialises in this topic. Apart from the sparse elective subjects, how can social and cultural sustainability as a subject, be included in the architectural education in India? (Probe – upgrade the present curriculum)
12. As per the literature review that has been done, there remains a considerable gap between what the students learn in theory and how much of it they apply in their design. How do we ensure that the topic of social and cultural sustainability will not fall into this gap?

Decolonisation of Architectural Education in India

13. The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Does the present curriculum need a cleansing in the form of decolonisation? (Probe – architectural identity)
14. Do you think decolonisation of architectural education will help in promotion of the topic of social and cultural sustainability in terms of the present conditions of India?

Role of Council of Architecture

15. Do you think inclusion of this topic in programs of Council of Architecture Training and Research Centre will help create awareness amongst the professional architects and the academicians of India?
16. The subjects taught in the bachelor degree program, are currently divided into the following categories: Professional core, Building Services and Applied Engineering, Professional Elective, Skill Enhancement Courses and Professional Ability Enhancement Compulsory

Courses. The topic Social and Cultural sustainability can be vaguely found under the category of Professional Elective. Do you think the topic should have a separate category to itself, or be categorised under any other present categories?

17. Is there any additional approach that you would like to add for the promotion of the topic?

Participant Information Sheet for Questionnaire

Name of department: Department of Architecture Title of the study: Social and Cultural Sustainability in Architectural Education in India

Introduction The researcher is Krishnokoli Dutta, a doctoral student at the University of Strathclyde. She can be contacted at krishnokoli.dutta@stath.ac.uk .

What is the purpose of this investigation?

The aim of the research is the incorporation of social and cultural sustainability in Architectural Education in India. The objective of this data collection procedure is to examine how social and cultural sustainability topics are introduced both in the studio practice and in the lecture courses. The ideation and interpretation of the topic by the faculty members of the different institutes of Architecture is needed to be understood, so that the possible forms of its introduction to the students may be mapped and comprehended.

Do you have to take part?

The investigation shall be conducted in the form of answering a questionnaire form, with questions pertaining to the understandings, reflections and opinions of the participant towards the topic of investigation, i.e, Social and Cultural Sustainability in Architectural Education in India. Participation in the investigation is voluntary, and the participant's decision to participate in the investigation will be respected at all points, and even if they decide to refuse or withdraw their participation, their decision will be respected.

What will you do in the project?

The participant is expected to participate in an investigation by filling out a questionnaire form, expressing their views, opinions, reflections and ideas about social and cultural sustainability and Indian architectural curriculum. The answers will be recorded for educational purposes. The participations do not involve any form of payment or re-imbursement. They will be mailed out to the faculty members, and will have 25 questions. The investigation will be held in between MArch '22 to May '22, in accordance to the availability of time of the participants.

Why have you been invited to take part?

The participants of the questionnaire are chosen through stratified random sampling. They are the faculty members of the different institutes of Architecture from the different geographical zones of India at the undergraduate level. The number of participants from the different committees are:

1. 6 members from the North zone
2. 6 members from the East zone
3. 6 members from the South zone
4. 6 members from the West zone
5. 6 members from the Central zone

What are the potential risks to you in taking part?

There is no potential risk involved in participating in the investigation. Page 17

What happens to the information in the project?
All measures of confidentiality and anonymity of the participants shall be taken. No information from the investigation needs to be disclosed, but will only be used for this particular research work. Data shall be securely stored in researcher's system and in the university Cloud system only.
The University of Strathclyde is registered with the Information Commissioner's Office who implements the Data Protection Act 1998. All personal data on participants will be processed in accordance with the provisions of the Data Protection Act 1998.
Thank you for reading this information – please ask any questions if you are unsure about what is written here.
What happens next? If the participant is happy to be involved in the project, they will be asked to sign a consent form to confirm this.
If the participant does not want to be involved in the project then thank them for their attention.
The results of the research will be published in articles, and shall be discussed in conferences and seminars. If the participant is willing, they will be provided with feedbacks after the investigation is complete.
Researcher contact details:
Name – Krishnokoli Dutta
Department – Department of Architecture, University of Strathclyde
Contact – krishnokoli.dutta@strath.ac.uk
Address – 6th floor, James Weir Building, 75 Montrose Street, Glasgow G1 1XJ
This investigation was granted ethical approval by the University of Strathclyde Ethics Committee.
If you have any questions/concerns, during or after the investigation, or wish to contact an independent person to whom any questions may be directed or further information may be sought from, please contact:
Secretary to the University Ethics Committee Research & Knowledge Exchange Services
University of Strathclyde Graham Hills Building 50 George Street Glasgow G1 1QE
Telephone: 0141 548 3707 Email: ethics@strath.ac.uk

Consent Form for Questionnaire

Name of department: Department of Architecture Title of the study: Social and Cultural Sustainability in Architectural Education in India Page 18

- I confirm that I have read and understood the information sheet for the above project and the researcher has answered any queries to my satisfaction.
- I understand that my participation is voluntary and that I am free to withdraw from the project at any time, up to the point of completion, without having to give a reason and without any consequences. If I exercise my right to withdraw and I don't want my data to be used, any data which have been collected from me will be destroyed.
- I understand that I can withdraw from the study any personal data (i.e. data which identify me personally) at any time.
- I understand that anonymised data (i.e. .data which do not identify me personally) cannot be withdrawn once they have been included in the study.
- I understand that any information recorded in the investigation will remain confidential and no information that identifies me will be made publicly available.
- I consent to being a participant in the project
- I consent to being audio and/or video recorded as part of the project.

For investigations where it has been decided that "no fault compensation" cover will be provided the following wording needs to be included: In agreeing to participate in this investigation I am aware that I may be entitled to compensation for accidental bodily injury, including death or disease, arising out of the investigation without the need to

prove fault. However, such compensation is subject to acceptance of the Conditions of Compensation, a copy of which is available on request. (PRINT NAME)
Signature of Participant: Date:

Questionnaire

1. Name –
2. Designation –
3. Institute –
4. Years of Experience –

Sustainability

5. In terms of inclusion of sustainability in the architectural curriculum, what are the types of sustainability that should be focussed on?

- Political
- Social
- Cultural
- Ecological
- Economical

6. The United Nations Sustainable Development Goals include No Poverty, Zero Hunger, Good Health and Well-being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Work and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life Below Water, Life on Land, Peace, Justice and Strong Institutions, and Partnerships for the Goals. From the List of the 17 UNSDG, do you think any of them can be achieved for India through architecture?

Yes Maybe No
If *Yes* or *Maybe*, which ones?
……
……..

Society and Culture

7. By the current conditions, should architectural education and profession be concerned with the socio-cultural situations of India?

Yes Maybe No
Why?
……
……..

8. In your opinion, do architects have a particular social responsibility professionally?

Yes Maybe No
Please elaborate on your opinion.
……
……..

9. On the scale of 1 to 5, 1 being *No Affect*, and 5 being *Completely Effective,* how much can architectural education affect the professional influence the sense of social responsibility amongst professionals?

1 2 3 4 5

1O. On the scale of 1 to 5, 1 being *Not relevant at all*, and 5 being *Inseparable part,* what is the relevance of social and cultural sustainability with respect to India's socio-cultural scenario?

1 2 3 4 5

11. The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas. Does the area of professional influence converge with the present area of concern?

Yes Maybe No

If *Yes* or *Maybe*, please briefly explain how?

……
……

Architectural Education

12. In the previous times in India, architecture was taught through the process of apprenticeship. The student would have to spend a considerable time with a master architect and learn the craft over the time, until he would be considered a master himself. The cerebral form of architectural education came into being since the colonial age. In your opinion, does the present cerebral form of architectural education produce better output, as compared to the historic apprenticeship method?

Yes Maybe No

Please elaborate on your opinion

……
……

13. On the scale of 1 to 5, 1 being *Not important*, and 5 being *Compulsory part,* how important is the role of social and cultural sustainability in architectural education?

1 2 3 4 5

14. Since the colonial period, over the years, has there been appropriate changes made to the syllabus of architectural education?

Yes Maybe No

If *Yes* or *Maybe*, please elaborate on the changes

……
……

15. Does the current undergraduate curriculum and syllabus set by Council of Architecture focus on Social and Cultural sustainability?

Yes Maybe No

If *Yes* or *Maybe*, please elaborate on the focus methods

……
……..
16. If *Yes,* is the current amount of focus sufficient for the upheaval of realisation of the social and cultural responsibilities amongst the students?

Yes Maybe No
If *Yes* or *Maybe*, please explain briefly, how?
……
……
17. The people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas form the area of concern. Does the set syllabus in architectural education, as per Council of Architecture, do justice to the current needs as per the concerns of the present times?

Yes Maybe No
If *Yes* or *Maybe*, please briefly explain how?
……
……..
18. Is social and cultural sustainability covered equally both in the theory lessons and in the design assignments?

Yes Maybe No
If *Yes* or *Maybe*, please briefly explain how?
……
……..
19. On the scale of 1 to 5, 1 being *None at all*, and 5 being *First priority,* how much priority is given to social and cultural sustainability considerations in design assignments?

1 2 3 4 5

Scope of Council of Architecture

20. On the scale of 1 to 5, 1 being *None at all*, and 5 being *Absolute importance,* in accordance to the set syllabus by the Council of Architecture, how much importance is given to the topics of social and cultural sustainability?

1 2 3 4 5
21. Is the topic of social and cultural sustainability appropriately covered in any of the COA TRC programs?

Yes Maybe No
If *Yes* or *Maybe*, please briefly elaborate.
……
……..
22. On the scale of 1 to 5, 1 being *None at all*, and 5 being *Absolute importance,* how much importance is given to the topic of social and cultural sustainability in the workshops and conferences conducted by COA TRC?

1 2 3 4 5

23. Is there a gap between theory and design in terms of Social and Cultural sustainability as per the syllabus set by the Council of Architecture?

Yes Maybe No
If *Yes* or *Maybe*, please briefly explain how?
……
……
24. Should the subject of social and Cultural sustainability be made compulsory in the theory curriculum?

Yes Maybe No
If *Maybe* or *No*, please briefly explain why?
……
……
25. Should social and cultural sustainability in design be made a primary marking criteria?

Yes Maybe No
If *Maybe* or *No*, please briefly explain why?
……
……

Decolonisation of Architectural Education

26. The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Is Decolonisation of architectural education relevant to present curriculum in India?

Yes Maybe No
If *Yes* or *Maybe*, please briefly explain how?
……
……
27. On the scale of 1 to 5, 1 being *None at all*, and 5 being *Considerbaly effective,* how much will a decolonisation drive affect in establishing the importance of social and cultural sustainability in Indian architectural education?

1 2 3 4 5

Appendix 5: Details of participants of Semi-structured Interviews

Details of participants grouped under category 'Veteran Academicians'

	A : Gender	B : Location	C : Age
1 : VA01	Female	North	66-75
2 : VA02	Male	East	66-75

Details of participants grouped under category 'Academician and Practitioner'

	A : Gender	B : Location	C : Age
1 : AP01	Male	West	46-55
2 : AP02	Male	North	56-65

Details of participants grouped under category 'Head of Institutes'

	A : Gender	B : Location	C : Age
1 : HI01	Male	North	46-55
2 : HI02	Female	West	56-65
3 : HI03	Female	West	56-65
4 : HI04	Male	South	46-55
5 : HI05	Male	East	46-55
6 : HI06	Female	West	46-55
7 : HI07	Male	East	56-65

Details of participants grouped under category 'Practitioner and Government Office Bearers'

	A : Gender	B : Location	C : Age
1 : PGO01	Male	East	56-65
2 : PGO02	Male	East	46-55

Details of participants grouped under category 'Social Activist and Authors'

	A : Gender	B : Location	C : Age
1 : SAA01	Female	West	35-45
2 : SAA02	Male	North	46-55

Details of participants grouped under category 'Council Office holder'

	A : Gender	B : Location	C : Age
1 : COH01	Female	North	46-55

Appendix 6 – Interview Transcriptions

The experts have answered most questions directly, however, some of them did not wish to answer questions related to the role of Council of Architecture. Some of them have not answered the questions related to decolonisation of architectural education in India, and have mentioned it as irrelevant. Lastly, some of them have grouped their answers related to these topics together in the additional comment section, mentioned as Q.17 in the transcripts. They all have been included in the analysis of the data collected from these interviews.

Appendix 6.1: Interview Transcription - VA 1

1. **Please mention your name, designation and the name of the institute you work in.**

- VA1, Retired professor, former Head of Department, Department of Architectural Conservation, Former Dean of Study at school of Planning and Architecture, Delhi.

<u>Social and Cultural Responsibility of an Architect</u>

2. **What should be the social standpoint of a professional architect? (Probe – Social and Cultural responsibility)**

-

3. **The United Nations has set up 17 Sustainable Development goals, which include No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Growth and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life below Water, Life On Land, Peace Justice and Strong Institutions, and Partnership for the Goals. Are the 17 UNSDG applicable to the socio-cultural positions of India pertaining to architecture?**

- Some of them maybe relevant

4. **The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas. In accordance to social and cultural sustainability, is there presently a common ground between the area of concern and the area of influence for the architects, pertaining to the present socio-cultural conditions of India?**

- People cannot be pushed in any direction. The time when architecture studies were very socialistic, at that time the policies of India supported that way of thinking. Based on the government policies the education module was decided. There was a trend towards a larger view for common issues for everybody. When I started teaching, the same school and teachers they were only giving HIG housing. The choice of what is taught in schools, actually answers the situation that is going on. American market strategy, the capitalist system is also at play today, which was not there before. Now the architects are a part of the capitalistic view. The schools of architecture are told what to do, and they just follow the given outline. There is no further probing into what should be done and how it should be done. They don't even get a chance to probe into it, because the management private

schools will not allow that. The management has no professional architects in them, it is all about money making now.

5. **Architects in India are mostly commissioned by the government, or by the private owners of offices, commercial places, residences and condominiums. Hiring architects is considered to be an elite facility. Is the dominant culture of private ownership and gated communities disrupting the social role and responsibilities of the architects?**

- The socialistic aspect of architectural practice was much stronger earlier. IT has been destroyed in the recent years. In those years architects were not simply old what they need to do. They did what they felt was needed. People is really forcing a lot of things on other people today, not taking the bigger picture into consideration.

6. **What are your reflections on how the topic of social and cultural sustainability is being dealt with in the curriculums of the global schools of architecture?**

- No Idea.

<u>Architectural Education in India</u>

7. **What is your opinion of the evolution of architectural curriculum in India, starting from the colonial period to the present date? (Probe – Adequate changes in accordance to change in needs of users)**

- 50 years ago, we were taught the right things to do, but not in this new language that is being promoted. That is the only difference from today's curricula. The new regime with these fancy words is rather superficial. It seems to follow some foreign regime. Post-independence, there were young teachers, and there was a very socialistic aspect to teach architecture in the classes. It was not commercial, and rather what was needed for the country. There were no assumptions made. Nobody thought architecture had anything to do with culture. Just that it was in built that what people in the village may need, and what people in different regions may need in accordance to their life and habits. People did not have to go out of their way to talk about culture, because the users do not understand culture, they simply understand their accepted way of life.

8. **The present curriculum, as set by the council of Architecture, does it help in gaining perspective of the social role of a professional architect for a student?**

- It is all becoming like giving a sermon to people, about what they have to do. There are nearly 500 schools of architecture in India today. They are not able to impart what is architecture to the students, how do we expect them to teach topics like this? It will only confuse the students more. They can only teach as much as they do. This topic is not linear. It is a very complex situation and region of education in discussion. All of this makes it very difficult to even to start with the introduction in the educational curricula.

9. **Over the time, since the very beginning, has architectural education in India evolved enough to stay at par with the present needs of the users? (Probe - suggested improvements)**

- Whatever is needed for India is always very complex. It is never simple, and one size doesn't fit all.

10. **Is there any scope to accommodate the 17 UNSDG, within the architectural curriculum in India, for better social and cultural sustainability awareness among the students?**

- We need to develop ourselves according to our current needs, but the terms of culture and society, seem to be a foreign norm, and is in trend, we should not simply follow these terms just for following the trend. These are very contagious. These are universal topics, the

methodology needs to be figured about how to deal with topics like these, and alternative ways of looking at it, so that it becomes easy to handle.

11. **Presently, Social and Cultural Sustainability is being taught in only 17 institutes in India among the top 100 ranking institutes. Many institutes amongst these 17 have the subject as an elective, the choice of which lies in the availability of a faculty member who specialises in this topic. Apart from the sparse elective subjects, how can social and cultural sustainability as a subject, be included in the architectural education in India? (Probe: upgrade the present curriculum)**

- Words like sustainability has always been there, maybe in different terms and contexts, but they were always there. Maybe more common sense needs to be applied to improve and include things in the way it is needed in. It is just being provided in a new packaging now. Similar concepts must be made to understand, that will lead to the same results. By putting in new words in the syllabus, only the students will be more confused. The students come from a different paradigm altogether, and something different is happening in schools, and something different in the lessons, so things get lost in the communication.

12. **As per the literature review that has been done, there remains a considerable gap between what the students learn in theory and how much of it they apply in their design. How do we ensure that the topic of social and cultural sustainability will not fall into this gap?**

- It needs to be taught in a way that the gap goes away. The design needs to incorporate some theory subjects like theory of architecture, and history of architecture, and new curriculum needs to be worked out, where the way of working is different from how it is now. When the topics are talked about, it only remains in the talks. When we talk about modern buildings, they are never related to the contexts. It is hoped that the students will relate them, but they cannot do it. It is all new to them.

<u>Decolonisation of Architectural Education in India</u>

13. **The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Does the present curriculum need a cleansing in the form of decolonisation? (Probe – architectural identity)**

- We cannot be so extreme about it. There must have been some good points with the colonial way of education. The biggest influence that is coming from the West today is the internet. The students know that they can get ideas from the box.

14. **Do you think decolonisation of architectural education will help in promotion of the topic of social and cultural sustainability in terms of the present conditions of India?**

-

<u>Role of Council of Architecture</u>

15. **Do you think inclusion of this topic in programs of Council of Architecture Training and Research Centre will help create awareness amongst the professional architects and the academicians of India?**

-

16. **The subjects taught in the bachelor degree program, are currently divided into the following categories: Professional core, Building Services and Applied Engineering, Professional Elective, Skill Enhancement Courses and Professional Ability Enhancement Compulsory Courses. The topic Social and Cultural sustainability can be vaguely found under the category of Professional Elective. Do you think the topic should have a separate category to itself, or be categorised under any other present categories?**

- Architects are not doing the kind of work that they were doing earlier. Now till very recently, architects were getting jobs on their own name. In old times, architects got huge projects by their own name. That has changed today. And what is happening is all about marketing and financing. Management people hire architects to work for them. That is a big difference in the scenario of the profession. The status of the professional is also not the same. An architect's role today is very different, and there is no comparison with the architects of the yesteryears. Everything is so commercial, the need for culture and social realms are not needed any more. The gap needs to be thought about in the education of architecture in India. The client now has to adjust themselves to everything that is being provided.

17. **There is subject called Professional practice, but the topic of discussion never plays any role in it. What is actually introduced or dealt with in the classes need to be understood, within the system of lectures, and formal education, it is too less to make a difference in the mind of a person. The change will come if the person starts practicing and some of the points mentioned in the lectures comes about in the project. Then they develop some expertise in the area, and they start understanding. Otherwise, no difference comes. The whole system is very careless, about whether the students know and understand what to know and what to do. Is there any additional approach that you would like to add for the promotion of the topic?**

- Maybe a different kind of education altogether needs to be thought about. Maybe the system of apprenticeship needs to be reconsidered, and that kind of changes need to come, because they are realistic and truthful, as per cultural and societal needs. It is practical and very straightforward, and brings the people together, not only in paper, but actually by working together and learning together. We need to have both the cerebral way of learning and the apprenticeship, in good quantities, to make a difference. Maybe the number of subjects can be reduced so that there is one or two years to work with people on sites, and learning. We are talking more about meeting with people and interacting, because that is the only way in which they can come to understand culture and diversity, and the relationship of the people with the spaces. In a country as vast as India, more practical field work is needed for better understanding. Cross cultural work, spending time with different groups in different places, so that they can get the sense of things from within.
- Travelling around again will increase the time and cost. So, getting to know all of this through the formal classes should be done. So, to understand the diversity, inter-institutional exchanges can be done to promote the cause. Also, anthropology, specifically in the context of India, can be introduced as a subject to understand the diversity, of how people live, and build houses. There are sociology courses, but we need to go beyond the basic social classes, and as it happens on the grounds, in areas of living in such spaces. These are new topics to teach, so a lot needs to be accomplished, and this will take a lot of time. New topics are not easily accepted anyway.

Appendix 6.2: Interview Transcription - VA 2

1. **Please mention your name, designation and the name of the institute you work in.**

- VA2, Ex- Executive Director (EZ& NEZ), HUDCO; Mentor and Prof of Tirthankar Mahaveer University, Moradabad; Reader (Assoc Prof), IITR; Cf Town Planner, RG Bhutan; Principal, GCA, Guwahati; Sr. Arch, CPWD; Asst Cf Arch, NTPC; Member of BOS JU, WBUT etc. Board Member of HDA, WBHB, SHDB etc

Social and Cultural Responsibility of an Architect

2. **What should be the social standpoint of a professional architect? (Probe – Social and Cultural responsibility)**

- Depends on the user group. The same stand does not hold true for everyone. There are different people from different income group, some can afford, some cannot, and they all need different groups. The point of growth and transformation should be there always. In India one client can afford Antillia as a residence, and thus has it. The other clients may have different needs in the form of space for work, rest and growth. The standpoint of architecture for poor clients cannot be aesthetics. It should be socio-economically and culturally supportive. All of it depends on the needs and the background of the users, so an architect must first define their user to understand their standpoint clearly.
- Poverty must motivate the architects. With partial help from the government and technology, if an architect becomes socially sensitive, they will be using rat trap bond, roofing L-panel, brick arch etc. So, poverty, zero hunger, good health, all of them can be achieved. Growth and transformation are the most essential for the poorest community. Without them there is no national growth. Everything including space segregation can promote growth. Community wise the poor lives out of fission. The rich lives out of fusion. Community strength becomes individual strength. Much can be achieved from infrastructure. Cities are also forms of communities. Sustainability can be started from individual homes, only then it can be achieved at all sectors of the community. Responsible consumption and limited wastage can be of help.

3. **The United Nations has set up 17 Sustainable Development goals, which include No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Growth and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life below Water, Life On Land, Peace Justice and Strong Institutions, and Partnership for the Goals. Are the 17 UNSDG applicable to the socio-cultural positions of India pertaining to architecture?**

- Architecture is directly linked to local based infrastructure, the human needs, water and local labour. All of this is easily available for rural areas. For urban users, techniques are different, however that can generate income, inequality problems can be solved. Architecturally waste management problems can be solved, which can again create more sustainability in other aspects. This can lead to community wise improvement. The entire process can be structured and systemised. Health, mother and childcare, everything can be linked and improved under such structures. This can be aided by government for a limited time period, which can then produce a cycle. Architecture can directly and indirectly be involved in such processes. The architects, along with sociologists can lead into such movements. Slum improvement and rehabilitation can be achieved through buildings with

25 ft wide corridors. Previously the occupiers of the slums, who are tailors or hawkers by profession can all occupy some space from the corridor. The corridors that connect the buildings can also be turned into shopping streets. Socially and culturally supportive design can be incorporated like that. The entire form of architecture becomes a mechanism, which needs to be understood by architects, and then be explained to the users. That is how the whole mechanism becomes sustainable.

4. **The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas. In accordance to social and cultural sustainability, is there presently a common ground between the area of concern and the area of influence for the architects, pertaining to the present socio-cultural conditions of India?**

- Our main concern is users. When we identify our job, we need to understand our clients. Products produced by people living below poverty line, in the limited resources, is being consumed by the richest consumers. Social and cultural stigma is ingrained in Indian society. The same stigmas were supported by the social laws in India over 5000 years ago. It is very deep-rooted. Culture grows into generations. Social sensitivity should be the main concern. It is the responsibility of the teachers of architecture is to take the students and make them realise in particular, what to notice. They must know what was there, and what it has become. From the villages to the high rises. Only through this the architects can realise their responsibilities. Students of architecture must be introduced to every level of the Indian society, from the Harijans to the slum dwellers. Architects dealing with humans must be knowledgeable.

5. **Architects in India are mostly commissioned by the government, or by the private owners of offices, commercial places, residences and condominiums. Hiring architects is considered to be an elite facility. Is the dominant culture of private ownership and gated communities disrupting the social role and responsibilities of the architects?**

- Different groups of users are categorised based on cost. Automatically everybody comes under the radar. The middle-class users are institutionalised under the promoter culture. They have a large market. Artisans, craftsmen and small traders may have some problems. They for 50% of the population. They do not come under the eligibility purview of the bank. They form the informal sector. There are government programs available for them, but they do not reach out to the architects.
- This is a social disruption that is happening. It is not that the high rise and gated communities directly disrupt. The distortion is caused because of the lack of empathy from the architects, they are largely responsible when creating space for the people living below the poverty line, it is not right for them to build the gated communities without any provision for ground space, or means for their income. These high rises decapitate the productivity of humans, bring people to state dependency from self-dependency. The entire community suffers thenceforth.

6. **What are your reflections on how the topic of social and cultural sustainability is being dealt with in the curriculums of the global schools of architecture?**

- There was a time when the syllabus of Australian universities took inspiration from Indian curriculum. Among the Indian architects, B.V. Doshi was very motivated.

Architectural Education in India

7. **What is your opinion of the evolution of architectural curriculum in India, starting from the colonial period to the present date? (Probe – Adequate changes in accordance to change in needs of users)**

- Previously it was not a user-oriented approach. It used to deterministic approach. The lack of objectivity and methodology was vivid. 1961-2011, in any institute, the first design project has always been residence. The model has not changed. Lack of documentation in different parts of India makes it difficult to map the differences. Changes have occurred in the society in the mean while. For updating themselves, it is very important for the architects to grab on these changes. Education should be assignment based. In the previous years there was no adequate thinking about architectural curriculum. It used to art-oriented, not science oriented. The science-oriented courses started in 1948, in Shibpur B.E. College.

8. **The present curriculum, as set by the council of Architecture, does it help in gaining perspective of the social role of a professional architect for a student?**

- These needs brainstorming. The council members are not well-oriented with the ground subjects. The COA syllabus feels inadequate. The practical subjects should commensurate with the theory subjects. That did not happen. So, the answer to the question is No.

9. **Over the time, since the very beginning, has architectural education in India evolved enough to stay at par with the present needs of the users? (Probe - suggested improvements)**

- It has not. The students evolve themselves, not the course. It is true that what they learn, and what they do on ground has a stark difference. F.AR. started as F.S.I in London. That history is lost in mere calculations. Today in India, F.A.R. has become the design guideline, while it should just be a calculation tool for the environment and nothing more for the professionals. The words ‘culture’ and ‘social’ are mentioned, but that is never enough. There is no relation between the current education curricula and the needs of the users. There is no design methodology in the curricula in accordance to the needs.

10. **Is there any scope to accommodate the 17 UNSDG, within the architectural curriculum in India, for better social and cultural sustainability awareness among the students?**

- Definitely. Much can be accommodated.

11. **Presently, Social and Cultural Sustainability is being taught in only 17 institutes in India among the top 100 ranking institutes. Many institutes amongst these 17 have the subject as an elective, the choice of which lies in the availability of a faculty member who specialises in this topic. Apart from the sparse elective subjects, how can social and cultural sustainability as a subject, be included in the architectural education in India? (Probe – upgrade the present curriculum)**

- Social and cultural sustainability is one such topic that is better accommodated into the humanities. So, they need to be imbibed well into the subjects. They also need to be applied into the design projects. These points should be highlighted through checklists. Students must be initiated through a process, where they speak and reflect through their own experiences as well. Everything should be analysed, based on the design objectives. The students must be absorbed into the problems, only then the designs will be fruitful. The teachers must also be concerned about this, because there is a clear gap. The topic remains ignored in present curriculum.

12. **As per the literature review that has been done, there remains a considerable gap between what the students learn in theory and how much of it they apply in their design. How do we ensure that the topic of social and cultural sustainability will not fall into this gap?**

•

Decolonisation of Architectural Education in India

13. **The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Does the present curriculum need a cleansing in the form of decolonisation? (Probe – architectural identity)**

- Not applicable. In India, everything including the local building systems and the architectural styles worked according to the local invaders. The same had happened for the Mughals, and the British. Indian architecture was never science based, or structural calculation based. Primarily Indian architecture had been very horizontal. Architecturally middle-east, Greece and Rome were much advanced. Indian architecture was much more art-based. As civilisation moves on, technology should advance in a way that is acceptable in every society, and should be easily available. That is how it should happen. Plan layouts like courtyard planning and ways of life can be incorporated and translated into spaces, that is the most decolonised the curriculum can get.

14. **Do you think decolonisation of architectural education will help in promotion of the topic of social and cultural sustainability in terms of the present conditions of India?**

- Social and cultural sustainability, in North Indian architecture, like Chabuthra, baithak, community hall, these spaces must be studied and incorporated into urban context. Serious thoughts should be put into it.

Role of Council of Architecture

15. **Do you think inclusion of this topic in programs of Council of Architecture Training and Research Centre will help create awareness amongst the professional architects and the academicians of India?**

- COA needs to accept the problem, inclusion in curricular outline is needed. Change will be brought about through it.

16. **The subjects taught in the bachelor degree program, are currently divided into the following categories: Professional core, Building Services and Applied Engineering, Professional Elective, Skill Enhancement Courses and Professional Ability Enhancement Compulsory Courses. The topic Social and Cultural sustainability can be vaguely found under the category of Professional Elective. Do you think the topic should have a separate category to itself, or be categorised under any other present categories?**

- A separate segment cannot be ideally formed. The professional core should have the grammar, like descriptive geometry. Social and cultural sustainability is also a grammar. This is the needed grammar for architecture, and it should be stepped up from year to year. First year theory, second year theory and third year theory to be applied in design. By fourth year, it becomes an integral part of the process. This grammar must be taught thoroughly by second year.

17. **Is there any additional approach that you would like to add for the promotion of the topic?**

- We teach concept to the students. Concept is a synthesis of site conditions, users, climate and spatial ideation. Teacher's training is essential, but there is a gap. Proper training for the teachers can solve this problem. Only when teachers are properly sensitized about the topic, they can lead the students forward. Teaching interpretation needs to be based on analysis. In reality, profession is trying to survive economically. The profession has become very promoter oriented in the recent times; the entire thought process revolves around that. Thus, culture has taken a backseat. Sociology and culture walks hand in hand in economy. For the survival and betterment of the state of users, the three pillars of sustainability should go together. The base budget of the work should be below subsistence level, because the people living below the poverty line form the majority in the population. They have the most scope for growth, their urge for growth is maximum. The architects must incorporate the possibility for growth and transformation, otherwise the designs will only pull the users backwards. Space for growth should also be maintained along with equality. Basic requirement should be there along with a chance for growth. Solutions like high-rise cannot provide that. By solving the problem for the economically backwards, automatically the problems for the other classes will be taken care of.
- Architects have difficulty understanding how poverty, hunger or water shortage can be solved through architecture. This kind of problems reduces productivity of the users for gainful work. If problems like these can be solved, income may increase, which can lead to solving other architectural problems like sanitised toilets and other such needed innovations. The architects need to be motivated to solve these problems. Problems like gender inequality can be solved by sanitised toilets in the houses. Cultural inhibitions, economic need and social needs prohibits that. The architects must have social and cultural understanding. Cultural inhibitions prohibit cultural demands. Lack of culture needs to be addressed. Social and cultural sensitivity can be brought about by lowering the tolerance level of the users. Cultural standards must be raised, without that there cannot be any development. The architect must keep the minimum requirements in mind, instead of superfluous amenities. Looks should come after technological needs, social and cultural needs and capacity. The necessity must be estimated. As Laurie Baker said 'Do not do what is not necessary'. If these are kept in mind, the housing for backward classes, tribes, and every other such problem can be addressed.
- The problem is like a disease. It is a disease to not know our social and cultural existence.

Appendix 7.1: Interview Transcription – HI 1

1. **Please mention your name, designation and the name of the institute you work in**.
   HI1. Head of the Department, IIT Roorkee
   Social and Cultural Responsibility of an Architect
2. **What should be the social standpoint of a professional architect? (Probe – Social and Cultural responsibility)**

- There are a lot of interrelated things, and I would want to bring in that perspective. Before I answer this, I need to ask why should a student study architecture in the 21st century in India. The reason I am saying this is, the practice and the profession of architecture is moving in a particular way in India, and I have in general been speaking on various dimensions of it. I am also product of same school of thoughts. I think the purpose for this education is not to receive the education as it is, but is also to evolve, otherwise there will be no growth. What is the position of the profession in India? Only knowing that will tell you about the knowledge paradigm, the pedagogic state, and its relevance. One could study many dimensions of architecture, social, cultural, economic, ecological etc. but how is it valued? That is an important standpoint. Because today the whole idea of an architect is a licensed person who knows about the trade, the buildings, planning. Is it really happening that way? Is the architect considered that way, and does the architect knows about it? The current infrastructure, the way we build today makes me ask these questions. On a generic note, urban development is happening, in a way the whole paradigm of the architectural growth is happening, but they have been made synonymous with only the built paradigm, which is all about the materiality. Eventually the whole discourse has got displaced from the key goal, which was human needs. I feel contemporary architecture. We seemingly moved into a direction which was a departure from the purpose of human well-being, into the focus of economic dimension, where the space is a constraint, where business is important, where forma and symbolism needs to match the trend of the global development, as a consequence, disrespecting the context. Context is a large word, it means the social context, climatic context, regional and economic context, and many other dimensions, including the technological context. Architecture is run by the capitalistic force, not the social ones, and in that case, pedagogy is responding to that, by producing more architects who can do that, and eventually without doing it one cannot sustain in the profession. These are not my words; these are the feelers that I get from the people who are practicing. We architects have forgotten the social dimension, not as a leaf of a large tree, but as the sole purpose of the whole existence. In this paradigm, structure has been given so much importance that space making and place making, the social aspects are getting carried away, it is an architectural inequity, where the force is from the one who pays, and not from the one who uses. As a consequence, driven by those forces the architects are making glass boxes everywhere, and they can be heated and cooled by whatever mechanical means, and then conserving the energy, this is not in respect to the context at all. The large glass buildings do not have a single openable window, windows are a connection between the inside and the outside, in which way perhaps humans would like to engage with space, but it has been reduced to a fixed façade, which traps them with the heat, and continue to cool it by mechanical systems. The social flow is missing. It is a pertinent issue, because of which the training of the architects is becoming insensitive. People have perhaps higher power of intellect to use various tools, but the sense of social landscape is getting very insensitive. It

is a generic hunch, but then some various good projects have happened in the past few years as well. But the overall larger impact I s like a trend which is very unworthy of being a trained architect. Either the architects are being dictated, or they have no choice rather than doing some colourful interiors, make some interesting facades, but the architecture of sustainability, it is about sustenance with time, the timeless quality that the space brings in, we do not have that. Everything should look relevant to time in terms of time. The other perspective that I want to mention is that of the client who builds the project, the user who uses the project, but in the urban context there is the third aspect of the passive user. When these large IT parks, shopping malls, cages of boxes happen here and there, a very huge number of users are the passive users, whose economy runs around that space, like the street vendors, taxi drivers, the service providers, security guards. What is the social space for them? These people go out of their homes, but where are they going to work, and what is the identity of that place, is that work space humane, is it considered social, to the extent even the school students are being caged within the glass boxes today, and they can only interact with nature through presentations, rather than reality. The response to the situation is very sad. This age does not stand up for the social causes and needs. The architecture that is being created can become a trap for the users. The change, possibilities, transformations, those aspects, day by day, are becoming less controlled by humans, they are more digital, driven by technology. Somewhere or the other, it is affecting the wellbeing of the society. The social angle can be brought into the pedagogy, into the classroom, but unless we start observing around us, we cannot teach it to the students.

3. **The United Nations has set up 17 Sustainable Development goals, which include No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Growth and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life below Water, Life On Land, Peace Justice and Strong Institutions, and Partnership for the Goals. Are the 17 UNSDG applicable to the socio-cultural positions of India pertaining to architecture?**

- These are timeless questions we can always keep reflecting upon. The first goal of UNSDG is about no poverty. When we see these goals in the form of a matrix, they form a different perception. If we see them in circles, we have a different perception. There is a relation between what is shared is how it is visualised, how it is visualised is how it is perceived, and how it is perceived is how it is responded upon. As long as it is perceived as goal 1 or goal 5, it isolates the approach. If one works upon climate change, they are not working upon equality, and so on. This approach is faltering in many sections, and it is reflected upon the action. These goals are goals for the entire civilisation, whether education or not, they concern everyone. These goals have come out of a convergence of 200+ countries of the world and these 17 aspects are to which the entire globe converges. The whole aspect of learning architecture seems to be constricted to climate change. On the contrary, we should rather ask who is affected by the climate the most. If we talk about disaster, working every day in a glass box in 33 degrees is a disaster, workers walking back home over thousands of miles is a disaster, hunger is a disaster, but we do not bring these conversations inside the classroom. Instead of being empathetic, we have turned apathetic. If we look at the 17 SDGs as a wheel, each goal becomes a spoke in it, and we cannot run a wheel with only one spoke. There is an interdependence, inter linkage and interconnection between all of these

goals. Economy is a driver, climate change is a threat, but society and culture is all about people and at the centre of the movement, but somehow, economy and climate are taking the front seat. So, these SDGs first need to be understood in an interconnected way, through live case studies, through examples, through several contexts, and then the impact of architecture should be studied, otherwise we will design in a very arrogant way, where I and mine becomes too important and changes don't take place. It becomes a situation where we make choices for an entire generation of people and those choices need to be better, by understanding the whole concept.

4. **The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas. In accordance to social and cultural sustainability, is there presently a common ground between the area of concern and the area of influence for the architects, pertaining to the present socio-cultural conditions of India?**

- The architect is himself a part of this cycle. Usually, architects are very easily aligning to these driving forces, but then there are some architects who are stuck to their principles and their ethos. Those numbers are very small though. How will the profession sustain though? Sustainability is economic here, otherwise they can become social workers. It is not only about big projects; it is also about small projects. When they design a house for people who cannot afford it, even the term architecture is foreign to India. The origin of the term is Greek, coming from art and techno. In India, majority of the population, live on this part of the margin, and how many of them are served by architects? 7—80% of the population cannot even afford an architect. So, the profession that we are talking about is actually only serving 5-10% people in the concentration of the cities. So instead of saying we have schools of architecture, we can say that we have schools of urban architecture, the rest is architecture of the people by themselves. Unless the architects truly intervene, nothing can be done. To intervene they must know, and to know they need resources, and that is where I feel the gap is. They don't know the context of India, as the major context of architecture comes from books, in which what we learn is materiality and technology, but there is no experimentation with the context. As a consequence, even the craft and culture are dying. The ground is common, it always had to be, but the forces of decision making are mostly on sided, except for projects where the users also participate.

5. **Architects in India are mostly commissioned by the government, or by the private owners of offices, commercial places, residences and condominiums. Hiring architects is considered to be an elite facility. Is the dominant culture of private ownership and gated communities disrupting the social role and responsibilities of the architects?**

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6. **What are your reflections on how the topic of social and cultural sustainability is being dealt with in the curriculums of the global schools of architecture?**

- I am not fully aware, so my answer will be limited to my experiences. I have some collaboration in Germany and Sri Lanka. Even in U.K, some schools have moved into a modern way in which these conversations are part of the elective courses, because the knowledge and documentation is increasing. It is hard to bring everything into the classroom. Studio cultures are all about what the architects should be making, rather than only theory. These discourses should be brought as part of a studio problem, maybe not as

a complete course, like projects for designing public spaces. We try to introduce ideas like social space, personal space in theory subjects like Theory of Design. So, it is to introduce in one way or the other the social and cultural aspects of architecture. I think it is a difficult thing to do sometimes. Sometimes, individual students take up these topics for their dissertation, and have done some good job. In 2016, in Berlin, I had been looking for sociologists, not architects, to work upon social discourse, how people behave, I find that knowledge is not available. Many architects say after design this space would be successful, as they expect public to behave in a certain way. Dictating behaviour cannot be socially sustainable. Majority of architects still look at this as theory. Many architects who introduce themselves as working on sustainability, end up meaning they have been working on climate responsive architecture.

<u>Architectural Education in India</u>

7. **What is your opinion of the evolution of architectural curriculum in India, starting from the colonial period to the present date? (Probe – Adequate changes in accordance to change in needs of users)**

- I have seen it only ever since I have started studying architecture. Grossly, architecture has not evolved. It might sound a bit harsh. By meaning not evolved, the pace and the direction in which it should have responded, I don't think it has gone there. This is because a lot of good institutions have happened, they have great masters, and the influence has been reflected in the curricular context. The first generation of architects like A. P. Kanvinde, Walter Gropius, they had set the direction for Indian architecture in the post-independence era through a combination of modernism and Indianism, which later became Indian modernism. But that is a respectful form of architecture where they respected the context, respected the site, the future, and the thought and fabrication lead to masterpieces, and they were sustainable. At the same time, the kind of evolution that should have happened in all these years, but did not happen, is perhaps because we as architects in India did not allow ourselves to develop more knowledge. We have always been learning architecture from borrowed interpretation and knowledge. History of Indian Architecture, we read Percy Brown. Things have not changed too much. It is actually not about the curriculum; it is also about content and delivery. Curriculum is based on content, we never exerted the level of the content, and there the curriculum lacked. These debates always draw dual opinion. A country with several thousand years of history, in a few decades did not have adequate change in architecture, and of which, we do not know the future of sustainability. Rather we have examples of sustainability from the past, when the term sustainability was not coined. Ever since the term has been coined, we have distanced away from the practice. The content itself requires research to be generated, authenticated, and then to be curated for the classrooms. That content has to be understood by the faculty and they have to be sensitized. This means they should have first be involved in that kind of content, only then they can speak about it in classrooms. The carrier of the content, and how they carry it, is also important. The architectural education suffers from the assumption that it is being dealt with well. It is being dealt to a new audience, with new context, and the present generation has very limited time span of attention by virtue of blended learning models. The question is who is ready to come and listen to the content and who is ready to come and deliver a content? Thus, education is a formality, people listen to talks and there is no understanding. The good thing happens when the participation is from both sides and there

is a lot of engagement. India did not value researching towards architectural content. Whether students learn architecture in Chennai or Cuttack or Roorkee, they all earn the same thing, the local content is missing. Architecture would be a disaster if everyone learns the same things and deliver the same results. As a consequence, now, we are suffering from a new crisis of identity, everything looks the same.

8. **The present curriculum, as set by the council of Architecture, does it help in gaining perspective of the social role of a professional architect for a student?**

- I appreciate what COA is trying to do on the note that it is bringing a little more flexibility or agility into it. It is opening up new doors 100% know how other schools of architecture would adopt that. We in particular look at it as something that we are not violating, while we are being innovative in context to what IITs expect us to do. We have to follow some credit cultures, and around it we have to know what council has said. We also independently think of what we think should be delivered, because, brain is also a material, and a child's brain, while it should grab everything, they come through a very competitive exam which is highly analytical. These kids have been very much immersed into solving maths and physics, they have never had a chance to think what architecture is. They have to be given some benefit of doubt. Most of them have no clue, they only think of buildings. It is very aspirational, and sometimes they think architecture does not have much technical component. The mind works very differently, because in Indian Education we rarely spend time in learning total observation and aesthetic appreciation of reality. Unless that happens, there is a sense of competition. This is the psychology of children and the society is responsible for that. This brain is trained and coached towards greater analytics; they cannot iterate. Change is a very big word of resistance in an analytical brain. There is a conflict in pedagogy there. COA is a large mandate, but I doubt if they have done any research on that, how different children could be pushed in different formats of excellence in architecture. Council has definitely initiated something which we must give credit to. The other challenge is the child wants to know where they will be employed after this. So, there is this curriculum of idealism and there is professionalism. On one side we want to teach them how profession works, but in reality, the profession does not work with such clean hands. The construction industry, the bye-laws, the violations, we teach them not to do it. The gaps between the theory and practice makes it more difficult for us to stay honest to the curriculum. The question is when the curriculum will say the truth. Sometimes the education is suffering because of the diplomacy, which will not say the truth. After the students do their bachelors o masters, it is assumed that they can teach. Even in industry there is a training for 3 months to consider one worthy, but to become a teacher, in India there is no training, which is ridiculous. In a classroom it is the biggest foolishness to expect all students have the same capacity, and will respect them being taught all in the same way. Since that is not considered, the students get divided and tagged as good or bad. The orientation of the faculty towards the delivery is important. The child is looking at the classroom and what is happening there, not at the curriculum.

9. **Over the time, since the very beginning, has architectural education in India evolved enough to stay at par with the present needs of the users? (Probe – suggested improvements)**

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10. **Is there any scope to accommodate the 17 UNSDG, within the architectural curriculum in India, for better social and cultural sustainability awareness among the students?**

- Where there is a will there is a way. There is always a scope. The questions are 'why not' and 'how'. We cannot answer 'how' without answering 'why not'. Who will make the effort, who will author the next books that include the 17 UNSDG? 'Quality Education' is about number of schools per capita in a certain population density. Access to school is a functional problem. Somebody has to bring these discussions in the classrooms and there is an immense urgency to bring it into the classrooms, discourses and workshops in academia. Otherwise soon we are going to be isolated. To stay relevant, I believe the architects of the future need to be trained in slightly different ways. Most architects have done housing, but how many have ever asked a child what they want for the town? The child is also a user, and for them it is their entire space.

11. **Presently, Social and Cultural Sustainability is being taught in only 17 institutes in India among the top 100 ranking institutes. Many institutes amongst these 17 have the subject as an elective, the choice of which lies in the availability of a faculty member who specialises in this topic. Apart from the sparse elective subjects, how can social and cultural sustainability as a subject, be included in the architectural education in India? (Probe – upgrade the present curriculum)**

- We do have a subject called sustainability development. However, it does lean towards ecological sustainability, which I also believe is important, by integration of social and cultural aspects.

12. **As per the literature review that has been done, there remains a considerable gap between what the students learn in theory and how much of it they apply in their design. How do we ensure that the topic of social and cultural sustainability will not fall into this gap?**

- It is an age-old conversation. Design studio is a mirror. There is no diplomacy around it, but most of the faculty members are not very successful in it. The question is as well, how much effort the youngster puts into the design, even if the knowledge has been provided to them separately. We can always suggest changes in pedagogy, but there are many invisible forces that are acting at it. They have a very short span of attention, and they want to learn too much in a very short span of time. Learning takes time, it takes an optimum amount of time. It is like cooking. But just as the fast-food industry has made their way through, there are these fast-learning models, ten things to learn, education is moving in a fast forward mode. Sometimes we are helpless, sometimes effortless and sometimes timeless. This job requires constant balance. Today's youth can take faster decisions, but they follow the herd mentality. Maybe changes come when they are trained in the office, but the child must be guided in a matured manner to be self-reflective. The next generation needs to be more proactive in raising questions. Design is all about decision making and those decisions are to be made on the basis of parameters that are available and some speculations. Sometimes I feel the socio-cultural dimension by virtue of appreciation has not received as much appreciation as other tangible aspects. As a consequence, it does not always become a part of the discussions. The generation today needs a new format of learning. If we continue to do what we have been doing in the past, we will continue to get what we have always got, a set of frustrated students.

<u>Decolonisation of Architectural Education in India</u>

13. **The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local**

ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Does the present curriculum need a cleansing in the form of decolonisation? (Probe – architectural identity)

- Decolonisation is a nice word. We need to use a different word as we are unnecessarily always getting into historical context. Today nobody has a colony, and it has been sufficient time since we have been decolonised. It is the mind which wants to be colonised. This entire conversation we are having is alien to India, so how do we decolonise while working in a colonised language? Rather we use the term 'contextualisation'. It is okay to transmit the knowledge in a foreign language, but we must be mindful to the local context. Because of this language we have become irrelevant to the majority of the country, because we are trained in a colonised language, without understand or appreciating the fact that we are colonised already, for which the British cannot be blamed anymore. They left in 1947, and after that it was or job, we could produce written documents in local languages, we did not do that over 70 years. Indian case studies need to be written down. West is an organised form of society. Indian society was also organised in a certain hierarchical format, and it had a certain order to it. The West also believed in the power of documenting everything in a piece of paper, that is why we have so many museums. In contrast, Indian society always believed in the power of tacit knowledge that is passed down in the form of traditions. It is not that knowledge transfer was not happening, in one it was through craft, skill building, oral learning, patriarchal model, stone craft, and generations continued like that. In our society the profession was decided by birth and not by skills. There have been consequences of that. The question is how do we bring those sensibilities to the current times through contextualisation. The West documented, so we have books, but for Indian history, nobody wrote it down. We live in urban bungalows, but still follow the age-old traditions. The current education is not building faith in any of this, it is building faith in economy. Every term arises in a certain context. Decolonisation happens in a space which is completely colonised. The students can speak terminologies related to their profession, that is pseudo education, rather there are illiterate people who practice amazing forms of sustainability and that is true education.

14. **Do you think decolonisation of architectural education will help in promotion of the topic of social and cultural sustainability in terms of the present conditions of India?**

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<u>Role of Council of Architecture</u>

15. **Do you think inclusion of this topic in programs of Council of Architecture Training and Research Centre will help create awareness amongst the professional architects and the academicians of India?**

- It depends on how the Council thinks about it and reflects upon it. Do they want to treat it as a true responsibility or do they want to treat it as a mere disposal of function. Council or any such organisation is actually an institution, and it is highly important for any institution to reflect upon such problems, if they are really concerned about the state of the country and the youth. Lately the council has been regulating the education a lot, but one of the more important reasons why the council was constituted by the parliament in 1982 was to regulate the profession. The problem is if they regulate the education too much and not the profession, where will the children go? Profession is not ready to receive them. The

students today say they are exploited, not paid, the ethics are not followed in the industry. Council has to be a functionally responsive body; they cannot avoid these questions. Council should definitely involve into this, and the responsibility should intensify, it should not be just talk, it should lead through practice. It should not just be a leading body; it should be the responsive body. Only when such things will be proactively connected, good things will be shown direction.

16. **The subjects taught in the bachelor degree program, are currently divided into the following categories: Professional core, Building Services and Applied Engineering, Professional Elective, Skill Enhancement Courses and Professional Ability Enhancement Compulsory Courses. The topic Social and Cultural sustainability can be vaguely found under the category of Professional Elective. Do you think the topic should have a separate category to itself, or be categorised under any other present categories?**

- When we ask such questions there is an assumption that social and cultural sustainability can be packaged in one box, but it also needs to be seen how the percolation is happening. It requires a mature understanding of how all these forms of knowledge can be ingrained into something else, be it design or construction. In one subject, the knowledge is never reflected, it is simply passed as a course, and it gets a half-hearted approach. It should be part of everyday knowledge, 1st year to 5th year. This also means more labour as every teacher needs to be ensuring that the knowledge is coming through. It is not the easier path. Currently we are in a checklist state, and say things are done, but the reality is that form of knowledge separately will not do justice. It is about the brain how it filters and acknowledges it; we cannot administer raw knowledge like this, it will not serve the function.

17. **Is there any additional approach that you would like to add for the promotion of the topic?**

Appendix 7.2: Interview Transcription - HI 2

1. **Please mention your name, designation and the name of the institute you work in.**

- HI2
- Professor and Head at School of Architecture and Design, Manipal University, Jaipur, Rajasthan, 6 years

<u>Social and Cultural Responsibility of an Architect</u>

2. **What should be the social standpoint of a professional architect? (Probe – Social and Cultural responsibility)**

- When we are talking about architecture as a profession, if we look at the market specifically in India, the builders have taken over the architects. There are very few architectural professionals who are going by the theory, going by the style. Most of the time you can see a very monotonous. The builders, and the corporate drawings or standard drawings, they are being adopted. Everything is very standardised, ranging from the modular kitchens prepared by standardised companies. When we are talking about the social responsibilities, first comes the neighbourhood level. I am from Chandigarh and here we talk about the principles of Le Corbusier. There are a lot of things which are being discussed, like the sector market, how it is going to be a hub of social activities. The parks sector parks, all these together form a central spine, like the V4 that we talk about, it is all there to encourage the social interaction, because if we talk about sustainability, this is one of the very important aspects of sustainability, the societal connect. Somehow, in this entire commercialisation and standardisation of the process, that aspect is getting lost.
- The cultural aspect, my PhD thesis was based on the cultural Historic Cities, talking about the cultural impact, over the period of time, how it is changing, how the spatial configuration is changing and how it is impacting the cultural values. There is a direct correlation, because our lifestyles are also changing. We cannot just blame the designers and the builders, because if I go to any religious historic city, even I expect a very modernised infrastructure, which in their terms forms a gap in the cultural aspect.

3. **The United Nations has set up 17 Sustainable Development goals, which include No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Growth and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life below Water, Life On Land, Peace Justice and Strong Institutions, and Partnership for the Goals. Are the 17 UNSDG applicable to the socio-cultural positions of India pertaining to architecture?**

- Yes, absolutely. We architects as professionals are responsible. There are a lot of studies that are conducted. If we talk about when various social aspects like any sort of violence, or theft, or any anti-social aspect of society, there the community is playing a very important role, like the community cohesiveness. So, all these sustainable development goals, they are definitely helping, and form a kind of guidelines for us. For example, which is more related to architects, design of a hostel. There are different ways in which I can go for a hostel design. In old times, there were central courtyard. The rooms were arranged along the courtyard. It was not only solving the climatic issue, it used to be a central means of socialisation. Everybody is connected, and a lot of mutual understanding is formed.

Nowadays, people are going in for conditioned spaces, like the modern hostels, they are doubly loaded. The community spaces are missing. We can see the students are suffering from depression, the working capacity is lowered, the corresponding effects can be seen. Architects are responsible and sustainable guidelines given by the UN, architects must look into how it can be implemented in the building design, in the community, in the neighbourhood, from the minor to the major. From the micro to the macro scale this must be taken up. Architects must talk about what is the psychology of the users, and the society cannot be ignored. Repercussions in the youth can be seen otherwise. Indirectly or directly, there is a relation.

4. **The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas. In accordance to social and cultural sustainability, is there presently a common ground between the area of concern and the area of influence for the architects, pertaining to the present socio-cultural conditions of India?**

- I don't say that there can be a common issue, which is going on with all the classes. During my PG, I did my study on the urban villages of Chandigarh. I started with a very pre-conceived notion of sustainability, and what sustainability means to us, that we are generating energy, we are doing things to save the natural resources. I prepared a very polished framework, with all the theories we usually come across. But when I went to the site, the public opinion surveys, the villagers, the different stake holders, there the issue was totally different. The land acquisition was going on for the development of Chandigarh. The city was expanding. So, people were losing their agricultural land, and that was the prime concern, as they were losing their occupation. They could not relate to the ideas of photovoltaic units of lamps. At that point, this was the priority for them to have, to get a land, for agriculture, they could not adjust themselves with some other absurd jobs. When we look at sustainability, the economy, the society and the environment, all the things are to be catered properly for all the classes of people. Sometimes the environment takes the bigger umbrella, while the economy and the society come under that umbrella. That we have to see, it is a very context-based thing. For which context which formula will be applicable. Which particular parameter should be dominating. Whether the economy should be dominated for the weaker class, for the daily wagers, definitely the economy is the priority. The higher class will be talking about the societal concerns, gatherings, environmental problems. There cannot be a single thing that can go with all the classes. There will always be a difference.

5. **Architects in India are mostly commissioned by the government, or by the private owners of offices, commercial places, residences and condominiums. Hiring architects is considered to be an elite facility. Is the dominant culture of private ownership and gated communities disrupting the social role and responsibilities of the architects?**

- This is one profession which has been taken very much for granted. People do not feel like paying to the architects. They question the role. To some extent, we architects are responsible for that. We are not taking the responsibilities as a whole. We are shedding them off. In the 1990s the structural engineers used to hold a firm, and architects used to work for the structural engineers. After that, one can see the architects became the proprietors, and the engineers were hired. At that tie architects took the onus of preparing

the building plan and everything. Then we started shedding off and sharing the responsibilities, like the landscape architects, interior designers, the building stimulations were to be handled by the mechanical engineers and it was not in our forte, so what happened is, we started ignoring our roles. We started reducing our scope of architectural practice. That has given rise to the development of builders. Now builders, whether they are technically compliant for the construction or not, they hire structural engineers, the architects and they have become the main body. We must revive our profession in totality. The course curriculum needs to be revived we need to think what s going wrong, we have to incorporate the high-tech things, the latest technologies, which are in demand with the people and the clients.

6. **What are your reflections on how the topic of social and cultural sustainability is being dealt with in the curriculums of the global schools of architecture?**

- I am not aware of what is happening. I have seen a few curriculums. In India, this has been taken as a specialisation, not in bachelors, but in masters. We have one elective that is under the umbrella of conservation. There are these social and cultural aspects that can be seen, where the historic regions are being understood, how the transformation and spatial growth of different cities is happening. After the basic education, this topic gets into the specialisation, not in the basic curriculum. The prime aim of undergraduate in architecture is to ready a student so that he can design a building which is functional, climate responsive, addressing the barrier issues. These should all be priority. This can be taken as an elective. Everybody may or may not go for this. We cannot impose, it should be by interest. It can be made into a part of design studio.

<u>Architectural Education in India</u>

7. **What is your opinion of the evolution of architectural curriculum in India, starting from the colonial period to the present date? (Probe – Adequate changes in accordance to change in needs of users)**

- The need of the user is to make it simpler and simpler. That is the need of the hour, in comparison to engineering. Students compare the curriculum to engineering, and they have much more to deal with. A lot of time is invested in drawings. Now is the time to totally revamp the syllabus, which has not been done for some time. There has been changes since our time, but we need total revamp, in terms of duration of course, that is 5 years. We need to rethink, why it can't be four years. In other things, like the construction part, in the syllabus there is building construction and materials, but the project management and the construction management part needs to be a very prominent and dominant part of our curriculum, because now the clients don't have the time. They want to hire one person who is responsible for the design, the corporation settings, corporation clearance, who will see the execution of the building on the site. Keeping all of this in mind, the construction part, the practical site, that cannot be given over to the civil engineers. We need to take that up. Specially after Covid, the overall architectural profession has suffered a lot because of this two-year gap.

8. **The present curriculum, as set by the council of Architecture, does it help in gaining perspective of the social role of a professional architect for a student?**

- The curriculum is not set by COA. They just provide an outline. It is being designed by respective universities. All of it depends from university to university. Chandigarh College of Architecture has one semester dedicated to Theory of Design of Corbusier, because they

understand the planning of Chandigarh. In Manipal Jaipur University, 7th semester, the entire semester is dominated by Urban Studies. We took up Jaipur last year, before that we took up Pushkar, we do the regional studies, what is the regional architecture, try to relate how to enhance. Here there is a small time called Bagru. The Bagru print is internationally known. There is a lot of economy based on that textile. We study that. So, it all depends upon university to university. Council of Architecture has given this kind of flexibility to universities. One should do the regional studies, the culture of regions, the particular regions of area, it is very important to be understood by the students.

9. **Over the time, since the very beginning, has architectural education in India evolved enough to stay at par with the present needs of the users? (Probe - suggested improvements)**

- We need to totally revamp to sustain ourselves.

10. **Is there any scope to accommodate the 17 UNSDG, within the architectural curriculum in India, for better social and cultural sustainability awareness among the students?**

- Yes. That can be done in terms of a core subjects, and elective subjects. There are two broader classifications. A new classification for C2020 has come in India. They are also talking about the importance of the online courses. 40 % can be done online. Maybe because of Covid, earlier as well there were very good courses on Coursera. So maybe we can do that. Maybe through capsule courses, like in MOOC, but that can be incorporated. That is important as well.

11. **Presently, Social and Cultural Sustainability is being taught in only 17 institutes in India among the top 100 ranking institutes. Many institutes amongst these 17 have the subject as an elective, the choice of which lies in the availability of a faculty member who specialises in this topic. Apart from the sparse elective subjects, how can social and cultural sustainability as a subject, be included in the architectural education in India? (Probe – upgrade the present curriculum)**

- If we are talking about the shortage of the human resource, or the availability of the resource person, that is where the importance of MOOC, the online course. We all have upgraded ourselves with audio-visual up gradation, or many have their skills, who learnt through online platforms in the past two years specifically. There is a possibility, lot of professionals who are experts in social and cultural aspects, they can join hands, and they can develop an online tutorial or platform, or workshops can be done, so that everybody across the world is benefitted from that. Sharing of resources is possible.

12. **As per the literature review that has been done, there remains a considerable gap between what the students learn in theory and how much of it they apply in their design. How do we ensure that the topic of social and cultural sustainability will not fall into this gap?**

- There is always a gap. If I take example of architectural thesis, we start with very high ambition. Normally the student start with long list of aim and further what are the objectives of the research, the thesis, but when we come up with them, there is no evaluation criteria. For energy definitely there is a criterion, whether the building is energy efficient or not. Because that is quantifiable. There are soft-wares, there are calculation methods we can quantify, but when we talk about the social and cultural aspects the quantification is not there. If we are able to make a very crisp manual which clearly defines the parameters and indicators and further how we can calculate, and there has to be some

statistical analysis which will give us the figures. Then only we can check whether it is happening or not.

Decolonisation of Architectural Education in India

13. **The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Does the present curriculum need a cleansing in the form of decolonisation? (Probe – architectural identity)**

- This is not the fault of the curriculum. There is a scope. The vernacular ad traditional architecture is very much taught to the students. They are encouraged as well. It is somehow the high-tech and high-rise buildings, they appear more fancy to the students, they are more diverted towards that. Still, I would say, 20% students still stick to the vernacular architecture, if I see the dissertation. Even the topics are about the study of vernacular buildings, they are talking about the means that are relatable to the immediate context and settings. I think the course has nothing to do with it. It is only between the faculty and students. If I take up a studio, and then the studio will go according to my decision. That is the dominance of the professionals that they are taking up, how the teachers are dealing with each particular topic.

14. **Do you think decolonisation of architectural education will help in promotion of the topic of social and cultural sustainability in terms of the present conditions of India?**

- That is already going on. Always there is a wave. The wave of modernisation came and also there was a lot of materials which were new, specifically glass. We can see complete glass buildings in India. Everybody was fascinated, even in the residential designs, people demanded total curtain glass, but now that has gone. The graph has come down. Now the people are appreciating the local materials and the mud structures and the bamboo buildings. It is more about the awareness amongst the clients, because architecture is primarily client driven profession. So, architecture is bound to do what the client wants. It is the awareness among the people that should work up. We should modernise ourselves, as per building services, but we need to take care of the context as well.

Role of Council of Architecture

15. **Do you think inclusion of this topic in programs of Council of Architecture Training and Research Centre will help create awareness amongst the professional architects and the academicians of India?**

- Yes. Any kind of program, which ae happening for the professionals and the local people as well, because they are the clients. So, any kind of a program, which are talking about the benefits of going in for a vernacular, and this pre conceived notion, that traditional and vernacular is an out-dated fashion, that should be removed from the minds. Any types of short-term courses, and faculty development programs, they are helping.

16. **The subjects taught in the bachelor degree program, are currently divided into the following categories: Professional core, Building Services and Applied Engineering, Professional Elective, Skill Enhancement Courses and Professional Ability Enhancement Compulsory Courses. The topic Social and Cultural sustainability can be vaguely found**

under the category of Professional Elective. Do you think the topic should have a separate category to itself, or be categorised under any other present categories?

- I think social and cultural aspect it needs to be integrated, rather than acting as a separate subject. Otherwise, what will happen is like the environmental studies, a separate subject means it should not stand out as a stand-alone subject. In design as well as in theory.

17. **Is there any additional approach that you would like to add for the promotion of the topic?**

Appendix 7.3: Interview Transcription - HI 3

1. **Please mention your name, designation and the name of the institute you work in.**

- HI3, Principal at D. Y. Patil School of Architecture for 11 years

Social and Cultural Responsibility of an Architect

2. **What should be the social standpoint of a professional architect? (Probe – Social and Cultural responsibility)**

- Architecture is a very social kind of profession, so the reality cannot be ignored. Over the period of years, there has been a pit in the education wherein we have not taught the students the humanities, or sociology, which in our time we had in details. That is a loss in the profession and on humanity as such. The social aspect has to be considered as a very important aspect for every architect, even though the architect may be doing a small project, like a house, which is in a very private domain, the house is still located in some place, we never consider that. That is very important, that we need to consider. I don't know in what way we should be teaching this to the students, but in one way that we can get it into the design studios by including it in the site analysis of a project. In the educational institutes, the teacher teaches the students topography, sociology and the climate types, and that's it. It should go beyond that. Students should interview the surrounding people. They can study the economic aspect for the particular region, and so on. They need to start doing this sociological aspect. But for larger projects, it is comparatively easier to do.

3. **The United Nations has set up 17 Sustainable Development goals, which include No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Growth and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life below Water, Life On Land, Peace Justice and Strong Institutions, and Partnership for the Goals. Are the 17 UNSDG applicable to the socio-cultural positions of India pertaining to architecture?**

- All 17 are not directly related to architecture per se. But they are related to the actions of an architect. For example, the sustainability, the climate responsiveness, the good health, and well-being of the end user, these are directly the responsibility of the architect and they do it only for the smaller projects. If for every project, the architect starts investigating, for e.g., what are the local technologies that are available, because the people, they build houses everywhere. In colleges and schools, we teach them only certain materials, so the student s goes out in the world, knowing only about 3 or 4 technologies, by which they can build a house. If the architects start exploring what re the local technologies, who are the people who are skilled in them, and they employ those local people. In a very round-about way, they are affecting the eradication of poverty, because they are providing employment to those people in their own locality. They are not going to migrate somewhere else; they will be able to put their children in schools. Architects should take their roles seriously, because as architects we are the change makers and we should be very responsible and practice in very practical and sustainable ways. We should be able to help people in achieving these goals. The goals are not the responsibility of any one person. It is the collective responsibility of the whole population. An architect is a part of the population,

and one of the professions that is actually causing all the loses for the climate and society. So, we must be more careful.

4. **The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas. In accordance to social and cultural sustainability, is there presently a common ground between the area of concern and the area of influence for the architects, pertaining to the present socio-cultural conditions of India?**

- As an architect, we at the end of the day, are dealing with a human being, or the end user. We must be always concerned about that. Most of the time, the architects are doing their practice in a very private domain, so they don't go beyond that particular group to which they are catering to. If they look at the larger audience, or context, then they can find a common ground. So here, they can start with a single local technology or a single material. For creating a site of a house or a building in such a way, that it has a positive influence on the environment, it does not butt out in the environment, just to make a statement. But if an architect thinks that they will create something accessible, as in not only barrier free architecture, accessible to all the sections of the society, there is a cross section of society everywhere. The moment one comes out of their house, they are in their neighbourhood, which will have a diverse population, especially in India. Just outside the gated community, there is a slum, just outside a house, there are squatters or tapris, which are very temporary structures, made up of sheets and sticks. A variety of people live there, have their businesses, and the people from the gated communities are collaborating with them. So, we must always involve accessibility, in terms of a shared space. Whatever spaces we are creating, which are in the public domain, like footpaths, small nooks, or corners, or junctions of roads. In India, road junctions are very popular place, people like to hang out in such space, there are tea shops, or cobblers, or people selling vegetables, so it is a very happening spot. We must be mindful of these shared spaces. As an architect we need to give it due importance. Similarly, are we making the shared spaces safe? If we notice, the shared spaces are mostly used by men, and women will only go there for utilities. Women mostly don't hang out in such spaces, unless they are in large groups. Not only about women, now we are having so many marginalised parts of the society or people who are discriminated against, they are scared to use these spaces. We need to make a safe space that is a common area between the area of influence and area of concern. Another way is to create non-religious spaces. In India, either spaces are taken up by a small temple, or even a West facing wall that represents a praying wall of the mosque. These are religious symbols, which are not be seen today. Today people are becoming aggressive, these religious spaces cannot be shared, and architects should advocate non-religious spaces. There are enough designated structures for that purpose. Architects are not advocating community spaces, where people can simply interact. If we go into the environmental aspect. If we are promoting and planting native vegetation, found in the region. In India, in the tropical climate zones, we need shade giving trees. They are being uprooted, replaced by ornamental trees, to adorn the ambience or the footpaths, but they are preventing people from using these spaces, coming into the open and interacting. These are the cultural needs and spaces of India. For e.g. – a big banyan tree or peepul tree, the most common symbol of a community or social space in India. We need to get that back, and that

starts with the planting of a shade giving tree. It is a small step, but it is very important. These are small indicators, that architects can promote, which will be the common ground between the area of interest and the area of influence.

5. **Architects in India are mostly commissioned by the government, or by the private owners of offices, commercial places, residences and condominiums. Hiring architects is considered to be an elite facility. Is the dominant culture of private ownership and gated communities disrupting the social role and responsibilities of the architects?**

- If the architects are working on an urban design project or a town planning project, planning a neighbourhood, or large gated communities, the social aspect is always ignored. Specially in the gated communities, as it is a very exclusive kind of a thing, people think they can do anything and get away with it, because they are going to be in a gated community, they have very little connect with the surrounding areas. There are large number of people in the large project, so the whole concept of social responsibility is completely lost. That needs to be regained.

  It is happening in India, because everybody is working in a silo. We need to have a proper collaboration, not only amongst the architects. When a gated community is proposed, it is not necessarily proposed as a part of a development plan by the municipal authorities. It is completely a private enterprise. The builders or promoters come together, and are allowed by the municipal corporation, marked as a residential zone, but that is not how it is done. There is no proper study behind it. Or if there is a study, it is a very old one, because the implementation time is humungous, so by the time the corporation approves of the plan and the project comes into the public domain, the population has increased 3-4 times. So, it is no more applicable. So now the public enterprising people, they solve the problem in their own way, but obviously that is not the way to deal with the problem, it just becomes a commercial issue. The commercial angle then starts kicking the larger role. All the decisions are taken only through the commercial angle. Here the architect is supposed to play a role, they don't do it, because it is not their sole responsibility any more. Earlier it was the architect who had the project, but now they are only the project managers. The heads of the project now belong from the economic background, or engineers. Basically, they are non-professionals. The architects are the professionals who are being taught to handle such situations in an ethical manner, with a registration number, which is liable to be taken away if they don't perform properly. Now the project's management has gone out of the realm of the architect, and they are not in a position to take these decisions or convince the builders that such decisions are in their interest. This loss is happening in India at a very rapid scale. Cities are growing in all directions, taking up the agricultural lands and turning them into residential regions, and this happens before the corporation can take a proper decision. There are no more social or community spaces anymore because of this. Somewhere the architects are responsible for this for not taking a stand, for not delivering according to their roles properly or for not convincing the authorities or the builders or the clients that this is in the best interest of everyone. This needs to be addressed.

6. **What are your reflections on how the topic of social and cultural sustainability is being dealt with in the curriculums of the global schools of architecture?**

- Not much aware. Schools in the UK have 4 main agendas, as made by RIBA. One of them is climate, and that is being addressed in schools. In India, this topic is nowhere there. The word 'sustainability' is used a lot by everyone, but nobody really understands what it is and

how to put it in the curriculum. The curriculum is all about passing, and there are themes in the studios. If a theme is sustainability, and let the students deal with it. They use the word in the agenda, and get a few experts to talk to the students about it. But at the end of the day, the core teachers in the studio, they do not have the sustainable mind set. They have no idea what it is, what are the different ways in which they can allow the students to practice sustainability, and it fails over there. It is also not a compulsory part of the curriculum.

Architectural Education in India

7. **What is your opinion of the evolution of architectural curriculum in India, starting from the colonial period to the present date? (Probe – Adequate changes in accordance to change in needs of users)**

- Talking about colonial period, architecture as a formal education in India was very scattered. India had the oldest universities in the world. Somewhere in between the colonial period, all the traditional universities, and the traditional methods of learning were destroyed. We started adopting the Western ways of learning architecture. The oldest architecture college in India is MSU, in Baroda. They were the first ones to begin a formal training of architects in the 1800s. Then the British came and started certain institutes which were primarily for drafting. They had their own architects, and they needed people to create the drawings, and help them. The formal education of architects started only about 100 years ago. To this day, we are still very much focussed on drafting. There are still debates going on about which tools to teach student for drafting. It has not yet evolved so much. The students are still being primarily taught about the western civilisations. In spite of having such a rich history of civilisation, we don't talk about it. We start with Egyptian, Greek, and Roman and then we come into Indian architecture. The evolution has not happened as it should have. IT is not only about what is the need today. People today are talking about artificial intelligence and machine learning, which should be a part of architecture, but have we learnt something in-between, or are we just jumping from tools to tools. The evolution of knowledge has not happened. The present scenario is about getting buildings very quickly. That is all about manufacturing. What is the role of the architects in there? We don't tell students about what role they play. We just accept it as not being our domain. Some of the books that the students refer to, are 100 years old, that are not even relevant. Books about building technology like Mackay, but it has no role to play in Indian construction Industry? The materials like wood, is not used extensively except in particular parts of India, like the Himalayas, but students all over are learning about it. In Himalayas, it is used ethically, and also because it helps in earth quake resistance, but that is left out. The overall syllabus should be more focussed on the local and then go to global.

8. **The present curriculum, as set by the council of Architecture, does it help in gaining perspective of the social role of a professional architect for a student?**

- The C.O.A made a general statement that schools should adopt these goals into the curriculum, but how, or at what stage, this has been left to the schools to decide. The schools are not accountable. The C.O.A doesn't check if it is covered or not, so nobody is accountable. There may be individuals keen to do it, but they are not getting such faculty members, who have the similar view points, or they are not even trained on these lines. That is a big loss, due to which any kind of sustainability cannot be implemented. Climatic sustainability is not an isolated topic. It is completely related to the social and cultural sustainability, heritage of the particular place. These are not discussed. Culture is only

covered in history. History is not necessarily culture. History and humanities together, forms culture. Sociology is a completely different field, which is never covered in an architectural studio. Sociology is taught by specialised teachers, only in one semester, and due to loss of resources, it cannot be continuously offered to students. It needs to be made into a core subject. The problem thus is not compulsory and not at all covered in the curriculum, though it is important that it is done.

- The new outline has come out in 2020. It is very much going in that direction. Since it has just been implemented, we cannot yet gauge what is the effect on the students. But they are going in for a lot of intra-disciplinary subjects, which are very useful for the students. They are talking about not only core subject and elective, but also aligned subjects, with various electives, which may be related to architecture, while some are not. They are trying to have a holistic development of the student. The latest 2020 standard of C.O.A. is addressing the problems, but we will only know the results in another 5-10 years, when the students studying this have graduated and started practicing. It is the first step towards addressing social responsibility for an architect.

9. **Over the time, since the very beginning, has architectural education in India evolved enough to stay at par with the present needs of the users? (Probe - suggested improvements)**

- Definitely. Improvements are definitely needed. The improvements will not only be by suggesting use of more technology. That should definitely be there, but there are also various ways in which they can be used. The need of the hour now as the architectural practice is changing rapidly. It is becoming very difficult for the smaller practices to survive. They will never be extinct, they are called boutique practices, so they have a small reach of their own. But the majority of the architects who are going to come into the practice, they will not be able to survive. They need to have a larger reach, and so they need to collaborate, not only with other architects, but with other disciplines. They have to go beyond their traditional design education. There are many other things that can be done. For e.g. – architects themselves going into construction. They start working on turnkey projects. This is diversification in the realm of architecture. They go into manufacturing as well. Many go into furniture manufacturing; many go into material manufacturing. There are many architects who are showing an interest, creating their own materials, and thus diversifying the profession. The students need to be equipped to think in this fashion. Many architects are going into post construction consultancy. Even if the project is done, the project is not over, there is still maintenance, re designing, and so many other things that can be done to the building. Over the time everything changes in the building, and this is a scope for the architects to have a job for many continued years. The students entering the field has to cone with this knowledge. They will not only learn designing, they need to learn business, technology, financial skills and so many other skills. That is not happening in the curriculum. We are saying that this can be done, but not making an active part of it. We still stick 90% to core architecture, and only 10% pay heed to these. If the percentage can be increased, maybe that could be helpful for the students.

10. **Is there any scope to accommodate the 17 UNSDG, within the architectural curriculum in India, for better social and cultural sustainability awareness among the students?**

- Definitely there is a great scope. If we reduce the core subjects from 90% to 75%, we may be able to include all of the other things. Many schools are taking up as goals. They identify goals closer to the scope of architects, and they try to achieve them in the curriculum. Such

practices are happening but at a very smaller scale. The tempo is not there, something very drastic needs to be done to include these in the scope of the curriculum of architecture.

11. **Presently, Social and Cultural Sustainability is being taught in only 17 institutes in India among the top 100 ranking institutes. Many institutes amongst these 17 have the subject as an elective, the choice of which lies in the availability of a faculty member who specialises in this topic. Apart from the sparse elective subjects, how can social and cultural sustainability as a subject, be included in the architectural education in India? (Probe – upgrade the present curriculum)**

- Definitely an upgrade is needed. The college or the institute, they need to actively adopt this as a part of the curriculum. It is very simple to integrate into the curriculum, it is not at all difficult. They can even make it into a compulsory subject. It could be offered as a compulsory elective, that students can take at any point of time in the 5 years. But the elective may give them the theory about it, the importance of the subject and so on. But if it is brought into the design studio, only then they will be able to understand it applicably. For e.g. – very institute has the study tours, where students do study the social aspects, but when the students are getting a design assignment, as an output of the study tour, it rarely talks about the social responsibility. For studying vernacular architecture, students are shown houses that are built using the local materials and in the traditional styles in the local area. The students don't end up studying the streetscape, the community spaces that they are looking at, and what do they do in the different parts of the day. If the study tours are extended to 7 days, then they will be able to bring it into the design studio. They can also apply their learning in their actual design problems. Then only we can get it into the minds of the students. Everything can be taught to the students in the class, but how much the students learn is the question. The idea is to make them learn these topics, and they will only learn them if it is done in an application base, or if they actually use the knowledge somewhere.

12. **As per the literature review that has been done, there remains a considerable gap between what the students learn in theory and how much of it they apply in their design. How do we ensure that the topic of social and cultural sustainability will not fall into this gap?**

- To reduce this gap, first the teachers need to be trained on this topic. (Explained in q.15)

<u>Decolonisation of Architectural Education in India</u>

13. **The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Does the present curriculum need a cleansing in the form of decolonisation? (Probe – architectural identity)**

- Absolutely. I am a great advocate for decolonisation. It is a good terminology as well. Even in the subject of history and humanity, the Indian and local scenario is needed. The students are from this region, we don't have any foreign students. Students belong from general regions of north or south India, and they have been in the local culture. We have a strong descent of architecture. In North or South India, we still find people have their lives and habits built in a space, in the house they stay in. We need to teach that to the students. For e.g. – The students of first year were taken to a village of ten families, a tiny village. When

the students talked to the people of those families, because they were supposed to provide design solution for individual families. So, interviews were taken. The people never used the words like a living room or drawing room or kitchen. It is us, who introduce such words and space segregations to their minds. We have different names. Indian houses have a semi-open space, a veranda, where the house is entered through, everywhere in India. That is not talked about. It is not specifically vernacular architecture; it is our space culture. We all have grown up with that. However, as students we look at living room, dining room, etc., they are foreign concepts. Indian way of living is very different. These things need to let go of. The builders have also taken up this format for selling property. They don't provide two rooms, they sell BHKs. Students thus study standard dimensions for living and cooking, and the choice is taken away from the client or user, if they may need a larger space for kitchen or if they would choose to have any other space personally enlarged, rather than sticking to the standardised norms. The traditional knowledge must be needed for a quick comparison, so that whatever the students are learning, they can understand which part is needed, or should be incorporated. The students must be taught to appreciate what they have, and that it is good. Only then they will learn to appreciate other's traditions.

14. **Do you think decolonisation of architectural education will help in promotion of the topic of social and cultural sustainability in terms of the present conditions of India?**

- Definitely it will help. The reason is the term globalisation came up in turn of the century. People were very enamoured by the term, and by the results of globalisation. But people who were born in the last century, they have a better appreciation of globalisation. People who were born in this century, they don't know what was local, or their own identity. Thy don't know what is happening in their surroundings. They were directly shown what was happening in the West. We don't even talk about other Asian countries, and even if discussed, they are spoken of in a derogatory manner. However, the Chinese civilisation and the Indian civilisation have been contemporaries in the old period of times. That is not taught. What are the similarities between the two civilisations, and what are the effects of these civilisations upon others, that is not discussed. The richness of Japanese civilisation has been reduced to landscaping. Decolonisation should be worked upon in entire Asian region. The culture is similar, in spite of having different climatic regions, so the evolution of the similarities must be studied. As an architect, the students must know their own positions before they go out and face the world and be globalised. That will make their journey easier, if they know their identity.

<u>Role of Council of Architecture</u>

15. **Do you think inclusion of this topic in programs of Council of Architecture Training and Research Centre will help create awareness amongst the professional architects and the academicians of India?**

- We forget to train the teachers, and it is assumed that they are going to evolve on their own, and whatever training is being offered, are by C.O.A throughout India. But they do not specify. They do not have a set model or categories, in which the teachers need to upgrade their knowledge. They just allow any institute to conduct the training program. At the end they just verify what are the contents but there is no set structure, that in a year the teacher needs to upgrade their knowledge in a chosen set of areas. If it is done in a focused manner, year wise training in only social responsibility, or in cultural sustainability, that way three-four goals can be set for a year, and everybody will be able to upgrade their

knowledge. A set number of teachers are sent out from each institute and then boxes are checked. What they actually learn there is never checked. The teachers need to be trained in a focussed manner in different levels to ensure that the students are being trained in a proper manner. Then that can be reflected back to the students in the studios.

- The college pays for the faculty to attend these workshops. So, a list is prepared for every year, and thus, the same faculty members are not repeated for the different workshops. The council keeps a count as well. Once the total number of faculty is covered, even the Council says it is covered. So, for every extra faculty, extra amount is cost. So that is deterred. The fees are humungous, and thus, the professional architects hardly ever visit these workshops. If the fees are reduced, a greater number of people could participate in these workshops and be trained.

16. **The subjects taught in the bachelor degree program, are currently divided into the following categories: Professional core, Building Services and Applied Engineering, Professional Elective, Skill Enhancement Courses and Professional Ability Enhancement Compulsory Courses. The topic Social and Cultural sustainability can be vaguely found under the category of Professional Elective. Do you think the topic should have a separate category to itself, or be categorised under any other present categories?**

- Professional elective is fine, but it does not do much justice, as the number of topics that can be taken under the professional electives are numerous and the college may not choose the needed topic. In this case, we can take it under the professional core subject, or even under professional ability enhancement compulsory subject. That also should work. What will work the most is to put it under the free elective or the open elective category. If it is under that category, the college tends to look at people who have specialisation on the topic and experts, and they can be employed. That is more important for the students. If it is put under any other category, then the architects will only teach them, and the teachers themselves will not know much about the topic unless they specialise in it. But then it will only add on to the theory subject and it will lose its applicability.

17. **Is there any additional approach that you would like to add for the promotion of the topic?**

- A special category will be safer to get this to the mind of the students, but practically it is not possible as students are already having so many subjects to study. The architectural design has got a lot of aspects under the curriculum. This topic should be included in those categories. So, every year the students can tend to it every year in different semesters in different studios. The scope of this subject thus goes on increasing, and it becomes a direct application to the design.

Appendix 7.4: Interview Transcription - HI 4

1. **Please mention your name, designation and the name of the institute you work in.**

- HI- 4, Professor, Vellore Institute of Technology, Tamil Nadu

Social and Cultural Responsibility of an Architect

2. **What should be the social standpoint of a professional architect? (Probe – Social and Cultural responsibility)**

- It is a very broad question; we have to summarise it quite a lot. The social responsibility of an architect is the ultimate responsibility. To provide the service of an architect professionally that is the social responsibility. But that does not really tell you very much, because then you would be agreeing with the profession as it is today, but it is failing. So, there must be a problem elsewhere. The idea of being a professional providing a professional architectural service is not working correctly because what architects are doing is not really architecture. On one hand they say they will provide architecture and then they do something else. A lot of architects have the freedom to do the right things and they do, but most of them, including the big firms, don't. There is a big confusion that undermines the architects to properly serve the society, to execute their responsibility. It is only the freedom that individual architects have in their own work, but most of them can't as they are underpaid and they have mandates and they are so confused what the people they are serving expects them to do.

3. **The United Nations has set up 17 Sustainable Development goals, which include No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Growth and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life below Water, Life On Land, Peace Justice and Strong Institutions, and Partnership for the Goals. Are the 17 UNSDG applicable to the socio-cultural positions of India pertaining to architecture?**

- I have all the paraphernalia, as we are always promoting them to the students. The problem with those is that most people see them as something to do, but they are actually outcomes, and they do not tell you much about how it is actually done. So, you again face the same problem which has to be addressed architecturally, what is the architectural responsibility and what can architects do about these things, and how can they do it? There is too much thinking which is already obvious. It is a nice package, so a lot of people misinterpret and does not understand the proper responsibility. Everywhere, and in India, these are very common things which all of us try to support directly or indirectly. They are all necessary. They can be done as general idea, but it is structured to be measurable so that people can attribute money and goals to it, but if it is studied, it can be seen that there is not much that required to be addressed, but if done fully, one can get there somehow.

4. **The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas. In accordance to social and cultural sustainability, is there presently a common ground between the area of concern and the area of influence for the architects, pertaining to the present socio-cultural conditions of India?**

- Yes, there are plenty of linkages between the two. The dynamics of working particularly in India is that the Supreme Court has said that the architects are the only one who can call themselves architects if they have the degree but there is no limit on anyone doing any architecture. One does not need to be a professional to do a design or building. This has dropped down the bottom line of architectural profession in India, so architecture is useless on a social and political level. But if that wasn't the case, if architects didn't make that huge blunder in legislation, and legally they were the only ones who could practice architecture, poverty would still be a huge part of Indian economy. Every thesis we have students doing slum rehabilitation. There are two sides to that. The first is we do not want to pay more money to the service providers who are living in the slums, it is the payment that people give that makes them slums, and not the fact that people don't have money. The second thing is when architects rehabilitate them, we just create some boxes to store the people in a land, which can be later made into a mall. In both cases it is the slum people who are being held in their position. When a person loses their slum house, at least they have the ground below their feet and the sky above their heads, rather than a 15-20 storey slum rehabilitation project where they have lost control over their environment completely. So, they end up still being slum dwellers, but now it is even worse, they end up in a category which can hardly be escaped. Whereas in the slum they can still have their own house, whereas even wealthy people in India can't have their own house, they have to rent. Slum people have some autonomy and power which architects don't understand, and the government don't understand that the people still have some trace of humanity in them when they are living in the slum, and that they would rather smell the stink and live in one room with no light than be put into a slum prison. Architects need to understand these sorts of things. They have to do what some companies are doing in North America; they will have to address far into the future when the project is being assigned and this is where the architects are failing. They are not trained to do that in India and they are not close to do that sort of thing. The schools just let the children do these beautiful projects but they do not understand the social and community aspect. So that has to be expanded, and then the architects can have more effect. But that is after the architects know how to become architects in India, because anybody can do architecture. There are no requirements. There is only a requirement to call yourself an architect. The engineers and big companies all know this. For some reason COA has not been able to go and correct this blunder, which everybody is exploiting. Architects are not even making enough money to do their job well. The situation is pretty dire. The fee structure, in villages is reduced to 20%. One cannot work in such situations.

5. **Architects in India are mostly commissioned by the government, or by the private owners of offices, commercial places, residences and condominiums. Hiring architects is considered to be an elite facility. Is the dominant culture of private ownership and gated communities disrupting the social role and responsibilities of the architects?**

- There is an architect inn Gurgaon, who is doing being developments, and huge projects, without a wall. They are open. The problem is the architects have to move to the front end of the project and decide what the project actually is rather than following what people who are uneducated are saying. We cannot let those people who are not architects tell us what to do, to build power structures which contradict architecture. When architects do those projects, they actually harm architecture, but not terribly; because inside the wall they can actually promote wellbeing. Everything good today is inside the wall because

people are so selfish, they do not want to pay taxes to build the roads and the parks. They only save for their little compound. It is not the architect's fault, just that they do not go the front of the project and tell the developers that they do not want to do this. The question is whether the prison inside or outside, as there are barbed wires on top of these walls. It looks like a prison wall, not like a residential settlement. If architects do not have a stand in the country, they practically do not exist. If the architects can produce quality work even inside these walls, they are recognised for it, it can lead to people offering them more work on public domains as well. People can respond to it. In village architects get paid in bundles of wheat and millets, because they do not have money, and that does not run the business. There is a conflict that architects are forced to make more expensive buildings so that they can get paid more money. That is another reason why they cannot work I n a village.

6. **What are your reflections on how the topic of social and cultural sustainability is being dealt with in the curriculums of the global schools of architecture?**

- It is moving. At a conference in Chicago, half the discussion was about equity. Architects are not sanctioned professionally to do architecture. It is almost about buildings and technology and production that are being promoted are entirely unsustainable right now. My opinion is that the profession will fail and be replaced by another group that comes in and takes over, because architecture will always exist and its legislation will be changed from within. But I don't see it surviving more than another 10 years before it collapses. Right now, it is already collapsed in India, and the only thing that keeps it going is the huge amount of money processing, architects are not very poor but they are always wet because they are swimming in a river of money. They may get only $10000, but the buildings are worth millions. I tis the duty of the architect is that they can do their work and push towards more equity.

<u>Architectural Education in India</u>

7. **What is your opinion of the evolution of architectural curriculum in India, starting from the colonial period to the present date? (Probe – Adequate changes in accordance to change in needs of users)**

- There is much less of harassing of students, rapping knuckles and yelling and tearing pictures down as it used to happen before, so the daily experience of the students is influenced by the Western studios. The way theory classes are run are not very university like, they still have a long way to go. In terms of the curriculum, it is fully western. Students are not being taught Indian heritage or being taught in an Indian way, or to respect their own heritage. In my school I am the only one who is advocating for Indian knowledge systems and ideals. People know about these in their personal lives, which are the personal cultures, but when in classroom or studio people do not know it. It hasn't evolved and it is a big struggle. It is very present but not being dealt with. There are various schools like IIT Kharagpur, that are coming up in a very targeted way, but the basic knowledge of how to teach them is not present everywhere. A school in Pune is making their students design a temple, but one cannot bring in the traditional knowledge system and culture into the studio by designing a Hindu temple, it only limits them drastically. They have not progressed much.

8. **The present curriculum, as set by the council of Architecture, does it help in gaining perspective of the social role of a professional architect for a student?**

- When Habib Khan started his leadership, there was a meeting where he said people are asking him to update and upgrade the curriculum, so that people can do more. He said, curriculum is the minimum. They actually have the freedom to do as much as they like, as long as the minimum is met, they can go beyond it, and they should. But most people take that minimum as the limit of what they are supposed to do. He said that really frustrates him. COA could bring out a standard and provide a minimum, but he said architects generally want that freedom. So given that it is basically a Western idea, and whatever value they have for that, the possibility of making it socially equitable is totally in the hands of the faculty and they have no idea of what they are doing in general. This is not only in India, this is in the West as well, where technical people, who know how to make models do not know about the social aspects. In a school if community aspects are mentioned the response is that they want to make a cool building instead of that. It is hard to bring into the mind of people. Another problem is that in India the students are extraordinarily young. Basically, they go through their four years of education from home, with no experience of the world. They do not even work, how you teach students who know nothing about the world. They are dependent on their parents, and it depends on what their parents do. The other half comes from villages, and they have no idea what they are up and against.

9. Over the time, since the very beginning, has architectural education in India evolved enough to stay at par with the present needs of the users? (Probe - suggested improvements)

- If the architects are given enough freedom to work, they are entirely capable of upping their game everywhere. There are enough good architects, even if there were 10% of those who graduate or are working, they could do that. The problem is that even as it is, they are not being able to do that, given the problems in economy and people's expectations, the architects are not able to do what they are supposed to do. Some of them understand the situation and becomes known for their work, like Kanvinde, and they form a minority. They do the good things because they are given a chance. But the vast majority are just running the hamster wheel. They cannot do anything.

10. Is there any scope to accommodate the 17 UNSDG, within the architectural curriculum in India, for better social and cultural sustainability awareness among the students?

- I think it is there. It is a very bureaucratic idea, the way the UN did it, it is not very lively. It works, and has some nice diagrams, but then when one gets into it and starts reading, all of the stuff written in each section, it goes very deep with a tremendous amount of data about each goal, one thinks that most the things are just ideas. I don't think it is central to architecture, but I think it can be brought into the curriculum, and it is being done now. It is just a programmatic reminder from another side, of what architecture originally was taught to do. It shouldn't be central to architectural practice, because the goals are not designed for architecture, it comes in from the outside, as a requirement from the outside, and it is from the programmatic side not the pragmatic side.

11. Presently, Social and Cultural Sustainability is being taught in only 17 institutes in India among the top 100 ranking institutes. Many institutes amongst these 17 have the subject as an elective, the choice of which lies in the availability of a faculty member who specialises in this topic. Apart from the sparse elective subjects, how can social and cultural sustainability as a subject, be included in the architectural education in India? (Probe – upgrade the present curriculum)

- The idea of creating social justice through the climate change that is coming is bizarre. People are basically teaching students how to build a building how our grandfathers used to

do it, and then there is a special course about sustainability. It is a question why the students are not taught about net zero carbon buildings as a rule. There are a lot of people who believe that the old way of doing things is the basics and then they add on the new stuff. This has to be got rid of. If architectural studio is taught from the basics of social justice and equity, then what is lost in the teaching, they actually have to teach the same things, just with the element in them. It is not a matter of integration; it is a matter of complete replacement of the system as it was. 21 of 100 schools have literally defined systems to talk about this. So, in studios which are typical, like in 3rd semester students do rural architecture, based on COA, most of the students treat that as social equity and justice in the studio. They go into a village and see people who do not have good buildings or systems, but they talk about how they would like to live there. For every interface that I have taught in the villages, the students think it is highly valuable, they do not say the cities are healthy, or it is good for them, but they have to live there to get access to all the modern amenities, or listen to their grandmothers talking about things that are irrelevant. So, if social equity and justice is introduced in to the lessons, the students will have a purpose to go and measure that in the rural settings. They go in with an idea of what they are going to do and what they are trying to achieve. It is really up to the professors to incorporate this, because I would not do a studio without this, barring that there is a theory class explicitly about equity and justice. It is up to the directors to say they want it in their curriculum, and the teachers should have it in their attitude. It is not being done very much, as people are just waking up to it as a thing. Climate is a thing, and the relation between climate and equity is also very vague for most people, they do not understand it. There is a confusion here between being an architect and what the architecture is supposed to reflect or work for. Architecture is not social justice; it supports social justice and there should be a programme that helps it be more than just beautiful buildings or has to attract different people. Social issues are not definitive for architecture, architecture is for people and where they are and what they need.

12. **As per the literature review that has been done, there remains a considerable gap between what the students learn in theory and how much of it they apply in their design. How do we ensure that the topic of social and cultural sustainability will not fall into this gap?**

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<u>Decolonisation of Architectural Education in India</u>

13. **The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Does the present curriculum need a cleansing in the form of decolonisation? (Probe – architectural identity)**

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14. **Do you think decolonisation of architectural education will help in promotion of the topic of social and cultural sustainability in terms of the present conditions of India?**

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<u>Role of Council of Architecture</u>

15. **Do you think inclusion of this topic in programs of Council of Architecture Training and Research Centre will help create awareness amongst the professional architects and the academicians of India?**

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16. **The subjects taught in the bachelor degree program, are currently divided into the following categories: Professional core, Building Services and Applied Engineering, Professional Elective, Skill Enhancement Courses and Professional Ability Enhancement Compulsory Courses. The topic Social and Cultural sustainability can be vaguely found under the category of Professional Elective. Do you think the topic should have a separate category to itself, or be categorised under any other present categories?**

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17. **Is there any additional approach that you would like to add for the promotion of the topic?**

Appendix 7.5: Interview Transcription - HI 5

1. **Please mention your name, designation and the name of the institute you work in**.

- HI - 5, Associate Professor, IIT Kharagpur

Social and Cultural Responsibility of an Architect

2. **What should be the social standpoint of a professional architect? (Probe – Social and Cultural responsibility)**

- Professional architect is supposed to be social. The social standpoint has to be in terms of their active membership and participation in a number of non-governmental organisation, community-based organisation, various groups of designers, various materials and resources, in other words, they should be a very socially aware of the variety. That's a standpoint that should be very important. Should not be a stand-alone person. He must realise there is always so much to learn and so much to know.

3. **The United Nations has set up 17 Sustainable Development goals, which include No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Growth and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life below Water, Life On Land, Peace Justice and Strong Institutions, and Partnership for the Goals. Are the 17 UNSDG applicable to the socio-cultural positions of India pertaining to architecture?**

- Broadly they are. The SDG is a very thought attempt of the UN, and the UN comprises of people all over the world. But India needs to have its own framework of development. By Sustainable Development, India should be more particular according to the climatic zones, for e.g., regionally available materials and the heterogeneity and diversity, the SDG should be more micro than macro. India had a history of 'mahajanapadas', at that point of time, contemporary to Buddha, India had the idea of regional agglomerations and confederations and climatic zones. That knowledge needs to be revived and SDG goals need to be framed in accordance. Spatial ideas need to be incorporated in the theories.

4. **The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas. In accordance to social and cultural sustainability, is there presently a common ground between the area of concern and the area of influence for the architects, pertaining to the present socio-cultural conditions of India?**

- Yes. Architects need to update and upgrade beyond their limited borders of knowledge. If we look at housing, I have guided through 2-3 housing PhDs, so I can say, Housing is one area which is diversified. The old concept of rich, middle income and poor are gone. There are 7-8 levels of deprived, poor, higher income, upper income, etc. There are works which are done by the World Council of Applied Econometrics. Many architects are not familiar with these. These are the social demands that peaks on the other side to which the architects are supplying. So, what has to be done is, in every domain there are such granular nitty-gritties and we have to know these grains and the community differences. An overall approach is not suitable. Otherwise, many projects, they would physically look nice, but socially and culturally they finally fail. Many slum-improvements project. They are

rehabilitated to a new housing project and in next 5 years, they are sold off to another generation, and it becomes a vicious cycle through mediums and property mafias. This is the case in all Indian cities. This happens because the architects, designers and promoters are not in commensuration with the change that is going on there. They don't know what is the difference between a real have not and the dummy have not. The aspirers are becoming the middle class. We must know these income groups and the expenditure elasticity. Architects need to be very strong in economics and the ranges of affordability. That is not taught in the classes, and even that is the social responsibility of an architect.

5. **Architects in India are mostly commissioned by the government, or by the private owners of offices, commercial places, residences and condominiums. Hiring architects is considered to be an elite facility. Is the dominant culture of private ownership and gated communities disrupting the social role and responsibilities of the architects?**

- It is the biggest conflict. Normally the government is the responsible person, but even if we go to the richest country in the world, we can still see that the housing is done by the federal government, and the rest are private initiatives. The private initiatives in the US till date are very responsible. Now the situations are changing with the concept of sub urban housing. But then that is only affordable for the rich people. The rich people are going outside. In cities like Detroit, that are post-industrial cities, this kind of arrangement is made. This kind of spatial understandings are very important. Here you fall at the hands of private developers. Architects need to develop a good consortium responsible ethically. There are a lot of good housing consortiums coming up. They have to look at the brightest side, and good things are slowly emerging. Maybe in another 10-15 years, India will slowly emerge into one architectural design market.

6. **What are your reflections on how the topic of social and cultural sustainability is being dealt with in the curriculums of the global schools of architecture?**

- Now it is a big thing, almost in any school, like Cornell, or University of Kyoto, Japan, or even in your university. Kyoto protocol is nothing but social and cultural sustainability in the late 90s. That has so much bearing with architectural profession. Where we plant a tree, how much we plant, where we cannot build but maintain the forest, these are all ecological questions. If an architect is not strong in that, if they are not a good designer, socially, environmentally and most importantly ecologically, then what is the use. Who is an architect? An architect at the end of the day is an ecosystem's designer. This kind of paradigm extraction is the need of the day. You are not just designing your house, but you are designing a house with respect to the houses all round you. That is called an ecosystem. These have not been taught in our schools over all this time, but it is important. How much water is coming to my house with respect to the proportion of total water supply, does an architect know that? They are supposed to know that. Accordingly, they are supposed to design the water supply line of the house. It all depends on who the architect is. What responsibility and sensibility they have.

<u>Architectural Education in India</u>

7. **What is your opinion of the evolution of architectural curriculum in India, starting from the colonial period to the present date? (Probe – Adequate changes in accordance to change in needs of users)**

- Roughly Indian architectural education has gone through four phases. Pre-colonial phase, there was a lot of disharmony and disorganisation because of the Islamic and Indo-Islamic

phase, there was good, like school of Din-e-Elahi by till about Akbar, and there were also bad. With the British coming in, we had the colonial phase, especially from 1845 onwards till about 1945, we had the colonial period. Then there was the pre-first world war era, and the post- first world-war era. The warriors had a huge impact on science and technology. The first part was a British age, which was mostly post-Jacobian, Victorian and post-Victorian, all these kinds of aneurism. After the first world war, it was not exactly British, it was Anglo Americanised. From 1910-20 onwards, people were not only going to England, they were also going to America and France. It was a much bigger world, and there was an American and French influence on architecture. This was the second phase. The third phase was the time of the masters. In this time there was Louis Khan, Le Corbusier, and they came around the 40s to early 60s. Then there was a time that came after the masters. This was the phase from 70s – 90s. New personalities like Charles Correa, Chandravarkar, Kuldeep Singh, Raj Rewal, B. V Doshi, Sid Kapadia etc. These were firms that were making a difference in Indian architecture. Then came at a time that was post-Doshi and post-Correa, where there were opportunities and at the same time the competition had increased, the supply had also increased. These were the volatile times, mostly since 1991, post- Raveej Gandhi era of liberalisation. From there architecture entered a fully global phase. Here not only there was an exposure to Anglo-American architecture, but also influences from the Asian sides. We heard about cities for the first time that we had not heard before. Rise of Japan. Tremendous changes came, age of automobiles and small cars. This had a huge effect on cities and as a result architecture also changes. The huge intrusion of information technology also came in with Webel, Microsoft and IBM. The rise of Indian cities like Bangalore, Silicon Valley, Bhubaneswar, Pune, Bombay happened. These are the times of volatile market. We come to the age of huge opportunities, characterised by tremendous demand and supply, and also volatility and uncertainty of market. Then with the Covid, the market has gone haywire. There are about 19 countries in the world that are on the brink of bankruptcy and insolvency. The situation around the world now is extremely volatile. There is a lack of balance between the left brain thinking and the right brain thinking. Lateral thinking is missing. Accordingly, today architecture on one hand is tremendously good, but because of these uncertainties, there is a huge plethora of good architecture and not so good architecture, marketing, crowd sourcing of funds, responsibility of designing, the rise of mushrooming of inferior private colleges around the country, without proper infrastructure, proper features or proper accountability. The nexus between these colleges and other instruments, there are people around who will rip one off. This is the current stage. If we see the volatility of the situation as a challenge, then we win the situation, **otherwise it is very difficult.**

8. **The present curriculum, as set by the council of Architecture, does it help in gaining perspective of the social role of a professional architect for a student?**

- COA is a very powerful organisation. From 5-40 years, it used to be a stamp making organisation. Today they have a lot of power and decision-making responsibility. They are doing good to the profession. At the same time, they have more stronger responsibilities to make things right of the architecture that we know, that is taught through a Percy Brown or Mackay or Time Saver Standards. There is much larger work is to be done. The problem is that the problems in the world are sustained by the silence of the good people, so they are replaced by the not so good people.

9. **Over the time, since the very beginning, has architectural education in India evolved enough to stay at par with the present needs of the users? (Probe - suggested improvements)**

- Users are extremely heterogeneous. If we got to the bottom of the pyramid, the deprived and poor, people who are earning less than Rs. 10,000 per month, are homeless. The affordable housing that we make are absolutely different from the need. If we go to the top of the pyramid, they have too many houses in many cities, that practically they are homeless as well. The middle-income range people need at least one decent house. The problem is the stable healthy middle-income threshold is slowly vanishing. The upper levels of the middle-income group are slowly becoming rich and richer. The rest who cannot compete are going down. India is losing a steady middle income class. If we can remedy that and understand that, then there is a better future for the nation. The architects need to understand the income brackets and the heterogeneity. This kind of training is very important I feel. I teach history of architecture. When I do that, I do not talk about previous temples, churches and mosques. I teach how the community around the temple and churches changed over the time. How the economy changed, and how that affected the culture and finally the design got affected and changed. These are the things that need to be taught in history of architecture, not just the pictures of palaces and temples and mansions.

10. **Is there any scope to accommodate the 17 UNSDG, within the architectural curriculum in India, for better social and cultural sustainability awareness among the students?**

- It can be accommodated but with moderation, with some points that best fit the Indian context. The context of climatic zones, the context of regional variety of available resources, context of local specific artisans, culture and heritage that we have in the city or town system that we have for the last 500 years. This kind of change needs to be done. The global cannot replace the local, they have to co-exist.

11. **Presently, Social and Cultural Sustainability is being taught in only 17 institutes in India among the top 100 ranking institutes. Many institutes amongst these 17 have the subject as an elective, the choice of which lies in the availability of a faculty member who specialises in this topic. Apart from the sparse elective subjects, how can social and cultural sustainability as a subject, be included in the architectural education in India? (Probe – upgrade the present curriculum)**

- It is not important if a subject is core or elective, the most important thing is lab courses which are like workshops. Every subject is taught for at least a semester, which is four months long, from which at least one month should be dedicated to field tours. It does not mean extravagant travelling. What it means is to take bus and travel in the suburbs and rural areas, and see the houses, look at the old temple constructions, look at the available materials, visit carpentry workshops where they work with bamboos, look at the adobe sites, where they produce three different categories of adobe, burnt and over burnt bricks. Look at the categories of these bricks, and which is used for which kind of construction. This is where architecture begins. This should happen not only in a class, but one has to do workshops and take the students out. For this you need the right teacher. Not only those who have been book worms, theoretical teachers who themselves have never been to a field. This lack is the real reason for a major failure in the colleges. That is why the students get disinterested.

12. **As per the literature review that has been done, there remains a considerable gap between what the students learn in theory and how much of it they apply in their design. How do we ensure that the topic of social and cultural sustainability will not fall into this gap?**

- The problem remains in the class, as it all depends on the teacher. If the teacher is a person of practice, and is teaching, they will be able to bridge the gap. The gap can be bridged by multiple site visits, workshops, talking to the contractor, talking to the service man, the engineer, the mason, to know how the bricks are being laid, or the plum liner. Many of us do not know how to make a full station survey of a site, they do not know how to co-exist with the engineer on a site, but these are necessary to know. This is creating a huge gap.

<u>Decolonisation of Architectural Education in India</u>

13. **The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Does the present curriculum need a cleansing in the form of decolonisation? (Probe – architectural identity)**
14. **Do you think decolonisation of architectural education will help in promotion of the topic of social and cultural sustainability in terms of the present conditions of India?**

<u>Role of Council of Architecture</u>

15. **Do you think inclusion of this topic in programs of Council of Architecture Training and Research Centre will help create awareness amongst the professional architects and the academicians of India?**

- The problem here is of either or. Once we were colonised, now we decolonised. Once we are on one side of the river, and now we have to go to the other side. Both are wrong approaches. What we need is a composite approach. We have to take in the good things from the colonised system of education, from which we have to choose properly. From that we have to integrate the decolonised form. We cannot forget what happened before, and then not learn what is new. We have to get the best of both. We have to respect both systems. We need both the colonial model in the post-colonial time, balanced with the Indian model in the post-colonial time. We cannot choose, a composite, synthetic, integral path needs to be chosen.

16. **The subjects taught in the bachelor degree program, are currently divided into the following categories: Professional core, Building Services and Applied Engineering, Professional Elective, Skill Enhancement Courses and Professional Ability Enhancement Compulsory Courses. The topic Social and Cultural sustainability can be vaguely found under the category of Professional Elective. Do you think the topic should have a separate category to itself, or be categorised under any other present categories?**

- Present conditions are very complex, and varies from place to place. There is a heterogeneous landscape of conditions, everything is time and space specific. Macro-planning is fine, but the micro-planning must also be taken into account. That is why the first 3 five-year plans had failed miserably, because they were all macro-planning. One of the largest problems of Indian society today is lack of respect and over intelligence, which

has led to a combination of arrogance and corruption. This is predominant in architecture, as it involves property and money. The lack of ethics, morality, and humanity is prominent.

17. **Is there any additional approach that you would like to add for the promotion of the topic?**

Appendix 7.6: Interview Transcription - HI 6

1. **Please mention your name, designation and the name of the institute you work in.**

- HI - 6, Associate Professor Woxsen University.

Social and Cultural Responsibility of an Architect

2. **What should be the social standpoint of a professional architect? (Probe – Social and Cultural responsibility)**

- Firstly, what does an architect do? The job of an architect is much entwined in the social matrix. When I say social, it can always be extrapolated to mean that we are looking at those conditions which are not at par with what we think is normal. But when we talk about social everything is social. So, when we are performing any activity in the public, it is social. Yes, the architect's job is to provide everybody with living spaces, playing places, working places, the whole platform is a social space. I want to be neutral on that definition of what social means. If we are going to think about social and cultural responsibility as written by you, that is a different word altogether, responsibility. If we are talking about social responsibility, that means we should be in tune with the needs, not demands or wants or desires, but needs. So, the social needs of every group of people, architects mostly desire to meet them but of course we must talk about spaces which are only co-inhabited by human beings, zoo or animal welfare centre, that's also our responsibility. That means whatever needs we derive from the conversation, with a dialogue of the experience of the user, translating that into a physical realm of that social group is definitely a huge responsibility on the shoulders of an architect. Now what happens is somewhere the brief gets lost in translation. Very often we go to a space, there is a shock value. I had been to IIM Ahmedabad on a study tour. We were all excited about the space. But the resident students there were not at all excited. The user often does not care about the architecture based on their experiences. Sometimes things go wrong between the brief and its translation. That is something that we should take on more seriously. This is where the cultural responsibility comes. We need to understand that when we are building a world class institute, it is going to bring in students from all around the country, and our country could be the amalgamation of various countries. We are interdependent, but the difference between Kerala and Manipur is more than what Europe houses. These cultural differences and identities are forgotten when we are building an institute which is meant to welcome all of them. How that can be done is a matter of great deliberation but that is where the responsibility sets in. Our cultures and traditions have many different pathways. Maybe they are meeting somewhere, but they come out like tributaries of a river that have come out from different sources. That is difficult but not impossible.

3. **The United Nations has set up 17 Sustainable Development goals, which include No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Growth and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life below Water, Life On Land, Peace Justice and Strong Institutions, and Partnership for the Goals. Are the 17 UNSDG applicable to the socio-cultural positions of India pertaining to architecture?**

- Yes. Because the practice of architecture is not just a profession or a career. It is a way of life. Because it is about people and their usage of spaces, it has to cover all of this. It has to

be good health and benefits, education, gender equity, all of them. All of these goals mentioned here has to be met to create a productive space, where they can perform all the activities, whether it is leisure, or very concentrated work, they have to have these pillars. Only when you have conducive working conditions, it can be said therefore hunger is zero. Zero hunger is where the lowest income can earn two square meals a day, have clothes on them, and have a roof on their head. When we have a condition in which people can go to and come back from work and are able to perform sufficiently. No poverty is a very difficult economic concept, but we can say very low poverty. If we look into a modern scope of time, a family has two working people, and they are earning, so poverty is low. Very often, in the labour class, the architect and the greater situation comes into force. If one of them have a fall and break his leg, there is no earning member, and thus they are back into poverty. This happened because of lack of harness. We as architects can ensure the work area safety. Architects and engineers become very casual when it comes to the labour class and we hear about such accidents very often, though there are a lot of rules in place regarding safety and security. Therefore, we are entwined in everything. After the pandemic that community was the worst affected. The migrant labourers. There could have been a little more conscientiousness in this matter. They had to leave because the living conditions were not good enough, and they left without knowing what was going to happen. Architects have a huge responsibility as far as all of these SDGs are concerned. I can state more examples but of course one lead to many more.

4. **The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas. In accordance to social and cultural sustainability, is there presently a common ground between the area of concern and the area of influence for the architects, pertaining to the present socio-cultural conditions of India?**

- I have partially answered in the previous question about the labours. In the area of concern, the people are underprivileged, they do not have proper infrastructure, shelter, education or food, or medicine. We always tend to think of architects as complete service providers, meaning it is a complete house that we are going to deliver to somebody. But architects also have a role in the enabling part. We have a huge amount recorded practical experience (literature) around the world, which talks about how we can be enablers. For example, site and services. For a very long time in the history of our country, we have been providing subsidized housing to all those people who cannot afford a house and each of those attempts have been failures. What really worked was the enabling, the site and services program. Aranya is a well-known example of that. There are other examples of the housing departments of the governments who have actually done the site and services program at different levels. Sometimes it was the site and the water and waste, and sometimes it was site and the toilet block. These experiments have been much more successful whenever people have been enabled to build whatever they needed. That has actually helped in getting the feeling of ownership. Subsidized housing has never worked. Even there we have to have regulations as to how much of it they will be able to build, in terms of volume and heights. That has to be in the architect's mind and that has to be handed over to the underprivileged class. If we are talking about a society which is tending towards zero poverty, we can think of such situations where we are giving over ownership of land in

some way or the other. It can be extended ownership for a tenure. If the ownership of the land is not accorded to the inhabitant, nothing can take off. We need to work upon that. But there has to be a system and process by which architects can work on this. Architects can think, and be helped by the bureaucracy. The area of influence has to be reaching upwards and downwards to bring about a change in power.

5. **Architects in India are mostly commissioned by the government, or by the private owners of offices, commercial places, residences and condominiums. Hiring architects is considered to be an elite facility. Is the dominant culture of private ownership and gated communities disrupting the social role and responsibilities of the architects?**
   I would agree to a great extent. Most architects, who are setting up a practice, their livelihood depends on it. So, they are prone to grabbing the first commissioned job that comes to them. Most commissions come from private owners, which could be residents, private developers, and various government departments. Most practicing architects will definitely be hired or commissioned by them. This does disrupt their responsibilities, because first they must tend to themselves, then they can look at the responsibilities. There are architects who must run their homes, offices and treat their employees in this way. At the same time there must be other roles for architects. The active consultancies that the institutes do. The IITs are active consultants, they all have a steady salary. They do it for updating, for keeping in touch, for getting the right exposure and also use their theoretical knowledge in the practical domain. Those I think are the people who can look into this in a different way. For them, the practice is more important not the money. Such cases, the social role can be enhanced, because they are a collective expertise. Here we look at a group of experts and not just at one person in the institute, and they can experiment, they can work around various binders. To build a home for the EWS, the budget is constrained for it to qualify as an EWS project, as a group of architects who can negotiate and talk to the people in power, these constraints can be extended. Low cost or affordable does not only means a small area, it can also mean materials which should architects should be asking for sustainable cities, responsible consumption and production. All of this can be incorporated if barriers are broken. An architect who has just got a job, breaking such barriers may not be possible, for such institutional people, they can dismantle the rules and build appropriately, without limiting the area.
6. **What are your reflections on how the topic of social and cultural sustainability is being dealt with in the curriculums of the global schools of architecture?**

- First of all, we will talk about the Indian schools and then about the ones abroad. I would say it is getting better. In our times there was nothing like this at all. Now the curriculum, even if not a lot, but some changes are there. It used to be History of Architecture, now it is History of Architecture and Culture. The name has undergone a change. This means it is not in isolation. IT is not possible to divorce history of architecture from culture at all, but the consciousness has come somewhere down the line. Therefore, syllabus has also change. It wasn't there in the 80s, or even in the mid-90s. In the last 10 years, the names have changed and the consciousness have come. Now there is something called Human Settlement Planning. We are looking at how the settlements have evolved and that is a part of social evolution that has happened. Housing was an elective in the 5th year in the 80s. Housing now is a subject in 4th year, as theory and as practical. In last 10 years housing had only been a large studio without the theory part, but in the last 3-4 years. It is all about politics, social studies and economies, those have also been included in the architectural

curriculum. We are looking at an evolution in the way, in which the curriculum or the syllabus are being laid out. Building Construction and Building materials are being incorporated with the vernacular aspects, which are intrinsic to our culture. One of our professors used to call it PLVA (Permanent Low-Cost Vernacular Architecture). He had built cities and worked in rural areas, and he had used their own techniques intelligently and in a right space he has been able to use them. He used rat-trap bonds, corbelling techniques, all with bricks. Rat trap bonds, cavity walls are so intrinsic to our culture and also, they were so cheap. At that time, it used to be $1/10^{th}$ of the prevalent cost of building a house. Laurie Baker was a big move in that direction, and we see a lot of experimental work being done in Auroville. Professor Ambarish Mukherjee made a huge difference in that direction in Bengal. Now we see the syllabus, and the whole focus is not on RCC and brick walls only, and focus is coming on to sustainability, and how to reduce waste. ECBC comes not in environmental subjects but in building construction. These have become a part of our daily duties. We are being conscious about the environmental sustainability.

- Global school, I have seen in Sweden and Denmark. The course there is different, it is not a five-year program. They have a concentrated exposure in the first 2 years, and then they are allowed to choose their electives and fields. They have a lot of stress on practical exposure. They have a gap which is important, and then they come back and finish their specialisation. COA also allows that, but it is not encouraged. It is a very different approach to architectural education. I cannot comment if it is good or bad. Architects in the UK, or in other parts of Europe, they study differently than what we do here. In the U.S too, most of the schools of architecture are actually art schools and a lot is about the technicality of design rather than the construction aspects, so it differs from how we look at it. Even when our second-year students are presenting design, they are expected to understand the structure. That is a different way of looking at it. The Social and the cultural aspects are very nicely entwined abroad.

<u>Architectural Education in India</u>

7. **What is your opinion of the evolution of architectural curriculum in India, starting from the colonial period to the present date? (Probe – Adequate changes in accordance to change in needs of users)**

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8. **The present curriculum, as set by the council of Architecture, does it help in gaining perspective of the social role of a professional architect for a student?**

- Yes, it does. Increasingly it has been incorporating and imbibing that aspect, by which the syllabi structure is being formed. Both in the curriculum structure, and the teaching syllabi, the role has been maintained.

9. **Over the time, since the very beginning, has architectural education in India evolved enough to stay at par with the present needs of the users? (Probe - suggested improvements)**

- There has been a great shift. For the longest time it is not mandatory, but it is advisable to keep changing the syllabus, in the entire country so that it is at par. So, it is a good path to follow. The 1983 amendment is being followed. In 2020 definitely present president has taken up this responsibility very well, and has got the minimum standard of the architectural education higher. It was released online. So definitely, the present curriculum has evolved, it is now an up-to-date document.

- When we say users, we have to think about the condition that most people are in today. There are things that the students think about, that are the environmental responsibility, the disaster preparedness, these are also subjects now. As a subject it gets a component into the design. So yes, we are up to date. We look at rating systems today. There is an understanding of how we can bring into the curriculum subjects and topics that the students, the moment they pass out, will have to deal with. In our institute every year there is an update in the syllabi, incorporating new information, to update the students according to the changing needs. We need faculty to improve themselves all the time. In some institutes, faculty is encouraged to go and work in offices just like students. It is a very encouraging move, as the subjects and the world are moving so fast, that we cannot expect any faculty to have enough knowledge about it. They need to constantly update themselves. That kind of environment or situation where a faculty can do that is very important. Mostly faculty development programs are for 5 days, but to be able to know it properly, they need to go out and work on it for a longer time. After 10 years, the faculty are encouraged to take a sabbatical. Incorporating the subjects is not good enough. We also need faculty who can teach them. Another way of doing it is universities having visiting faculty. We must have a lot of visiting faculties coming in to keep the curriculum updated. Council says only 25% of the teaching load can be given to them.

10. **Is there any scope to accommodate the 17 UNSDG, within the architectural curriculum in India, for better social and cultural sustainability awareness among the students?**

- Absolutely there is in 2 ways.
- The Council of Architecture Curriculum, which is the recommended one, definitely has tried on their own to accommodate this as much as possible. For e.g.- Building economics. It teaches us how ewe can be very frugal with a building and how design is absolutely equivalent to the economics part. We can look at reduced inequalities and responsible consumption, all of them come as a by-product of that subject. Because the Council's guidelines are not very rigid, a lot remains with the schools, the faculty to interpret, and therein we can definitely accommodate these 17 UNSDGs.

11. **Presently, Social and Cultural Sustainability is being taught in only 17 institutes in India among the top 100 ranking institutes. Many institutes amongst these 17 have the subject as an elective, the choice of which lies in the availability of a faculty member who specialises in this topic. Apart from the sparse elective subjects, how can social and cultural sustainability as a subject, be included in the architectural education in India? (Probe: upgrade the present curriculum)**

- We do face a crunch. This pandemic has opened up a lot of doors though. Certain subjects can be taught online. We can have experts sitting in different parts of the world, and classes can be offered. In this day of online education this is easy.
- Yes, you are right. These subjects should definitely not be put into electives.
- Subjects like housing or planning are introduced as an elective for a number of reasons. Sometimes we are not sure how these subjects can be incorporated in the larger realm. Sometimes how our students will be able to be faithful to everything else, and these subjects is a question. We may see a lot of enthusiasm and interest in that direction, and then the next year it becomes a compulsory subject. That is the way we test the subjects.
- Imbibing these social and cultural sustainability into various other subjects, as every subject can have some social and cultural sustainability aspect that needs to be enhanced by the interpretation of the school and the faculty.

12. **As per the literature review that has been done, there remains a considerable gap between what the students learn in theory and how much of it they apply in their design. How do we ensure that the topic of social and cultural sustainability will not fall into this gap?**

- It is very important. Whatever the students are doing, they are doing it in theory. There is a great gap. I can say this, the National Education Policy 2020, and what we have for a very long time as the accreditation system, the National Accreditation Council. It is important because there are components of social and cultural responsibility. There is an Extension and Outreach program. Extension is when we are extending our skill to that part of the society which is not able to access it. Our 3rd and 4th year students have a lot of knowledge about design, construction and they can do the calculations or build a model. But are they actually able to construct this on a site? Let's say we have a group which is by definition sheathed from the majority of the society. It may be a special school, a home for juvenile delinquency, a home for trafficked and sexually abused children, these are all marginalised sections of the society. These are communities which would be open to some experimentation by the students. Normally I the students were to go somewhere and try to build something in a backyard, they will not be allowed. But if such communities are approached who are already underprivileged, they are open to chances, because they have nothing to lose. We can also find sponsors for such projects. In many cases waste materials had been utilised to make pieces of furniture. It is a small beginning, but with that they grow confident. The students in the lower classes can learn from the flaws there, and that is a practical evolution. If these can be continued, they can grow into larger systems. By this small beginning, we can avoid such a gap.

<u>Decolonisation of Architectural Education in India</u>

13. **The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Does the present curriculum need a cleansing in the form of decolonisation? (Probe – architectural identity)**

- There is a big hype about decolonisation. Colonisation is a part of our history. We have had periods of Ashoka, the Guptas, the Mughals, then the British, they are all part of our history and why do we want to break away from it? India has been singularly lucky (not sure if it is politically correct) to have so many influences, and yet here we are standing tall and strong as a country for very many reasons. We should be proud of all the inputs that we have had from each of these rulers. They were not intrinsic to India, but we have taken so many things from them like they have taken so many things from us (intangible). I hear a lot about decolonisation, but I do not understand the need for it.
- Western centric ideas, if we are talking about the curriculum, it is supposed to be a reflection of what is happening. In the last 40 years, our primary vocabulary for building has been mostly RCC and somewhat steel. We got in Le Corbusier to design Chandigarh, which is supposed to be a model city. Nehru wanted an architect of international fame to build something here, because we had to break free from the shackles. Our whole mind was into submission, and then fighting. Our minds had not been into culture and heritage because

the whole thing was about fighting the British for 100 years. 1856-1947, 90 years have gone into fighting, and the intellectuals were involved in it, all of the brilliant minds were concentrating on the fighting. That is a time when we were forced into submission, but then when we got independence, our motto was to build a new India, that is free. Thus, an international architect was called in, and the city was built with concrete. That became the new language after Industrial Revolution that we have learnt. In History of Architecture, we study from Mesopotamia, to Greek, to Romanesque, and at the same time we also study what was happening in India. We have Percy Brown's books. In contemporary we talk about everything and depends on the consciousness of the faculty, to know what to be worked on. As time went along, the works of Indian architects were chosen for seminars. We coerce them into learning what has happened in your country. So, we are getting there, slowly, but surely.

14. **Do you think decolonisation of architectural education will help in promotion of the topic of social and cultural sustainability in terms of the present conditions of India?**

- Decolonisation is not necessary to make us realise the importance of Social and Cultural Sustainability in Architectural Education in India.

<u>Role of Council of Architecture</u>

15. **Do you think inclusion of this topic in programs of Council of Architecture Training and Research Centre will help create awareness amongst the professional architects and the academicians of India?**

- Yes, it will help. COA TRC is doing a wonderful job in many directions, one is their training programs, and they have conferences. We have had a very good leadership, and I hope the next president continues the great work.

16. **The subjects taught in the bachelor degree program, are currently divided into the following categories: Professional core, Building Services and Applied Engineering, Professional Elective, Skill Enhancement Courses and Professional Ability Enhancement Compulsory Courses. The topic Social and Cultural sustainability can be vaguely found under the category of Professional Elective. Do you think the topic should have a separate category to itself, or be categorised under any other present categories?**

- I definitely feel that social and cultural sustainability should be included in most of the courses. That would help the cause. If it were to be put in a separate category, I don't think it would find as much relevance as it would if we are going to be able to incorporate it in housing, building materials, climatology, professional core or professional elective. When we are looking at a course outcome, every outcome, except maybe theory of structures, can be clearly detailed, with the social and cultural sustainability. In the design output, we can find the components in the syllabi. Even art and architecture, product design, whether it is a compulsory subject or an elective, it can have a social and cultural responsibility. 90% of the subjects that are taught today can have this component in them.

17. **Is there any additional approach that you would like to add for the promotion of the topic?**

- It is important for the faculty to be trained in this. School heads and faculties should be involved in this together.

Appendix 7.7: Interview Transcription – HI 7

1. **Please mention your name, designation and the name of the institute you work in.**

- HI – 7, Head of Department, Amity University, Kolkata

Social and Cultural Responsibility of an Architect

2. **What should be the social standpoint of a professional architect? (Probe – Social and Cultural responsibility)**

- Profession has a social responsibility. Dealing with and delivering to people are the main responsibilities. So social dimension is very important. Architects may migrate from one place to another, the regional and cultural factors come in, language, technology, climate, a lot of things get involved. It is the culture and social factors that connect people together, so they should always have an upper hand. Housing is an embodiment of social needs. The guidelines that are followed, they are like blanket covers, and if they do not work, people will not appreciate the spaces created for them. In cities like Chandigarh, which are divided into sectors, development varies from sector to sector. In western communities, the involvement of people is very strong, in India, however, nobody cares. Social and cultural sustainability is important and implementing it takes a long time. Maybe the bye laws should be changed to accommodate this.

3. **The United Nations has set up 17 Sustainable Development goals, which include No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Growth and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life below Water, Life On Land, Peace Justice and Strong Institutions, and Partnership for the Goals. Are the 17 UNSDG applicable to the socio-cultural positions of India pertaining to architecture?**

- Before we get to no poverty, we need to ask, poverty in terms of only finance, or are there other criteria? We must also consider the richness in terms of culture. In the state of Rajasthan, in every 25-30 kms there is a different dialect, colour, and every other criteria changes. For hunger, how do we measure health and well-being. Here implementation of bye-laws is in question. The execution is not always in the architect's hands. The architects can design hospitals, but they cannot provide doctors. It is a blanket cover approach. In India, in every region in every district the problem statement changes. The hospital facility and design changes in accordance to the local needs. It may not be finite. The architects have a model for everything, they provide spaces. Shantiniketan, an institute that does not follow any given format is considered a model school. Infrastructure is thus not the only factor. We always talk in financial parameters and money; nobody talks about quality. For clean water and sanitation, the Swachchha Bharat Abhiyaan is there, however the rivers seem to be in the same state. This is because people are not involved in these schemes. Government can do these duties, but simultaneously people need to be aware and thinking. Otherwise, it is just a large investment, but not applicable. Chandigarh is the first solar city of the nation. For energy we have forceful guidelines. However, when the solar panels are installed on the buildings, they look shabby. In summer there is sufficient sunlight, cold water is needed in the colder seasons, however the solar panels cannot be used then due to the fog. In India, if a solar panel falls under the shade of a tree, it is the tree at fault. Presently, the new threat is E-waste. Silicon dust, which is harmful for health, is not

questioned, as it provides clean energy. When it comes to inequality, architects themselves fall unequal next to the engineers when they graduate. In India, an under-construction building gets platinum rating even before it is used by the users. Presently it is all about marketing and selling, nobody is talking about sustainability. The people in the bottom-line of the economic pyramid are never questioned. They are neither targeted, nr considered. Hence there is no outcome for them. UNSDG can be helpful for the cause, but it needs to be given a shape in accordance to the needs of India. UNSDG does not mention about the culture of India, or is not tailored for the Indian society. We are only working on what is visible to us, we do not work upon the roots. A lot can be done. We have good resources but we need to maintain it on a public user level. Currently everything is run by financial set up or growth.

4. **The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas. In accordance to social and cultural sustainability, is there presently a common ground between the area of concern and the area of influence for the architects, pertaining to the present socio-cultural conditions of India?**

- The red-light area of Kolkata, Shonagachhi, is a prime example of a space that needs to be redesigned. It is not apt way of living. But regarding this nobody tries to talk to them, or know their requirements. The difference between their bare minimum living situations, and that of affluent people is massive. From slum evictions, we have moved to slum up gradations. In housing projects, we study the work of Doshi and Correa. There is no bridge for the gap between their time and the present times. If we look at the present, it is all about guidelines and numbers. The private sector is run by profit. For EWS and LIG, the guidelines are met, but they are later sold off. We have no control over this. We can provide for everyone, but the private ownership will never allow it. They want high-density high-rise places. People have been provided with solutions, but they are not model solutions. Many universities have good projects on expendable housing, but they are all on paper. Architects can provide space, but cannot eradicate social and cultural stigmas right away. Architects don't respect what the users have or want, they force upon the users what they want them to have. Migrating nomads, or Banjaras – they keep migrating in search of culture-based livelihood. Space is not made by 4 walls. Our policies and guidelines should be simple. Instead, we are focussing on superficial things.

5. **Architects in India are mostly commissioned by the government, or by the private owners of offices, commercial places, residences and condominiums. Hiring architects is considered to be an elite facility. Is the dominant culture of private ownership and gated communities disrupting the social role and responsibilities of the architects?**

- In the older times, the city of Bareilly had only 12 architects. Much later, big houses were built, with big security. Then came the high rises, with 200-300 units. The relationship among architects lost cordiality for competition. Presently the private parties need to see how much ease can be created for the architects to work. So, architects now only make templates. Gated communities, security and facilities come easy, in easy budget. Nobody cares about the materials. In the same amount 3 units for LIGs can be made. Everything is running on competition and profit. Private sectors can be squeezed further. Surplus housing is in such categories, there is no bias, no control. There is no fear factor for the architects

like the doctors or accountants. This is a big threat. Architects are professionals. They have no authority over how to run things.

6. **What are your reflections on how the topic of social and cultural sustainability is being dealt with in the curriculums of the global schools of architecture?**

- I am not aware. But we should respect what we already have. Clothing, language, food, age old wisdom, we have all of it, but in today's context we are completely lost. We forget the roots; the soil is an important factor. We cannot see our society or our culture. We know about our path, but not where we come from. We need to find a balance, as above, as below. Schools of architecture do not cover the full context. Sustainability is not only about green buildings, but also about what not to do. We need better documentation and maintenance of our history. Society and culture have impact on spaces. Cultural identity is all about documentation. Society and culture have a big connection to architecture. We have to be like pendulums, moving forward and backward again and again.

<u>Architectural Education in India</u>

7. **What is your opinion of the evolution of architectural curriculum in India, starting from the colonial period to the present date? (Probe – Adequate changes in accordance to change in needs of users)**

- Students question the relevance of the curriculum. As students, we are taught about stone patterns and herring bone patterns. However, as professionals, we do not use them. These elements were brought into the curriculum by the British. Our own heritage, the knowledge of Vaastu-Shastra is used by us, but out of fear factor. This delineates the knowledge system. People follow the fear factor. We have reached such heights that the western world could be following us, or learn from us. We have never been able to formulate our knowledge or work as a technical subject. The gap in knowledge that we see today has been created by lack of documentation.

8. **The present curriculum, as set by the council of Architecture, does it help in gaining perspective of the social role of a professional architect for a student?**

- Ideally no. It is only meant to make you technically strong. First, we should have projects which are relevant. Simply defining things in the book and stray case studies are not going to help. We need socially responsible projects. Entire semesters could be dedicated for this cause. It would be more meaningful if students are sent on the field. More involvement on their part is needed.

9. **Over the time, since the very beginning, has architectural education in India evolved enough to stay at par with the present needs of the users? (Probe – suggested improvements)**

- Improvement as in, it needs balance. Students need to be tech-savvy. But they must also know how to render things by hand. COA keeps changing the curricular guidelines. The biggest challenge for the students is the industry, because they are not prepared in their studios to face the industry. Out of 300 credits nearly 80 credits are subjects that are forced on students, which may not be useful later in the industry. In U.K the curriculum is controlled by R.I.B.A. In India, every institute formulate their own curriculum based on the COA guidelines. COA should have at least 50-60% control.

10. **Is there any scope to accommodate the 17 UNSDG, within the architectural curriculum in India, for better social and cultural sustainability awareness among the students?**

11. **Presently, Social and Cultural Sustainability is being taught in only 17 institutes in India among the top 100 ranking institutes. Many institutes amongst these 17 have the subject as an elective, the choice of which lies in the availability of a faculty member who specialises in this topic. Apart from the sparse elective subjects, how can social and cultural sustainability as a subject, be included in the architectural education in India? (Probe – upgrade the present curriculum)**
12. **As per the literature review that has been done, there remains a considerable gap between what the students learn in theory and how much of it they apply in their design. How do we ensure that the topic of social and cultural sustainability will not fall into this gap?**

<u>Decolonisation of Architectural Education in India</u>

13. **The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Does the present curriculum need a cleansing in the form of decolonisation? (Probe – architectural identity)**
14. **Do you think decolonisation of architectural education will help in promotion of the topic of social and cultural sustainability in terms of the present conditions of India?**

<u>Role of Council of Architecture</u>

15. **Do you think inclusion of this topic in programs of Council of Architecture Training and Research Centre will help create awareness amongst the professional architects and the academicians of India?**
16. **The subjects taught in the bachelor degree program, are currently divided into the following categories: Professional core, Building Services and Applied Engineering, Professional Elective, Skill Enhancement Courses and Professional Ability Enhancement Compulsory Courses. The topic Social and Cultural sustainability can be vaguely found under the category of Professional Elective. Do you think the topic should have a separate category to itself, or be categorised under any other present categories?**
17. **Is there any additional approach that you would like to add for the promotion of the topic?**

Appendix 8: Interview Transcription - COH 1

1. **Please mention your name, designation and the name of the institute you work in**.

- COH - 1, Director, Academic Unit, Council of Architecture, India (14 years)

<u>Social and Cultural Responsibility of an Architect</u>

2. **What should be the social standpoint of a professional architect? (Probe – Social and Cultural responsibility)**

- We have to look at the expectations of the other realms of the society. We are looking at this standpoint of a professional architect. This means that we are looking inwards and trying to understand that what is it that we architects need. I think it is also important to understand what other sections of the society expects from an architect. Regarding the social and cultural responsibility, obviously the architect must be aware that his actions have a profound impact on the society, and the impact is long lasting. The architect may not be around but the building, or his work stands, and the architect must be very aware about that. Therefore, before doing any kind of change in the built environment, they should consider what will be the effect of his actions on the sustainability.

3. **The United Nations has set up 17 Sustainable Development goals, which include No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Growth and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life below Water, Life On Land, Peace Justice and Strong Institutions, and Partnership for the Goals. Are the 17 UNSDG applicable to the socio-cultural positions of India pertaining to architecture?**

- Yes certainly, the SDGs are finding applicability in so many realms, in India as well. Architecture can certainly concern itself with a large number of these SDGs that have been identified. Every SDG can find a certain place where architects can architects can engage with.

4. **The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas. In accordance to social and cultural sustainability, is there presently a common ground between the area of concern and the area of influence for the architects, pertaining to the present socio-cultural conditions of India?**

- You are right when you say architects are first concerned with the private ownership than with the government projects. The pandemic has certainly and suddenly brought into focus the responsibility of the architect towards the social dimension. If you look at what was happening a couple of years ago when the pandemic began, one could see that the sense of belonging was not there. We relied on labour which was migrant, they came from different regions of the country and worked in the place which was not actually their home. Although they lived and worked there, mostly in the construction industry, they were not made to feel that it was their home and they could belong there at the time that the pandemic came up, the first thing that happened was they all wanted to go back. They moved back to a place where they felt they belonged. I think this is the area of concern for an architect, for

somehow through their actions and their interventions, they must create a sense of belonging. In sociology you can read about the right to a city. How one can belong to a city, and how the city belongs to the dweller. Because we architects are creating the space that is utilised by these people, we are in a position to influence these conditions of the society.

5. **Architects in India are mostly commissioned by the government, or by the private owners of offices, commercial places, residences and condominiums. Hiring architects is considered to be an elite facility. Is the dominant culture of private ownership and gated communities disrupting the social role and responsibilities of the architects?**

- Things are certainly going to be commissioned by the government, but the architect must also undertake initiatives on their own, and play hard. There are people living in slums, and trying to create a better quality of life. The architect on one hand cannot come out of the projects that they are handling, but certainly they must also examine their role and find out whether there is an opportunity for them to engage with all sections of the society and not just create communities and elite spaces, but also create spaces which can be used by the public as their own and experience what the elites are actually being given. There should not be inequality. Every section of the society has the right to utilise all the spaces in a city, or whichever part of the country that they are staying in. An architect has a big role to play to reduce these inequalities. The best way is to engage with these sections of the society and involve them in creating the space which can be used by everyone equally. There are concerns of safety, security of course. For example, you would have known when you are in Europe which are open to the public, the public can use them as their own, and they are very safe space. The first challenge that we face in India is the population. Our population is so large is difficult to conceive space which can be used equally by everyone. They have to be inclusive for all kinds of people, and make everybody feel safe and secure. These things an architect can certainly do on their own even without being commissioned. There are schools of architecture that are adapting different parts of the city making a change and giving it back to the city. There are several initiatives. These are initiatives that intervene and seriously look at the community. I think the pandemic has taken a positive role in this. It has opened the eyes of the architectural fraternity towards what are their responsibilities and what role they play in the society

6. **What are your reflections on how the topic of social and cultural sustainability is being dealt with in the curriculums of the global schools of architecture?**

- You have done a survey about these curriculums, but generally I find that this issue or topic definitely finds a place in the curriculum of architecture. In some places it could be more voluntary, therefore it takes the place of an elective. In some places it becomes a part of the overall curriculum, and it becomes mandatory. My understanding is it is mandatory in a small number of schools. Your sample of 100 schools is considered a good one, and 21% of them abroad do have this.

<u>Architectural Education in India</u>

7. **What is your opinion of the evolution of architectural curriculum in India, starting from the colonial period to the present date? (Probe – Adequate changes in accordance to change in needs of users)**

- We are still strongly influenced by what was being taught since what was being taught when the course of architecture started in India. There have been changes over the period of time. Rather than being prescriptive and saying this is how it can be done, there is more

freedom to schools and universities to develop a curriculum which suit the needs of their particular region. We must understand needs change as we move across the country. The schools can develop a curriculum that suits the need of their region, that freedom is available. Although some norms are there saying these subjects are mandatorily to be taught to the students, but the schools can still develop the curriculum according to the needs. The curriculum can still be changed to respond to the needs of users at different geographical locations.

8. **The present curriculum, as set by the council of Architecture, does it help in gaining perspective of the social role of a professional architect for a student?**

- There are a lot of subjects, and a lot of topics under so many subjects which cover these roles directly and indirectly. There is something called settlement studies in the curriculum of most schools all over India, somewhere in the first year. The students are taken to a settlement and they are taught about the how the place has changed since the beginning. They speak to the inhabitants, find out what are the requirements, and then they suggest what are the architectural interventions which are then presented to the policy makers of the settlement. These courses are offered in the younger class to the students. That does help in creating the social role of an architect for the student.

9. **Over the time, since the very beginning, has architectural education in India evolved enough to stay at par with the present needs of the users? (Probe - suggested improvements)**

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10. **Is there any scope to accommodate the 17 UNSDG, within the architectural curriculum in India, for better social and cultural sustainability awareness among the students?**

- There is a lot of scope. It gives a lot of guidelines for the teachers to conduct the studios in a certain way so that even within the existing curriculum of architecture, students can be made aware of their social and cultural responsibilities.

11. **Presently, Social and Cultural Sustainability is being taught in only 17 institutes in India among the top 100 ranking institutes. Many institutes amongst these 17 have the subject as an elective, the choice of which lies in the availability of a faculty member who specialises in this topic. Apart from the sparse elective subjects, how can social and cultural sustainability as a subject, be included in the architectural education in India? (Probe – upgrade the present curriculum)**

- The curriculum is developed by the universities for its affiliated colleges. There is generally a board of studies which comes under a faculty of either architecture or engineering, and the academic council of the university. The curriculum is framed by taking into consideration the inputs from various stakeholders of the system of architectural education, and this is a process which I believe either every three years or five years. So, there is a continuous up-gradation. I have been a part of the board of studies in a highly reputed university In India. At that point of time, we developed a course which was an up-gradation on the previous curriculum. The responsibility of upgrading the curriculum is given to universities and they do it very regularly, at least every 5 years, as 5 years is the length of architectural education in India. So once after a cycle of 5 years duration is completed, a new revised course is brought in.

12. **As per the literature review that has been done, there remains a considerable gap between what the students learn in theory and how much of it they apply in their design.**

How do we ensure that the topic of social and cultural sustainability will not fall into this gap?

- Over a period of time, we find that a number of thesis projects which are leaning towards social and cultural issues, is increasing every year. That is an indication to consider that the social and cultural responsibility does not really fall in that gap. Awareness is there, students from all over India are handling these projects. As I see it, a student would not take up a topic for thesis where he/she is comfortable or thinks the topic is too difficult to handle. This confidence comes only when the topic has been handled by the students in the lower classes. The subject of the thesis is chosen by the student, it is not enforced on them by the school. When a student chooses a subject, it is fair enough to think that these subjects are being dealt well in the lower classes of the schools.

<u>Decolonisation of Architectural Education in India</u>

13. **The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Does the present curriculum need a cleansing in the form of decolonisation? (Probe – architectural identity)**

- The process of rethinking, reframing and reconstructing the curriculum happens all over in India regularly. Many of the topics are west centric, or follow the western ideas. I will not deny the possibility, but I will also not say that yes that is what is happening because I find that the curriculum that is being run in many schools presently, does have a way for the schools to take it in a different direction. It essentially means that there has to be a sensitization or a training for the teachers to be able to take up that route. The curriculum allows them to do that. But whether they are actually taking that route or not ultimately lies in the hand of the educators.

14. **Do you think decolonisation of architectural education will help in promotion of the topic of social and cultural sustainability in terms of the present conditions of India?**

- There is not a need per say for decolonisation as we call it, but a need for the educators to understand what this is, and devise ways of implementing within the existing curriculum, which offers that way to them.

<u>Role of Council of Architecture</u>

15. **Do you think inclusion of this topic in programs of Council of Architecture Training and Research Centre will help create awareness amongst the professional architects and the academicians of India?**

- I have done my masters in sociology after completing my bachelors in architecture, and I am very much concerned with what is the effect an architect will have on the society. I have been teaching for 35 plus years now and I do understand the gravity of the situation. At the TRC there is a large number of training programs that we conduct which deal with this topic, either in totality, where the title of the program itself mentions this, or within the program there are several sessions which are dealing with this. The description of the programs is present in the council website. This will give an insight into the programs that are being conducting.

- There is also a thesis awards program, where we encourage the students of the schools of architecture to compete with their thesis, which is the culmination of the studies of the bachelor's degree and over a period of many years we have realised that students are taking up these topics and dealing with them seriously. Last year a separate category of award has been provided. This deals with the issues faced by the society. It is mandatory for schools to submit one project for the intake of 40 for this category. This is the second year of implementation. Over the next few years there will be a databank of the projects that the schools are taking up, which will show that they are aware of their responsibilities.
- There is a project called the urban studio research project (USRP) which was floated last year by the council. This exclusively pertained to the SDGs. There we have opened up the possibility of exploring what are the issues in their own cities and towns and what they can contribute as architects to resolution of these issues. These research projects are going to be conducted by schools together with students and their faculties. This has a dual purpose. It sensitizes and motivates the students to look around and identify the issues, and it also helps the students and teachers together to devise a way of facing these challenges that are coming up in the society.

16. **The subjects taught in the bachelor degree program, are currently divided into the following categories: Professional core, Building Services and Applied Engineering, Professional Elective, Skill Enhancement Courses and Professional Ability Enhancement Compulsory Courses. The topic Social and Cultural sustainability can be vaguely found under the category of Professional Elective. Do you think the topic should have a separate category to itself, or be categorised under any other present categories?**

- The concern about putting it in a different category, or as a topic somewhere is that it leads to compartmentalisation. If a subject is taught as a standalone subject, where does the application come. This topic should be dealt with in all the five categories that are existing. If we look at building services and technology, what are the applications of cultural sustainability? I am looking at developing a program which will help to document the social and cultural practices of different regions in India. If a program is run which says about how India had a very rich cultural heritage and over a period of time this is being ignored, can we create a document which says this is how our community was doing things in the past and this is how the society was benefitting from these practices. If we can prepare a document like that and place it in the public domain, I am sure it will increase the awareness about these situations. There is no need to create a separate category for this topic, but the best way would be to integrate it in all the categories.

17. **Is there any additional approach that you would like to add for the promotion of the topic?**

Appendix 9.1: Interview Transcription - SAA 1

1. **Please mention your name, designation and the name of the institute you work in.**

- SAA - 1, Assistant Professor, IES College of Architecture, Mumbai, Social activist

Social and Cultural Responsibility of an Architect

2. **What should be the social standpoint of a professional architect? (Probe – Social and Cultural responsibility)**

- A lot of architects today have been seen to focus a lot on the aesthetics of the space as required by the client. 99% of the times the comfort user experience and comfort get side-lined. I thing that is one of the most primary social responsibilities of an architect, as we are largely equipped with the skill that can provide for that. For the last 5-10 years, that is what I see, that they are not striving to provide the basic user experience, the ambition and aspiration continues to be that the project should look good at the cost of the user comfort. There can be a lot of other responsibilities, like community engagement, but they are also very subjective. At the basic architect level, just after graduation when they are new to the profession and do not know which way to go, they should observe how a person lives and works and give the user what the user does not even know they need.

3. **The United Nations has set up 17 Sustainable Development goals, which include No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Growth and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life below Water, Life On Land, Peace Justice and Strong Institutions, and Partnership for the Goals. Are the 17 UNSDG applicable to the socio-cultural positions of India pertaining to architecture?**

- They are very relevant. All of these topics have a lot of relevance with the projects that we take up for the students, the kind of discussions we have and the kind of exposure that we try to give them. The institute that I work in, we have a lot of out station students, who sometimes come from rural settlements. Especially in the pandemic they faced the reality, and all of these issues were facing us in some way or the other. I am not sure if all of these aspects are being addressed in terms of profession but in the education, we are genuinely and honestly trying to make the students aware of the larger global perspectives, and the global issues that are at hand and what sort of a role an architect can play at the betterment of these things. Even basic exposure sometimes helps. At the professional level of my age, who have been in the profession for 10 years, friends and colleagues who run firms which very strongly are addressing these issues and they are doing some great work. It is at a grass root level, which is precisely where these issues can be resolved from. There are a lot of people who are working on these issues.

4. **The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas. In accordance to social and cultural sustainability, is there presently a common ground between the area of concern and the area of influence for the architects, pertaining to the present socio-cultural conditions of India?**

- There are architects who are working in these sectors, working in NGOs, bringing about a lot of social change. With my institution, we had conducted a trip to a small village in Madhya Pradesh, and we had exposed the students to what is the reality of discrimination. There is a very interesting project in MP, called Janwar, where a European lady from Afghanistan has built up a skating rink. There is a social discrimination in terms of caste, gender all happening through the architectural insertion of a skating rink. She is making these rinks throughout India and a lot of architects have joined her for the architectural intervention that has to be undertaken. I also have a colleague, who runs an NGO called Design Jatra. They are hard core into sustainability and mud architecture. He also lives and works in the village. He has helped the village fight against corruption on a pro bono basis. They do a lot of community services. There a lot of architects of our generation who have taken up these responsibilities and opportunities of social gaps. They are trying their best to help people, and make architecture more meaningful than the particular sectors that you mentioned. They are also getting paid by some means or the other for this work. Things are changing, but of course it has its own pace. There is also a lot of practices like these that goes on in Kerala.

5. **Architects in India are mostly commissioned by the government, or by the private owners of offices, commercial places, residences and condominiums. Hiring architects is considered to be an elite facility. Is the dominant culture of private ownership and gated communities disrupting the social role and responsibilities of the architects?**

- I agree to this. Architects are trying to survive the market and erratic income from freelancing. As a faculty member, I have a steady income. An architectural photographer does not have that facility. Architecture in itself is an elite profession, somebody specialising in architectural photography is further elite. To get projects it gets very difficult. Architects also have this costly image in the Indian society. If an architect is hired the project will be more expensive, or less cost effective. However, it is the other way round. Architects can get things done in much reasonable rate. There is this know-it-all understanding in the Indian society, where it comes to home building. Internet websites are also helping people, but it is a pseudo practice of architecture. The gated communities are definitely contributing to the neglect of what we could have done for socially deprived section. Hiring an architect can make projects much more cost effective.

6. **What are your reflections on how the topic of social and cultural sustainability is being dealt with in the curriculums of the global schools of architecture?**

- I am not aware of what is happening all around the country, but on a personal level I try to bring about an awareness and an exposure of the reality for the students. We collaboratively run an organisation/publication house called People place project. We help students map places through its people. What they have to do is every year we decide a large topic, and decide what place they will go. The students have to go to these places and talk to the people, and understand the various stages of what people have to undergo in their lives. That actually helps address a variety of social topics like gender discrimination, caste, class, religion and nation. The basic thing that a student did not know, which was very surprising for us was that a caste and class is different. These are usually 6 days long workshop, where they move back and forth having conversation with people and discussing it with us, trying to find the undercurrent and from there we go forth in research. They eventually do an article writing. This has been a very conscious effort, as it is not directly related to architecture, but my institute allows us to take these parallel pathways when it

comes to architectural education, which does not directly demand anything like this. The Mumbai university syllabus prescribe humanities for only 3 years. The socio-cultural responsibility, the understanding of what society is, culture is and whether it had an impact on the design, is hardly has any time. Out of these 3 years 2 years go into teaching the history of architecture, so there remains very little scope. So, when we do a design project, our focus does not really go into the socio-cultural aspect of the project, or how the project is going to have an impact on the world. We are focussing on the organisational skills and syntax. This workshop we do very aggressively. 2 years ago, we had worked on water narratives. The students had done the entire project online. They had interviewed people around, and found some great stories. In semester 4, we make a very conscious trip for documenting a rural settlement. As part of architectural documentation, we also do this kind of narrative exercise. It is not very rigorous; they make observation analysis and then prepare a report which supports the architectural documentation. It gives them a brief exposure. The syllabus of Mumbai University mentions the words socio-cultural, but it comes in the form of historical study. It is a very vague syllabus. There is a gap, but there will always be a debate about how much of socio-cultural input there should be in the curriculum. We have to make the students architects first. A lot of it is left to the backgrounds that they come from and go back into after they finish their education. The architectural education that I had was far more defined, and had much more boundaries than what we have today. Today at least there are openings. The whole idea of having an inter-disciplinary learning is still very new to the academicians here. They get very uncomfortable on having these discussions. By the time the students reach their final year, it is needed to give them some projects with social issues to bring out the social responsibility. I always feel, that because in the first four years they are no exposed to that, it becomes very difficult for them in the final year as it is very new to them. They cannot handle, and then eventually we see very good research, but the design implications are missing. The comments that come is the design project does not reflect the amount of research that they have done. In conservation we have conversations about the intangible heritage of the country, the self and the family. Many times, the students are not even aware that their family could have something that is worth becoming a heritage.

<u>Architectural Education in India</u>

7. **What is your opinion of the evolution of architectural curriculum in India, starting from the colonial period to the present date? (Probe – Adequate changes in accordance to change in needs of users)**

- That definitely has happened. When I was a student, the curriculum was far more confined and very boxed up. When I am teaching, it is a completely new system. There are also a number of options available where we can do what is needed, things that are not within fixed boundaries. I also think that there is a lot of merit to colonial system. It gave us this sort of a discipline. I have previously mentioned how the architects are not giving importance to the user comfort. The education in the previous years subconsciously taught that to the students. I feel there is some amount of discipline required in the Indian education system, especially the bachelor's education. It is also the way in which our society functions, because 99.9% of the times the parents are sponsoring the education, so there is a lack of responsibility, seriousness, and that is where the discipline works. But we have come a much longer way from the British education system.

8. **The present curriculum, as set by the council of Architecture, does it help in gaining perspective of the social role of a professional architect for a student?**

- No. It would be good if the council somewhere mentioned that they did not only try to make the students into certified architects but also into sensitive citizens. But that is nowhere mentioned. If we look at the COA curriculum it is very categorical, has a lot of quantifiable courses, which works on a disciplinary level, but if it is about sensitizing someone, then it is very limited. There are electives in the curriculum, but they too are very limited.

9. **Over the time, since the very beginning, has architectural education in India evolved enough to stay at par with the present needs of the users? (Probe - suggested improvements)**

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10. **Is there any scope to accommodate the 17 UNSDG, within the architectural curriculum in India, for better social and cultural sustainability awareness among the students?**

- I think that definitely can be done. I personally like History of Architecture, but it is not so commonly liked. So, if subjects like history can be made optional instead of a mandatory course, or the other option is if the course of humanities could be continued in the higher classes as well. Once the students are ready with the architectural tools of making drawings and incorporating the surfaces in the senior years, they could be a lot more accepting to the concepts of socio-cultural aspects around them. The junior years, it is not like they do not understand, but that there are too many things that are served to them, and they may get lost in it. Last year I had conducted an elective on mythologies with the senior year students, and the institute suggested it should be conducted with the junior years as well. I was confident that only the final year students will be close to understanding what I was trying to teach them. Mythology is a very sensitive topic, and in India it can end up offending someone by saying something so a level of maturity is needed for handling a topic like this. The senior students stopped looking at it as a theory subject that needs to be done compulsorily, and started appreciating it, and understanding how these things are applicable to the design. The junior students had yet not reached that level of grasp.

11. **Presently, Social and Cultural Sustainability is being taught in only 17 institutes in India among the top 100 ranking institutes. Many institutes amongst these 17 have the subject as an elective, the choice of which lies in the availability of a faculty member who specialises in this topic. Apart from the sparse elective subjects, how can social and cultural sustainability as a subject, be included in the architectural education in India? (Probe – upgrade the present curriculum)**

- Hiring a sociologist to address the problem, they only talk about the sociological aspects. We need architects for these talks, who can also provide some architectural solutions. Such teachers are very rare to get. The social and cultural aspect should not just remain as a theory subject. The theory classes have no interaction, they create a monologue situation. The students have a minute-to-minute socio-cultural interactions in their life. Teachers need to bring that out, such teachers are rare. According to the agenda of Council of Architecture, only professionals once certified can teach a course, this is different from the situations abroad. Multiple examinations are there to keep a regular check if the professional is updated. We are forgetting that the course of architecture does not aim to create builders.

12. **As per the literature review that has been done, there remains a considerable gap between what the students learn in theory and how much of it they apply in their design.**

How do we ensure that the topic of social and cultural sustainability will not fall into this gap?

- The institutes should apply a different approach. When we design a city, we do not work like Jane Jacobs. A design method should guide the designer in the right direction, and if we can have professionals from different fields like sociologists and cultural experts in the group, helping us understand the situation from the different perspectives, their presence could bring a lot of change in the design outcome. We need more inter disciplinary sensitivity, and right now, we are very far from becoming an inter-disciplinary subject.

Decolonisation of Architectural Education in India

13. **The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Does the present curriculum need a cleansing in the form of decolonisation? (Probe – architectural identity)**

- Nowadays, the students are well aware of, or understand the needs of learning Byzantine or Gothic architectural history. In Indian context they are irrelevant. There is another western influence which is the American influence. The Western philosophy of aesthetics is way too far for the architectural students in India. Altogether, from the perspective of an Indian architectural student, they are all irrelevant. They may question why we are still reading about foreign architects, or why we are still judgemental about architectural journalism, or what the Indians are writing. Indian architectural journalism is still very nascent, but it is judged. There is no encouragement. We need to take small steps for this decolonisation move, and it will take time.

14. **Do you think decolonisation of architectural education will help in promotion of the topic of social and cultural sustainability in terms of the present conditions of India?**

- It will. Some decolonisation has already happened, now we are looking at other aspects.

Role of Council of Architecture

15. **Do you think inclusion of this topic in programs of Council of Architecture Training and Research Centre will help create awareness amongst the professional architects and the academicians of India?**

- The TRCs are mandatory. Posters are sent, and fees are paid, colleges earn points. The topics of discussion though are not points of interest; they are force fed by the prescription of the TRC. The quality of the programs is judged by the participant feedback. Some of the topics of discussion are very irrelevant. It becomes like a typical classroom session. The problem with the professionals addressing the TRC sessions is that people choose this because of easy money, not because they are passionate teachers. If they don't enjoy teaching, then it becomes a compulsion, and COA TRC is doing just that. The primary goal must remain only to teach. There is a lack of teachers who can teach teachers how to teach architecture.

16. **The subjects taught in the bachelor degree program, are currently divided into the following categories: Professional core, Building Services and Applied Engineering, Professional Elective, Skill Enhancement Courses and Professional Ability Enhancement Compulsory Courses. The topic Social and Cultural sustainability can be vaguely found**

under the category of Professional Elective. Do you think the topic should have a separate category to itself, or be categorised under any other present categories?

- Social and cultural sustainability can be put into all the 5 categories. From services to the core professional, there is always a social and cultural connect. A passionate architect, teacher or professor will always address this directly. There are too many institutes today, and they need teachers, so by this random selection, the standard level falls. As a separate category, the topic will not be well imbibed.

17. **Is there any additional approach that you would like to add for the promotion of the topic?**

Appendix 9.2: Interview Transcription – SAA 2

1. **Please mention your name, designation and the name of the institute you work in.**

- SAA – 2, Associate Professor, SPA Delhi, academic author and critic

Social and Cultural Responsibility of an Architect

2. **What should be the social standpoint of a professional architect? (Probe – Social and Cultural responsibility)**

- There is no escape the issue of climate change today, and it should be addressed through all of these issues. It is not a singular responsibility.

3. **The United Nations has set up 17 Sustainable Development goals, which include No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Growth and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life below Water, Life On Land, Peace Justice and Strong Institutions, and Partnership for the Goals. Are the 17 UNSDG applicable to the socio-cultural positions of India pertaining to architecture?**

- Why choose 17 UNSDGs. Given the history of UN, I was set up at the time when some of the colonisers were getting weak, and it was a new way of creating supremacies. The SDGs are inclusive. I am not so sure if we should use SDGs for this. From a more philosophical point of view, we assume these arguments for equality and justice are good, but I am not sure if clean energy will dove-tail into issues of reduced inequalities. From a philosophical angle, I don't see them converging into creating a sustainable world.

4. **The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas. In accordance to social and cultural sustainability, is there presently a common ground between the area of concern and the area of influence for the architects, pertaining to the present socio-cultural conditions of India?**

- Some of these large sweeping statements about private ownership and public domain, government projects, etc., if you look at the SDGs, you can't ignore the issue that there are large number of global organisations at play, like the World Bank, the IMF. There is a lot more at play than simply looking at the dichotomy between one set of concerns which you are clubbing together as private ownerships, and government projects and other having people with issues. We must question what is proper infrastructure? What is proper shelter? In the 60s and 70s, housing, the minimum area allocated was 50 sqm. Today it has gone down to 28 sqm. All of these need to be unpacked. Today what is working, it would be substandard services earlier. I think the vision of the future, what needs to be, especially in a place like India, is extremely contested. I really do not know how much of it is under the architect's control.

5. **Architects in India are mostly commissioned by the government, or by the private owners of offices, commercial places, residences and condominiums. Hiring architects is considered to be an elite facility. Is the dominant culture of private ownership and gated communities disrupting the social role and responsibilities of the architects?**

- The question is specific to India. John Turner in his book had mentioned that over 90% of the world builds their own houses. I don't think that has changed either in India, or in any part of the world. Most people do not use architects. 'Elite' is a way of indicting ourselves, whereas in most areas we architects are irrelevant. Whenever there is a role for the architect like in New Delhi, it is either the Vimal Patel view or what the government wants us to do.

6. **What are your reflections on how the topic of social and cultural sustainability is being dealt with in the curriculums of the global schools of architecture?**

- I used to be a program designer in the Ambedkar University. It was a humanities and social sciences university that was teaching that was teaching that there is not enough humanity in the world. To understand social and cultural sustainability one needs to understand humanities which I don't think is being taught in most curriculum. It is easy to say in architecture the sciences deal with the ontological issues whereas the humanities normally deal with the epistemological issues. Epistemological issues will make the architects jittery about their actions and will make them think twice. They'd rather not have that, so they focus on the ontological issues. I think that is a huge problem. Earlier in my university we used to teach theory of design, today it has become design methodology, S.P.A does not have any humanities courses which have more than 2 credits. I don't think the course structure or the time that is given to deal with these larger issues is adequate.

<u>Architectural Education in India</u>

7. **What is your opinion of the evolution of architectural curriculum in India, starting from the colonial period to the present date? (Probe – Adequate changes in accordance to change in needs of users)**

- I am not sure how to answer this, there must have been one or two universities that taught architecture before independence, like J.J and S.P.A, and they were creating draftsmen. So, I don't think the colonial period was trying to create architects. I am not sure how many schools of architecture were set up by them. So, we cannot say much about the colonial era. The evolution happened when we looked at the buildings and curriculum through socialist lenses. There is no neat evolution. Sometimes the curriculum changes because of major political scenarios, and major upheavals happen, and I really don't think they think much about the users. The architectural drawings, or magazines, the users are never shown. I don't think the users have been considered into the scenario, and even if they have been considered, it is through the horrible lens of anthropometry, where the user is based on bodily dimensions. We do not consider that the Indian male is smaller in size, and the female is even smaller in size. Air conditioning is a gendered chapter, where it only teaches to make men feel comfortable in the offices. My point here is that architects don't consider users, and they don't evolve. We have the National Education Policy, and architecture has to include some of those. In some schools, things change on a personal initiative. I don't think one can chart how the evolution took place. I don't think episodically one can see some relationship to the market. I am a firm believer of 'form follows the money'. One of the biggest frustrations is that the students are not empathetic to the users. A student brings in a walkthrough of a low-income group housing, and there is a Mercedes driving through it, that is clearly insensitive.

8. **The present curriculum, as set by the council of Architecture, does it help in gaining perspective of the social role of a professional architect for a student?**

- I don't think the COA should have any role in the education arena. They can set up certain standards and guidelines if they like but COA in India is too hard handed when dealing with the curriculum. Some years ago, COA came up with a rule that said those students who do not have a science background will not be eligible for architecture. My own experience teaching architecture the students who came from the background of commerce, humanities and arts, had a much better grasp on architecture. So, I don't think COA should play such a large role in architectural education in India. Also, I don't think social and professional are synonymous. In UK there are many steps of design, in the US they have conceptual, schematic sketch of the design, design development and working drawings. I think design development has a large component, and it came with the understanding that architecture is no longer depending on the architect you have to work with, structural engineers and others have equal share. COA, in case of professional practice, they only have schematic design and working drawings. Architecture is a team work; one has to work with other professionals. I had written strong feedback about this. It still has the attitude that architect is the chief builder, and thus I don't think they look at architecture as a social profession.

9. **Over the time, since the very beginning, has architectural education in India evolved enough to stay at par with the present needs of the users? (Probe – suggested improvements)**

- If you are saying colonial, it was never about the user, it was always about the ruler. The point is that the user drive design, service design, there are very recent ideas, a s previously we did not really consider the user. The user is always looked at as this despicable creature that is responsible for the breakdown of a city or a building, because they are uneducated, they do not know how to us the building and it is never the architect's fault. It is a well-established issue. The user now is considered as important in the way a building is designed, and we study about it. So, design has progressed, now there are substantial changes in how we perceive design, and we teach social design. However, I do not think that has necessarily translated into architectural design methodologies.

10. **Is there any scope to accommodate the 17 UNSDG, within the architectural curriculum in India, for better social and cultural sustainability awareness among the students?**

- It is my personal point of view, in 2009 Debesh Chakraborty wrote a very compelling article called the 'Climate of History' that talks about the use of fossil fuels. My worry is that the UN is not taking as necessarily serious a role towards fossil fuels, though they have agendas. The UN lets the rich countries get away with the lot. To look at the SDGs we must note these. I don't see the SDGs working, especially after what we saw post covid.

11. **Presently, Social and Cultural Sustainability is being taught in only 17 institutes in India among the top 100 ranking institutes. Many institutes amongst these 17 have the subject as an elective, the choice of which lies in the availability of a faculty member who specialises in this topic. Apart from the sparse elective subjects, how can social and cultural sustainability as a subject, be included in the architectural education in India? (Probe – upgrade the present curriculum)**

- There is a problem how the issue is being framed. The COA prescribes overn85% of the syllabi, what must be taught. Social and Cultural sustainability is something they are not looking at, then the subject has to be included only through electives. So, it is not that only 21 are doing it, COA allows very little flexibility in the curriculum. They almost prescribe what the 5 years should be like. The only place where there some flexibility is the elective,

and that the faculty might offer to the students. I don't think it is a problem of the institution. Some institutes don't need it. The COA says that tat the end of the first year we have to register the students in the central data base. If the student after 2 years decides to join design, it looks like a large failure on the university's part. That is why I said COA should not play such an important role. COA is like a toothless dog here. Many buildings are being built by the engineers, and the architects are not even recognised, so what is the COA doing? They have to make some money, so every year it inspects colleges, looks at the curriculum. I am not a very institutional person. We are bound by the COA. But it is always a fight.

12. **As per the literature review that has been done, there remains a considerable gap between what the students learn in theory and how much of it they apply in their design. How do we ensure that the topic of social and cultural sustainability will not fall into this gap?**

- I don't think it can be ensured. It is an architectural fallacy to think that they have studied something and they can replicate it. Communities need to come together and need to find their social and cultural mechanisms to change their lives. It is a God Complex to think everything can be sorted out by the architect.

<u>Decolonisation of Architectural Education in India</u>

13. **The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Does the present curriculum need a cleansing in the form of decolonisation? (Probe – architectural identity)**

- Architectural studios are still looking at Bauhaus principles. Nowhere in the West have we used labours as extensively as in Indian system. But we do not study about that, we do not learn about the ground. More than decolonisation we should be looking at post-colonial situation.

14. **Do you think decolonisation of architectural education will help in promotion of the topic of social and cultural sustainability in terms of the present conditions of India?**

- Decolonisation for me is a metaphor. We cannot look at climate change without looking at racism. We have to be mindful of the 'Mistries and Shastries' system. Our students don't know how to use their hands. The Brahmanical system must be abolished. The Brahmanical system in education must be abolished. This dichotomy must go away before decolonisation. Students need to work with their hands. We tend to take science as our base, while it is the epistemic humanistic approach that we need to apply.

<u>Role of Council of Architecture</u>

15. **Do you think inclusion of this topic in programs of Council of Architecture Training and Research Centre will help create awareness amongst the professional architects and the academicians of India?**

- Not so sure how effective they really are. SPA does not participate in them. They have their own matrix. UGC pushes the institutes towards these training programs. They teach very general subjects, they take no experimental steps, not even towards climate change. The focus of COA is mostly on the ontological issues, and the socio-cultural aspect is

epistemological. The main focus of COATRC has no major distinctions, and margins on the ECBC formulae. They have no focus on the sustainability disruptions that are taking place.

16. **The subjects taught in the bachelor degree program, are currently divided into the following categories: Professional core, Building Services and Applied Engineering, Professional Elective, Skill Enhancement Courses and Professional Ability Enhancement Compulsory Courses. The topic Social and Cultural sustainability can be vaguely found under the category of Professional Elective. Do you think the topic should have a separate category to itself, or be categorised under any other present categories?**

- No. It doesn't work like that. Any topic needs to be taught in a school in an elementary way. The students get no understanding of how the 5 streams come together; it is not taught to them that way. From Vikramaditya Prakash to D.K Ching, they understand all of them individually. The social sciences should be looked at in the basic way, not in these different silos. The core of the course seems to be missing and humanities and social sciences could very well be that missing core that brings all of it together. And there definitely is a deeper need to include people.

17. **Is there any additional approach that you would like to add for the promotion of the topic?**

Appendix 10.1: Interview Transcription - AP 1

1. **Please mention your name, designation and the name of the institute you work in.**

- AP - 1, Conservation architect. Associated with O. P. Jindal University. 15 years. Practice person

<u>Social and Cultural Responsibility of an Architect</u>

2. **What should be the social standpoint of a professional architect? (Probe – Social and Cultural responsibility)**

- I have practiced with the community. For the past 15 years I have been working in the profession. My opinion about social and cultural, architecture in general is a service industry. You tend to deliver what is asked by your client. That is the core of architectural responsibility as a professional. The domain of social and cultural responsibility is quite deep in our country. The idea is very philanthropic. The projects which are culturally and socially viable, they are either funded by philanthropic bodies or organisations. It doesn't take a part to switch away from our responsibilities. It is quite a relevant subject. Architects contribute towards making of the society. In general, I have a very different take about this. Since it is a very service-oriented industry, it is a very well- paid kind of profession. So, a social architect, a community architect, or a public design architect is not a well acknowledged profession in the whole country itself. If you will see, there are a lot of people who are working in non-profit organisations, the idea of architect being a sociologist is very romanticised according to me. For architectural profession in India, we are not trained to do this. I was very keen towards working in community projects so I took up projects in the cities of Rajasthan, but if you start comparing it with the kind of need it has, we have not been able to create a niche for this. The idea is it has to be acknowledged, not only in monetary terms but also in terms of academy.

3. **The United Nations has set up 17 Sustainable Development goals, which include No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Growth and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life below Water, Life On Land, Peace Justice and Strong Institutions, and Partnership for the Goals. Are the 17 UNSDG applicable to the socio-cultural positions of India pertaining to architecture?**

- I think all 17 are quite viable, not only to India but every nation in the world. In every nation there is hunger, poverty, need for lean water and sanitation. We are romanticising the profession of architecture. When we talk about all these things, these are very multi-disciplinary faucets. Even at the school level, the basic level of education, the students are not taught about the application of the SDGs. One cannot remove poverty altogether. One can only be enabler of it, if they are able to generate jobs. Architectural profession in India, people are still struggling themselves. In this question the idea should have been a multi-disciplinary way. The architect can be a part of the whole system of the profession, where sociologist, economist, architects, planners, health professionals they all can holistically generate of work. But the contribution of architects in the whole profession would still be very minimal, as they are not trained to do any of this, like curb zero hunger. They can go through a psychological way to design spaces. It boils down to tangible and intangible aspects. Architects as a whole are trained to provide some idea of these SDGs through their

tangible outputs from their profession but still doesn't count, as the intangible roots go deep down. We have a different sector of work and a different region of profession. As multi-disciplinary professionals we should definitely pitch in, but only architects and pedagogics can't make a big difference in the long path. The role of an architect is critical but only from a multidisciplinary angle.

4. **The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas. In accordance to social and cultural sustainability, is there presently a common ground between the area of concern and the area of influence for the architects, pertaining to the present socio-cultural conditions of India?**

- I think there is a common ground. I think there are elements that are trying to contribute towards the areas of concern that you have mentioned. I think public domain and government projects in this case has a quite good overlap, because government projects are mostly public projects and they have a very relevant impact. All the political turmoil that India is going through right now gives us a bigger opportunity. In my opinion, I haven't seen so much opportunity for job in the government sector before. It could be contractual or long term. This is because we are trying to develop a high-speed urban infrastructure like the smart cities. This is actually a big opportunity for professional architects. A lot of work is happening in the areas of concern, like shelter, education, food medicine, each and every sector right now is at the verge of change, with a big impact. This is the right time, and people are being exposed to all these domains as well. The cities are being transformed every day. But the high speed is enabling us to work simultaneously in the public and private domains.

5. **Architects in India are mostly commissioned by the government, or by the private owners of offices, commercial places, residences and condominiums. Hiring architects is considered to be an elite facility. Is the dominant culture of private ownership and gated communities disrupting the social role and responsibilities of the architects?**

- It is a very service-oriented industry. Social and cultural sustainability in architecture is a different kind of domain, sector and practice, it needs to be integrated into the education. If we look at architectural education from the colonial times till now it has always been a service-related industry, and it has to be accepted that way. The dominant culture is gated and there is no harm about it. It is about the choice. Fellow professionals of mine, they are happy working in gated communities and they are being paid well for it. There is no contradiction about it, they are two very different kind of choices. For me, social and cultural responsibilities are important. Rather I would say these responsibilities leading to an architect being a socio-cultural specialist is overarching. They are still surveying their client, and every client is different. The architect can be the bigger impact. It is all about the thought process. You can make a substantial change by working with a private client, firstly if the client themselves is of that kind of importance. You can make zero waste building or a climate responsive building with the private client and in that way, you are contributing to your social and cultural responsibility. But making the larger of impact in the community is totally a matter of choice. Working in a gated community according to me is fine as that gets the architect paid. The social and cultural role is not as much acknowledged here as in U.S or in U.K. The thought has to be inherent in the education and the profession, and be a part

of every project, there should not be a distinction. Every construction done even for a private client must take into account the social and cultural responsibility. It is an ethical responsibility, where the waste is being dumped, or whether it is being recycled or not, while working in a private project, I can choose to take care of the community outside. It is a matter of masses, whether you are catering to a small number of people inside or a large number of people outside.

6. **What are your reflections on how the topic of social and cultural sustainability is being dealt with in the curriculums of the global schools of architecture?**

- In India it is not being dealt very clearly. It is not being taught in a sense in which you are trained to be a socio-cultural sustainable professional. Globally it is more acknowledged. IT is also more participatory. Things are changing in India. The result of which can be seen in the works of the architects.

Architectural Education in India

7. **What is your opinion of the evolution of architectural curriculum in India, starting from the colonial period to the present date? (Probe – Adequate changes in accordance to change in needs of users)**

- By the reflections of the ideas of the colonial period, the craftsman was being limited to a labourer. Our manuals, the building construction codes, the kind of architectural education we are providing, they are all much colonised. Architect is not the sole creator; the craftsperson is the creator. But the idea of a craftsperson was very colonised and limited to a low position. So, the evolution of thought is needed. What we have not borrowed from colonisation was the idea of apprenticeship. It is still practiced in U.K, the apprenticeship model. Post- independence the ideas of colonisation was numbed down, but we should have borrowed the idea of apprenticeship. Education and architectural standpoints should be more rigorous, very capitalist, but very comprehensive. In R.I.B.A the students are exposed to the systems, but in India, at the end of the course, they simply do a small internship, which is the issue, the COA's idea of making an architect. The process should be more rigorous.

8. **The present curriculum, as set by the council of Architecture, does it help in gaining perspective of the social role of a professional architect for a student?**

- It is very thin, not very explicit. You are offered courses, like sociology but only for a semester. It is not imbibed in every course. SDGs has to be a part of every curriculum, in all over 5 years. Students work on every kind of project, and students are expected to design a school or a hospital like a professional, but how much about the society does the student learn from it? There needs to be a complete turn-around in the curriculum. It doesn't always have to be project-oriented; the projects need to be demonstrated. The idea and the methods of architectural education should make the socio-cultural aspect a part of every project. But we are not taught in a method in which the social and cultural aspects become a part of the form and structure. We need to be explicit on many things with a very clear path. How the services need to be socio-culturally supportive, and the students need to put that into their project. We are not very inclined with the industry with these topics. The idea of live projects needs to be promoted. The students need to know about social and cultural sustainability while knowing what is happening in the real world outside. They need to be associated with the real clients and real projects and that can be done easily. No project is a hypothetical project and the students need to talk to the clients and think about

how it affects the society, in a very realistic manner. Sitting in studios will not teach us about the people.

9. **Over the time, since the very beginning, has architectural education in India evolved enough to stay at par with the present needs of the users? (Probe - suggested improvements)**

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10. **Is there any scope to accommodate the 17 UNSDG, within the architectural curriculum in India, for better social and cultural sustainability awareness among the students?**

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11. **Presently, Social and Cultural Sustainability is being taught in only 17 institutes in India among the top 100 ranking institutes. Many institutes amongst these 17 have the subject as an elective, the choice of which lies in the availability of a faculty member who specialises in this topic. Apart from the sparse elective subjects, how can social and cultural sustainability as a subject, be included in the architectural education in India? (Probe – upgrade the present curriculum)**

- The idea that we are the creators is not right. We are the facilitators, if we try, the curriculum can inform us explicitly, and we have to work within this sector with given facilities. There is collaboration with the government, and working very closely with the council. Opportunities should be given only through collaboration. The universities and institutes were working along, collaborating with the government projects, but their contribution was not being recognised. Thus, nobody wants to work up to the government work labyrinth, and thus the state of state of the profession is at a standstill. If we don't collaborate, then what is the point of even teaching these social and cultural sustainability? I can teach them sociological doctrines but they will not be practicing it anyhow. We must collaborate with the government bodies to let the student use this knowledge, and the architectural education in India must work in tandem with the government. At this point of time, the opportunities for architectural education in India is huge. This kind of opportunity has not been created in a long time. The biggest example for socio-cultural project is clean Ganga. It was in filth for years, and it is creating jobs for people. As a professional this looks good. If the students are getting exposure in one of these missions, it would only help them. We are not taught the skill sets; we are taught a bit of everything. The course can be completed in 3 years instead of 5. The students after that can still be monitored by the professors, but they can work and collaborate, and then they can be offered their degree. The students after 5 years are still confused what to do, the clarity of choices comes only after working. Architectural education should work like a working office, only then it can evolve. Sitting in the studio for 5 years will not help the students.

12. **As per the literature review that has been done, there remains a considerable gap between what the students learn in theory and how much of it they apply in their design. How do we ensure that the topic of social and cultural sustainability will not fall into this gap?**

- We are learning the theory, and we are going to practice, the only gap that there is today is that there is no flexibility in architectural curriculum, it is all very regimental. In my university where I teach, it is primarily based on the US style of teaching. There onwards it is a choice-based learning. A pathway is very important. After the first year if the student is being exposed to a lot of seminars, then it would help over the 5 years. The students need

to be exposed to many things. If I am entrusted in the idea of sociology, conservation, construction, engineering, then there should be a pathway definition, then there will not be any gaps. Now the students are not being taught the architectural link to sociology. Through a pathway of next four years, at least they can be lead through that pathway within their projects. They might not be interested in structures, and after studying structures for 4 years, in the profession, they realise they do not need it, there are structural engineers who are trained to do that very job. The clear idea of a pathway in the preliminary years is very important. The students need to be provided with informed choices.

Decolonisation of Architectural Education in India

13. **The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Does the present curriculum need a cleansing in the form of decolonisation? (Probe – architectural identity)**

- It is not about colonial or non-colonial. The premiere idea is to be receptive of all the ideas that is happening. The idea that is very clearly stated, is that think global, do local. We should be okay to the reception of all ideas, but at the same time must think if those ideas are fit for us or not. This could help move forward the rigorous profession that we have right now. The idea of sanitising the education because it is colonial does not fit my mind. There is nothing original, even the constitution of India is borrowed. People working abroad take our public policies as good examples, not talking about the execution. Even the colonised ideas must have originated somewhere, we just need to choose what fits best for our system. We should not follow anything blindly. If decolonisation or sanitization had to be done, it had to be done post-independence immediately, not now through education.

14. **Do you think decolonisation of architectural education will help in promotion of the topic of social and cultural sustainability in terms of the present conditions of India?**

- I don't see it in a different light, it has to be taught and taken into everything that we are doing. I don't think decolonisation would help it much. All these things should simply be taught very clearly in architectural education. This deals with behavioural change, and that goes beyond the scope of architectural education. If the students don't work on social grounds with the government, that will not come anyway.

Role of Council of Architecture

15. **Do you think inclusion of this topic in programs of Council of Architecture Training and Research Centre will help create awareness amongst the professional architects and the academicians of India?**

- It should be more hands-on training. People may be very research oriented, or very much interested in theories. COATRC should give out categories, and then people would choose according to their interests. IT should be very systematic and methodical, not dishing it out randomly. It should be more student related than council related. It is not a very administrative thought process.

16. **The subjects taught in the bachelor degree program, are currently divided into the following categories: Professional core, Building Services and Applied Engineering,**

Professional Elective, Skill Enhancement Courses and Professional Ability Enhancement Compulsory Courses. The topic Social and Cultural sustainability can be vaguely found under the category of Professional Elective. Do you think the topic should have a separate category to itself, or be categorised under any other present categories?

- It should be in every category. It cannot be different. In the preliminary years we were taught how to construct everything that we designed, building construction was going side by side with everything, same stands for this topic. It should come from a liberal stand point. The university should work along with the council to integrate this topic in each and every category. The idea of electives should be pathway dependant as mentioned in the last answer.

17. **Is there any additional approach that you would like to add for the promotion of the topic?**

Appendix 10.2: Interview Transcription - AP 2

1. **Please mention your name, designation and the name of the institute you work in.**

- AP - 2, Principal and HRAD, S.K. Das Associate Architects, Dehradun.

Social and Cultural Responsibility of an Architect

2. **What should be the social standpoint of a professional architect? (Probe – Social and Cultural responsibility)**

- You have to go back to India's independence, the breakaway from the colonial rule. India followed a path of democracy that aims at inclusivity for all sects of the society. So, at the fundamental level, the architects cannot detach themselves from the social and cultural issues. During the colonial times, draftsmen were prepared for the key projects, while rest were public work. By the time the colonisers left, the public works were strong. As for the standpoints of the architects, in a society that is vastly unequal, architects must understand equity. In the post-colonial era, Le Corbusier and other architects created far better ecological context. That should have multiplied later, but that did not happen. Architects who learnt these values, they have learnt it for themselves, they never addressed the social issues, it remains neglected. Initially the focus was to modernise. The Nehruvian thinking did not apply to architecture. They never applied to egalitarian thinking. In it, there were stumbling blocks, like looking at architecture as merely building blocks. Architects like Kanvinde and Habib Rehman engaged in public works. Bauhaus thinking could have thrived in India. Cities like Chandigarh and Bhubaneswar have got sectors and units, and climatologically they are perfect, but not socially or culturally. The policies that should have worked on this, have simply boiled down to handling emergencies. In India, cultural responsibility deals with religion, caste, etc. In that aspect, no school has taught architectural development.

3. **The United Nations has set up 17 Sustainable Development goals, which include No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Growth and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life below Water, Life On Land, Peace Justice and Strong Institutions, and Partnership for the Goals. Are the 17 UNSDG applicable to the socio-cultural positions of India pertaining to architecture?**

- Not at all. The SDGs are to be achieved by 2030. From the inception, they seemed impossible to achieve, but created a fake optimism. Over the time, poverty and inequality has increased. In architecture the focus is on material and products, and as a result horrendous glass boxes have gold rating. Where is the sustainable development goal in a country where a hut is collapsing but has a solar panel on its roof? Real sustainable development practices are disappearing. In the panning of Otto Koenisbergur, in Bhubaneswar, every plot has trees of fruits. Down the decades that is still helping in keeping the city green, providing shade and fruits to people. The word citizen has got replaced by 'stakeholders' over the last 50 years. In a country where 80% of the population has not got income worth paying taxes for, how can they be included as stakeholders? Inequality and discrimination start there. Housing for LIG or EWS is made to include this sector of the population into formal housing. Just as affordable housing building was started, government

washed their hands off it and moved forward into globalisation. The west has convinced all to fall in line with their thought of globalisation.

4. **The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas. In accordance to social and cultural sustainability, is there presently a common ground between the area of concern and the area of influence for the architects, pertaining to the present socio-cultural conditions of India?**

- Huge amount of money is spent on private residences. This chance at the same time has been created for architects, but is a failure on part of the government and the profession.

5. **Architects in India are mostly commissioned by the government, or by the private owners of offices, commercial places, residences and condominiums. Hiring architects is considered to be an elite facility. Is the dominant culture of private ownership and gated communities disrupting the social role and responsibilities of the architects?**

- Yes. This explains the funding question that I am trying to explore. The idea of being an elite facility is a general misunderstanding. Like the train being the only vehicle that carries all sects of people at the same time, the profession of architecture should do the same. For all architects, the social, political and personal thoughts should be congruous. At the different levels of hierarchy, people mostly understand money and hardly anything else. “You can either make money, or sense. Not both.” – Buckminster Fueller. The private sectors are not monoliths.

6. **What are your reflections on how the topic of social and cultural sustainability is being dealt with in the curriculums of the global schools of architecture?**

- It is extremely varied. In some schools, sustainability, before the SDGs, came as a package solution, they took it and engaged it in making the cities. The society today is largely urban. Architecture is about making places with buildings and it is at loggerheads with planning. The global schools are more open to looking at the globe and propagating global knowledge, but the differences are huge. From Indonesia to Sweden, the cities, societies and every aspect are largely different, and that has to be considered.

<u>Architectural Education in India</u>

7. **What is your opinion of the evolution of architectural curriculum in India, starting from the colonial period to the present date? (Probe – Adequate changes in accordance to change in needs of users)**

- There has been changes, but they are not at par with the changing needs. In colonial times the focus on draftsman ship, and they had focussed on making draftsmen. Later, the architects learnt to detail the drawings. They took a definitive direction and were clear headed. After them, the modern architects came in thinking in Bauhaus style and like the western democratic. The buildings in India, Yugoslavia, and Algeria became similar. Even the political trust was rooted in modernism. In the 60s, the architects broke away and created their own forms, rather than follow the path of Corbusier and likes. Buildings like that of SPA Delhi came up by architects like Habib Rehman, that were cost effective modern architecture, but with a modest expression. Architecture was modern and democratic. In the early 70s, schools reoriented their curriculum with this school of thinking. In the 80s, the schools of architecture got shifted by free market, and that was reflected in the

buildings. In the 90s, the digital industries came in. The architectural education moved in a superficial direction. COA is currently following that track. Architecture has taken a back seat and superficiality has come to the forefront. Architecture has been reduced to creating facades, from the excitement of creating a space. COA is disoriented. It follows the ides' one size fits all'.

8. **The present curriculum, as set by the council of Architecture, does it help in gaining perspective of the social role of a professional architect for a student?**

- Not at all. COA is not that important. All chief architects from all the seats are represented in the council, however they are decadent and not worthy of the positions. In an entire body that regulates the profession, there is no inspiration to be drawn, people just use the institution to get registered as professionals. COA has been involved in the architectural education, but never got into the intricacies of the matter. There are competitions held by COA about bus stations, in highways, which is an obsolete idea in itself, as buses don't board passengers from highways in India, hence the competition has no value. There is a bankruptcy in understanding on the part of COA, so what they are teaching is questionable.

9. **Over the time, since the very beginning, has architectural education in India evolved enough to stay at par with the present needs of the users? (Probe - suggested improvements)**

- The present state of education is completely oblivious to the present needs. There is a false complacency where the poor is becoming less and less visible. The focus is on the speed of improvement and not on the need. The poor is becoming out of sight and thus out of mind.

10. **Is there any scope to accommodate the 17 UNSDG, within the architectural curriculum in India, for better social and cultural sustainability awareness among the students?**

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11. **Presently, Social and Cultural Sustainability is being taught in only 17 institutes in India among the top 100 ranking institutes. Many institutes amongst these 17 have the subject as an elective, the choice of which lies in the availability of a faculty member who specialises in this topic. Apart from the sparse elective subjects, how can social and cultural sustainability as a subject, be included in the architectural education in India? (Probe – upgrade the present curriculum)**

- The NGOs are the local supporters of SDGs and are mobilised to propagate them. Architecture today does not include the community at large, it focuses on three new terms – liveability, walkability and place making. People are making places; coloured pains are replacing cobbled stones. In this, the gain is for the paint companies. They are not durable, robust or sustainable. Schools of architecture are investing themselves in this place-making and are championing at it. They don't question how a place should be made, or for whom. Today nobody questions these problems.
- Sabarmati riverfront – It remained dry for 9 months. The bed was used by public, it integrated both sides of the city, where markets took place. They moved water away from farmers and brought it there, to create a waterfront like Paris.

12. **As per the literature review that has been done, there remains a considerable gap between what the students learn in theory and how much of it they apply in their design. How do we ensure that the topic of social and cultural sustainability will not fall into this gap?**

- Schools should look more into theories. They can bring the applied knowledge through external faculties. It is more important to make the students aware, then they should

discern accordingly. The faculty members are not aware of the significance. If the schools do not teach theory, they simply transform into training centres. The elective subjects rely on availability of resources. This problem needs a bottom-line.

Decolonisation of Architectural Education in India

13. **The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Does the present curriculum need a cleansing in the form of decolonisation? (Probe – architectural identity)**

- Absolutely. Architects in profession are not aware of this term.

14. **Do you think decolonisation of architectural education will help in promotion of the topic of social and cultural sustainability in terms of the present conditions of India?**

- Yes. Now we are in different era. We need to look at decolonisation through globalisation. Colonisation is intellectual – the role of digital technology, social media, and applied knowledge are different tools of colonisation. Through them we are killing possibilities. The economy needs to be controlled. The digital media should be made available widely. The new colonialism is about securitisation and control, and that is being appropriated politically through businesses.

Role of Council of Architecture

15. **Do you think inclusion of this topic in programs of Council of Architecture Training and Research Centre will help create awareness amongst the professional architects and the academicians of India?**

- The role of council is to build a new paradigm, where the architects don't just remain as service providers. Architects have to be educated as such where their social role is widely decimated. The president of council drives the minds of the council and thus, the architects around the nation, so it is a great responsibility. We cannot insult our own profession.

16. **The subjects taught in the bachelor degree program, are currently divided into the following categories: Professional core, Building Services and Applied Engineering, Professional Elective, Skill Enhancement Courses and Professional Ability Enhancement Compulsory Courses. The topic Social and Cultural sustainability can be vaguely found under the category of Professional Elective. Do you think the topic should have a separate category to itself, or be categorised under any other present categories?**
17. **Is there any additional approach that you would like to add for the promotion of the topic?**

Appendix 11.1: Interview Transcription - PGO 1

1. **Please mention your name, designation and the name of the institute you work in.**

- PGO – 1, Practitioner, State nominee to the Council of Architecture, and the Architect member of statutory committees of state government.

<u>Social and Cultural Responsibility of an Architect</u>

2. What should be the social standpoint of a professional architect?

(Probe – Social and Cultural responsibility)

- Along with the shaping of built environment, an architect should be aware of his social standpoints like –
  - Designing spaces considering the Quality of life and well-being of the people,
  - Creating Socially inclusive and barrier friendly designs,
  - Creating spaces of economic vitality and also environmentally friendly,
  - Respecting the cultural contexts of the proposed project area – adapting to the norms, values, beliefs, traditions, rituals etc.

Thus, architects should also be aware of a subtle knowledge of the people, their everyday lives and activities that define or regulate the social and cultural sustainability principles.

3. The United Nations has set up 17 Sustainable Development goals, which include No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Growth and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life below Water, Life On Land, Peace Justice and Strong Institutions, and Partnership for the Goals. Are the 17 UNSDG applicable to the socio-cultural positions of India pertaining to architecture?

- I believe 17 UNSDGs are applicable to the socio-cultural positions of India pertaining to Architecture. Right now, if you see SDG Index 2022, India ranks 121 out of 163 countries. In fact, the rank has declined from 117 to 121 since last year. It is crucial that architects too need to be critical and thoughtful about how they can contribute to achieve the UNSDGs. Because, significant research is going on around the social and cultural sustainability practices in India such as - promoting the use of blue-green infrastructures along with grey, redesigning streetscapes, retrofitting and redevelopment schemes and programs, slum improvement schemes, affordable and low-cost housing programs, developing thermal comfort studies and creating microclimate, creating gender friendly, environmental friendly, barrier free, equitable, socially inclusive public spaces and many more. However, there needs further assimilation of the applicability of the 17 UNSDG with the architectural domain in India through a socio-cultural lens.

4. The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine,

people, who are living in poverty, facing discriminations based on social and cultural stigmas. In accordance to social and cultural sustainability, is there presently a common ground between the area of concern and the area of influence for the architects, pertaining to the present socio-cultural conditions of India?

- I can recollect one great talk at UNSW by 2016 Pritzker Prize-winner architect Alejandro Aravena who said – "The problems in the world are poverty, inequality, segregation…. Architects have the skills to deal with these issues if they listen to all the forces at play." He further said that architectural fraternity can aim to alleviate poverty and eliminate slums using a participatory approach engaging local communities in the early stages of the design process. That would have been essentially the social and cultural sustainability practice to exercise. Presently, there is a common ground between the area of concern and the area of influence for the architects like you mentioned. There are schemes for low-cost housing, affordable housing, schemes for slum development, infrastructural improvements etc. It is really important to address the pressing global need for social housing where a big chunk of population lives below poverty line. And I think architects should be aware of their responsibilities to carefully consider the dynamics of the people and the place, their cultural identities, values, norms that shape and regulate their way of lives and provide creative and feasible solutions.

5. Architects in India are mostly commissioned by the government, or by the private owners of offices, commercial places, residences and condominiums. Hiring architects is considered to be an elite facility. Is the dominant culture of private ownership and gated communities disrupting the social role and responsibilities of the architects?

- I would say that the statement you used that 'hiring architects is considered to be an elite facility' is partially true. But there are always different sides to the society. There is both the capitalistic market-oriented approach that is regulated by private ownerships, gated communities promoting commercial places, residences and condominiums. While on the other hand, there is communitarian approach as well – where significant emphasis is laid on the community development projects. You can see the works like Aranya Housing; Artist village, Belapur; Vikas Community housing, Auroville; Sham-e-Sharhad Village resort, Gujarat; MAC centre etc. I believe that even if there is a dominant culture of private ownership, architects need to incline more towards the socially and culturally sustainable community-oriented projects understanding people and the context.

6. What are your reflections on how the topic of social and cultural sustainability is being dealt with in the curriculums of the global schools of architecture?

- In 2015, United Nations considered placing 'Culture' at the heart of development policies to ensure human-centric, equitable, inclusive, safe and sustainable cities promoting economic growth. Besides, globally, Sustainability studies have become very prominent and demand significant contribution from both theory and practice. Different schools of architecture in their academic curriculum promote studies on built environment, urban density, heritage and culture preservation, urban quality of life, health and well-being studies, people-centric cities. They try to address contemporary issues like the need for carbon-neutral

communities, smart technologies and environmental wellness on multiple scales like regional, city and even neighbourhood in response to rapid urbanisation and climate change.

Architectural Education in India

7. What is your opinion of the evolution of architectural curriculum in India, starting from the colonial period to the present date? (Probe – Adequate changes in accordance to change in needs of users)

- Architectural curriculum in India always tried to cover history as well as contemporary aspects of architecture. Because, many a times, historical elements are often re-introduced, redesigned and reincorporated in the contemporary art forms. The challenge is actually the changing user needs and experiences. A major factor is probably the socio-economic and demographic characteristics, along with the evolving user choices and lifestyle preferences which perhaps shape the social and cultural sustainability needs. And that's why, I believe, it's necessary to periodically modify the architectural curriculum with the changing social and temporal demands.

8. The present curriculum, as set by the council of Architecture, does it help in gaining perspective of the social role of a professional architect for a student?

- Yes, definitely. In fact, in architectural design studios, the professors mostly encourage students to gain a holistic understanding in terms of both form and function. It is highly important to note who are the users, what are their expectations, how to enhance their spatial experiences. That will influence you to design the quality of spaces in demand. That is the social role of a professional architect – to design spaces that will enhance the quality of life of the people, evoke a sense of place, belonging and inclusivity.

9. Over the time, since the very beginning, has architectural education in India evolved enough to stay at par with the present needs of the users? (Probe – suggested improvements)

- Probably not much. May be, there is still a persisting gap between architectural theory and practice. May be, it will be better if students are equipped enough with tools, techniques and practical solutions to deal with real life problems and issues plaguing human society like homelessness, poverty, lack of job opportunities and housing, natural hazards like floods, droughts etc.

10. Is there any scope to accommodate the 17 UNSDG, within the architectural curriculum in India, for better social and cultural sustainability awareness among the students?

- In the architectural curriculum, as prepared by Council of Architecture, the 17 UNSDGs are already addressed in bits and pieces through various subject heads, say – Architectural Design, Human Settlements Planning, Urban design, Housing, History of Architecture and culture, Building materials and construction, Climatology, Vernacular architecture, Contemporary processes in architecture, Green buildings, Sustainable cities and

communities, Earthquake resistant architecture, Architectural Conservation, etc. I believe, these tend to evoke a social and cultural sustainability awareness among students.

11. Presently, Social and Cultural Sustainability is being taught in only 17 institutes in India among the top 100 ranking institutes. Many institutes amongst these 17 have the subject as an elective, the choice of which lies in the availability of a faculty member who specialises in this topic. Apart from the sparse elective subjects, how can social and cultural sustainability as a subject, be included in the architectural education in India? (Probe – upgrade the present curriculum)

- Like I said in the previous answer, the social and cultural sustainability are always addressed in bits and pieces through most of the subjects. And yes, many of them are elective courses. So, definitely not everyone will have access to the courses. So, probably it will be a good initiative to compose and integrate all of them and develop a compact and holistic understanding through one particular subject named as Social and Cultural Sustainability.

12. As per the literature review that has been done, there remains a considerable gap between what the students learn in theory and how much of it they apply in their design. How do we ensure that the topic of social and cultural sustainability will not fall into this gap?

- This is a general conflict across global schools of architecture where there is a conscious effort going on to bridge the gap between what is learnt in theory and how to apply them in practical situations. Like I mentioned about Alejandro Aravena – how he emphasized public participation in the early phase of design process. Besides, if you carefully observe the works of Charles Correa, BV Doshi – you'll see the sense of community evolved through and involved in their designs and physical manifestations followed by different intervening schemes. So, definitely, I can say that we can apply theory and practice in terms of social and cultural sustainability – we just have to be aware of what materials we are using, how much sustainable they are, how sustainable and eco-friendly are the construction techniques, how much the built forms are functioning and culturally adaptable. Probably then we can ensure that the topic of social and cultural sustainability won't fall into this gap.

<u>Decolonisation of Architectural Education in India</u>

13. The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Does the present curriculum need a cleansing in the form of decolonisation?

(Probe – architectural identity)

- The world is undergoing a gradual shift through urbanization, privatization, globalization. There are transnational exchanges going on at all levels. If you see the contemporary sociological works like Saskia Sassen's 'Global City' you'll see how there is a constant flow of

information and capital across transnational boundaries and networks of trade and finance boosting the global economy. And surprisingly, global and local are tremendously integrated, interconnected and interdependent. So, I would suggest that we need as much as West-centric ideas as much as indigenous knowledge. Besides, our colonial history of Europe-centred architectural lens has influenced and become an intrinsic part of our traditional indigenous knowledge base. So, to cope with the urbanization challenges, sustainability goals need to be achieved through a synthesized comprehensive understanding of Contemporary World Architecture. So, it's not just decolonization but an integrated and comprehensive architectural curriculum that is needed across all schools of architecture.

14. Do you think decolonisation of architectural education will help in promotion of the topic of social and cultural sustainability in terms of the present conditions of India?

- Well, India is a developing country with high overarching population density and heterogeneity. You will also find strong local networks of urban informality. So, probably, in a way, decolonization will help you explore and associate with the local, native, traditional or the inherent roots of vernacularism. And like I already mentioned in the beginning, culture lies at the heart of sustainability development framework. So, I suppose decolonization of architectural education will help comprehend the traditional architectural knowledge system of India, thus promoting the social and cultural sustainability.

<u>Role of Council of Architecture</u>

15. Do you think inclusion of this topic in programs of Council of Architecture Training and Research Centre will help create awareness amongst the professional architects and the academicians of India?

- Yes, definitely. But again, a conscious effort is required to apply the academic knowledge gained through this topic into professional practice. Because, it's high time, architects, urban designers, planners, policymakers need to carve out strategic interventions to meet the growing urban challenges.

16. The subjects taught in the bachelor degree program, are currently divided into the following categories: Professional core, Building Services and Applied Engineering, Professional Elective, Skill Enhancement Courses and Professional Ability Enhancement Compulsory Courses. The topic Social and Cultural sustainability can be vaguely found under the category of Professional Elective. Do you think the topic should have a separate category to itself, or be categorised under any other present categories?

- Like I said, the topic is already covered in bits and pieces across multiple categories as framed by Council of Architecture. And, mostly, like you said again, it falls under the category of Professional Elective. So, may be, we can reorganize and reallocate it under compulsory sections.

17. Is there any additional approach that you would like to add for the promotion of the topic?

- You should try to emphasize on the social and cultural sustainability practices, how one can apply it. It is important to note what are the outcomes after application, how sustainable, accessible and affordable they are. Probably, that’s the best way to promote your topic as far as I can think of.

Appendix 11.2: Interview Transcription - PGO 2

1. **Please mention your name, designation and the name of the institute you work in.**

- PGO - 2, Professor, IIEST, state government office holder.

<u>Social and Cultural Responsibility of an Architect</u>

2. **What should be the social standpoint of a professional architect? (Probe – Social and Cultural responsibility)**

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3. **The United Nations has set up 17 Sustainable Development goals, which include No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Gender Equality, Clean Water and Sanitation, Affordable and Clean Energy, Decent Growth and Economic Growth, Industry, Innovation and Infrastructure, Reduced Inequalities, Sustainable Cities and Communities, Responsible Consumption and Production, Climate Action, Life below Water, Life On Land, Peace Justice and Strong Institutions, and Partnership for the Goals. Are the 17 UNSDG applicable to the socio-cultural positions of India pertaining to architecture?**
4. **The area of influence for the architects in India are the private ownerships, public domains, and the government projects. The area of concern on the other hand are the people, who are in the need of proper infrastructure, shelter, education, food, medicine, people, who are living in poverty, facing discriminations based on social and cultural stigmas. In accordance to social and cultural sustainability, is there presently a common ground between the area of concern and the area of influence for the architects, pertaining to the present socio-cultural conditions of India?**
5. **Architects in India are mostly commissioned by the government, or by the private owners of offices, commercial places, residences and condominiums. Hiring architects is considered to be an elite facility. Is the dominant culture of private ownership and gated communities disrupting the social role and responsibilities of the architects?**
6. **What are your reflections on how the topic of social and cultural sustainability is being dealt with in the curriculums of the global schools of architecture?**

<u>Architectural Education in India</u>

7. **What is your opinion of the evolution of architectural curriculum in India, starting from the colonial period to the present date? (Probe – Adequate changes in accordance to change in needs of users)**
8. **The present curriculum, as set by the council of Architecture, does it help in gaining perspective of the social role of a professional architect for a student?**
9. **Over the time, since the very beginning, has architectural education in India evolved enough to stay at par with the present needs of the users? (Probe - suggested improvements)**
10. **Is there any scope to accommodate the 17 UNSDG, within the architectural curriculum in India, for better social and cultural sustainability awareness among the students?**
11. **Presently, Social and Cultural Sustainability is being taught in only 17 institutes in India among the top 100 ranking institutes. Many institutes amongst these 17 have the subject as an elective, the choice of which lies in the availability of a faculty member who specialises in this topic. Apart from the sparse elective subjects, how can social and**

cultural sustainability as a subject, be included in the architectural education in India? (Probe – upgrade the present curriculum)

12. **As per the literature review that has been done, there remains a considerable gap between what the students learn in theory and how much of it they apply in their design. How do we ensure that the topic of social and cultural sustainability will not fall into this gap?**

Decolonisation of Architectural Education in India

13. **The present architectural curriculum, as approved by the Council of Architecture follows many topics which are West-centric or follows the Western ideas, as opposed to the local ideas and needs. Decolonisation of architectural education is understood as a process in which we can rethink, reframe, and reconstruct the curricula that preserve the Europe-centred colonial lens. Does the present curriculum need a cleansing in the form of decolonisation? (Probe – architectural identity)**
14. **Do you think decolonisation of architectural education will help in promotion of the topic of social and cultural sustainability in terms of the present conditions of India?**

Role of Council of Architecture

15. **Do you think inclusion of this topic in programs of Council of Architecture Training and Research Centre will help create awareness amongst the professional architects and the academicians of India?**
16. **The subjects taught in the bachelor degree program, are currently divided into the following categories: Professional core, Building Services and Applied Engineering, Professional Elective, Skill Enhancement Courses and Professional Ability Enhancement Compulsory Courses. The topic Social and Cultural sustainability can be vaguely found under the category of Professional Elective. Do you think the topic should have a separate category to itself, or be categorised under any other present categories?**
17. **Is there any additional approach that you would like to add for the promotion of the topic?**

After India became independent, and then almost all the architectural education in the institutes started. There are huge changes happening in the society, particularly, prior to globalisation one kind of changes happened, and after globalisation other kind of changes. Unlike what is happening in the global north, or US. So, the Indian society, though part of this is being integral to the global market, and also, they have access to the technology, particularly the information and communication technology and their aspirations are also changing, so we have a substantial amount of new middle class that is obvious. But even after then we have 66% of the people living in the rural areas and they are dependent on, I will not say agriculture, but more on the informal economy. It is more of an informal economy which is quite uncertain, in terms of what we are seeing since the last economic slow-down, I should not say last 2 years, but probably 2008 onwards, when the economic slow-down started. That had a huge impact on the urban economy, and the peri-urban economy, also on the rural economy. My stand on this issue is that our architectural education is not really taking into account these kinds of transformations, what is happening in the society. I know in many of the institutes, the kind of focus on the courses both in the history of architecture, or contemporary architecture, or the methods and

materials of construction, mostly the theory subjects. Theory subjects that are very bookish and even if there is some amount of relationship with the practice but that is mostly of a practice which is in the domain of formal sector of the economy, and it is the kind of culture and behaviour associated with these. But the kind of changes, the various layers in the society and their context, or conditions, or their kind of practices in the housing practices or the material practices and all, except one or two elective courses, those are not really an integral part of the architectural course, but even in the discussion. In the discussion the professional boards we are associated with, the council of architecture. COA I am not very much aware what they are doing. That is quite in a sample in the last 10 years, because there are various internal issues. The main professional body that is institute of architects, I do not see much of discussion or brainstorming on the social and cultural issues. There may be discussion on projects and all, but hardly there is any kind of interaction on these two dimensions, that is social and cultural aspects of architecture. Mostly these revolve around projects and buildings, building typologies, like hospitality, the discussions are more around the kind of main stream buildings, what we see around us, hardly there is any discussion on the kind of aspirations, the cultural transformation, impact of technology on the everyday practices of the people. Hardly I see any discussion even in the regular professional discussions, in the professional bodies. That is the kind of situation in the practice.

I would not dwell much upon what should be done. I would like to convert this to what I do, because I am teaching architectural design, and housing for last 30 years. What I do in the 4th year level, I take the design in the 7th or 8th semester level and they normally do in one semester, public building, mostly it is a public space, some kind of social space like a shopping mall, or a cultural hub, or a commercial area and also housing. So, I personally do or my colleagues who are associated with me in the design school, we give a kind of project which has some kind of a design brief, which might have been taken from some place if it is of housing. It is kind of an open- ended brief. Some broad areas are given. In housing one of the problems is, it is very standardised. Generally, it is real estate driven, so urban housing is very standardised, that is one problem. Even if I or my group of fellow colleagues who guide the studio, even if we become too much experimental in designing the brief, leaving it to the students to actually develop the brief, not just to follow blindly, some of the very messy points that are given to them, for example what should be the housing mix? In the context of covid now we have incorporated something new, even if we are telling them to design the house, one section has to be for the migrant workers, who are coming from the rural areas. We try to tell the students that you first narrate a kind of a story so there should be a kind of a background story, behind any kind of project. That is the first priority. The story of who are the people, what is their background. Generally, that is not at all being clear in any mass housing project. We tell them to develop the brief, based on a very basic outline that we give them. Then there are supposed to make their own story, narrative the kind of people they think will accommodate. The people are coming from Sundarbans, the climate change hotspot of Bengal, and lot of them are coming to the suburbs of Kolkata. If those people come, then obviously the housing in which they are accommodated, that will have certain design brief should incorporate the requirements, the aspirations, or the kind of expectations they have from the housing or where from they leave and where from they settle. The people migrate from the northern part or the western part of Bengal, then obviously the issues will change. They will not only change in terms of space, because space

will have a reflection of the occupation where they are and what their earlier occupation, and what is the type of shift happening. If they settle for the first time, then must be having some linkage with the earlier occupation as well. We try to tell the students to make the brief more inclusive in terms of culture, occupation, materiality. Material is a big issue. Normally in housing, the materials have become so standardised and codified. That is a big problem. Material actually imposes lot of restrictions and open up lot of opportunities as well, in terms of the options. That is how we make the students aware about these societal dynamics. Change is happening in the city; Kolkata is a big metropolitan city. There are so many small cities within the big city. If we study the housing typology in the different areas, we see enormous amount of diversity. We give them projects to study the housing typologies and its transformation, and that is actually part of the housing theory course, which I also teach. In that way we try to include the social and cultural transformational aspect. It is actually very much dynamic. And the dynamics are very fast changing, and the complexities are becoming more and more diverse. That is a big challenge of teaching this subject. Design of housing is the area is where most of the architects think that they cannot do much because they do not know the clients. I try to make the subject more contextual so that the students can go deeper into the study and analysis and develop the brief fast, and then they should think about what should be the physical manifestation of the building. The building will come much later. We personally tell them, that first to think about the community, because that is what is missing in most of our discussion in architecture that the community is missing. Everything has become much individualised. I do not have much idea about what should be the ideal. I personally go by my own understanding and I feel that these last 2 years, the centrality of community has become more visible in the minds of the people, earlier people were thinking that they can thrive individually. Now people are gradually understanding that they cannot survive like this, forget about thriving. Community is taking a much more central place, and I personally feel that should be brought in the mainstream discussion of architecture and also in practice and theory. Community is the smallest unit of the society.

Curricula change in 30 years:

Changes have happened, but certainly not in the way ideally it should have been. Mostly the changes have been incorporated, the mainstream discussion points are energy, prefabrication, and these areas. On the other way there is also a discussion on conservation. These are the few emerging areas that have come to the central stage of curricular changes. These are the emerging topics. We have introduced course on urban conservation. A lot of new courses have come in these areas. Construction technologies have also advanced. I do not know what other institutes are doing, but certainly I have seen some of the curriculum and syllabus of some of the private institutes, and they are doing very good like Kamla Raheja institute in Dubai, CEPT in Ahmedabad. They are doing good in terms of social and cultural sustainability. I see their design juries and also their thesis juries. I see a lot of interest among the students and their works, and that they have been oriented much better to these topics and their previous projects as well show it. They do a lot of seminars. Sometimes there is no particular course, a lot of times there are many seminar topics in the subjects, in 3rd and 4th year, along with some electives. In our department we have floated electives on vernacular architecture, and now that is actually running for last 5 years. In our institute we are constantly we are changing our curriculum, every 3 years. A lot of new

faculties have joined and they are contributing a lot, and giving good input for these changes. We don't want the students to be exposed to the traditional vernacular only, but how can that be interpreted in the modern times, that is more and more important. The principles are more important rather than the typologies of the buildings. The principles would actually help the students to understand how that could be integrated with the contemporary practice. We have modified that and we are planning to convert the course into an elective of sustainable architecture where vernacular architecture would be one section. There are good number of architects working in India and abroad as well, both in developed parts and developing parts. There are the Pritzker winners. We try to include their works so that the students know what approach an architect has to adapt and adopt to make it relevant for the social and cultural dynamics. There is a role for both the new materials and the old. But probably customising the materials, the new ones that we have now, along with the software, and integrating them in the evolving social and cultural practices, that dialog is very important and that needs to be established. Nothing is standardised, and nothing should be. Because of the demand, the students are also demanding. The teachers are thinking when they go the practice, they do higher studies, they say that the curriculum is not having enough opportunity, which exposes them to this kind of changes in the outside world. We also get lot of feedback and we take them, about what should be the new ideas and approaches that should be incorporated. That is gaining more and more ground.

Electives are subject to availability of resources:

It is true. I know that a lot of subjects that we teach and change because we have that resource and those faculty members, who can teach sustainable architecture. That certainly is a big issue and that is where the main challenge lies. Most of the private institutes cannot teach conservation or energy, I really have no answer to this. Only thing that I can say is give the students projects, where both the teacher and the students learn. We give more such topics where the students would be exposed to these situations. This could be a good laboratory. I n architecture, laboratory is the city or the village or the community. We learn from them. This is the easiest way to bridge the gap.

Decolonisation:

It is a disturbing issue, which can be discussed at length. Owing to our thought process and our whole system of professional upbringing, we really have not developed and based ourselves on our own strength. Though we have been independent for the past 70 years, we still do not have much of our identity. I will say we have been more affected by a standardisation, not decolonisation. We have been affected by the hangover of the standards of norms and technology. Nothing has been contextualised according to situation. We hardly have any code on mud, but many architects, including myself, work on stabilised mud blocks in some of my projects. There are certain institutes that are doing a lot, but there is a huge resistance. The situation is dominated by civil engineering and the architects cannot think about this, unless there is an economisation of code. This is completely determined by the civil engineering profession. Now one or two architects being incorporated in this, but their voice is unheard, and that is a big challenge. I hope more and more architects practice with these alternative technologies and approaches. Probably in

another 30 years, we will be able to decolonise our goals, thought process and obviously the practice and curriculum also. Certainly, a lot needs to be done.

Council of Architecture:

It is not that the topic is not included in COATRC, but certainly, there is a huge resource crunch particularly the man power in many of the private institutes, and in many faraway places in the government institutes. It is not that COA is not trying. They have a regular training program. But their focus needs to be more towards this social and cultural sustainability or appropriateness. Sustainability as a term is clichéd with overuse. Even steel, glass, everything is called sustainability, because they use lesser energy. More of appropriateness should be used rather than sustainability, in architectural practice, goals and education. There is more training and capacity building required and COA can look into it.