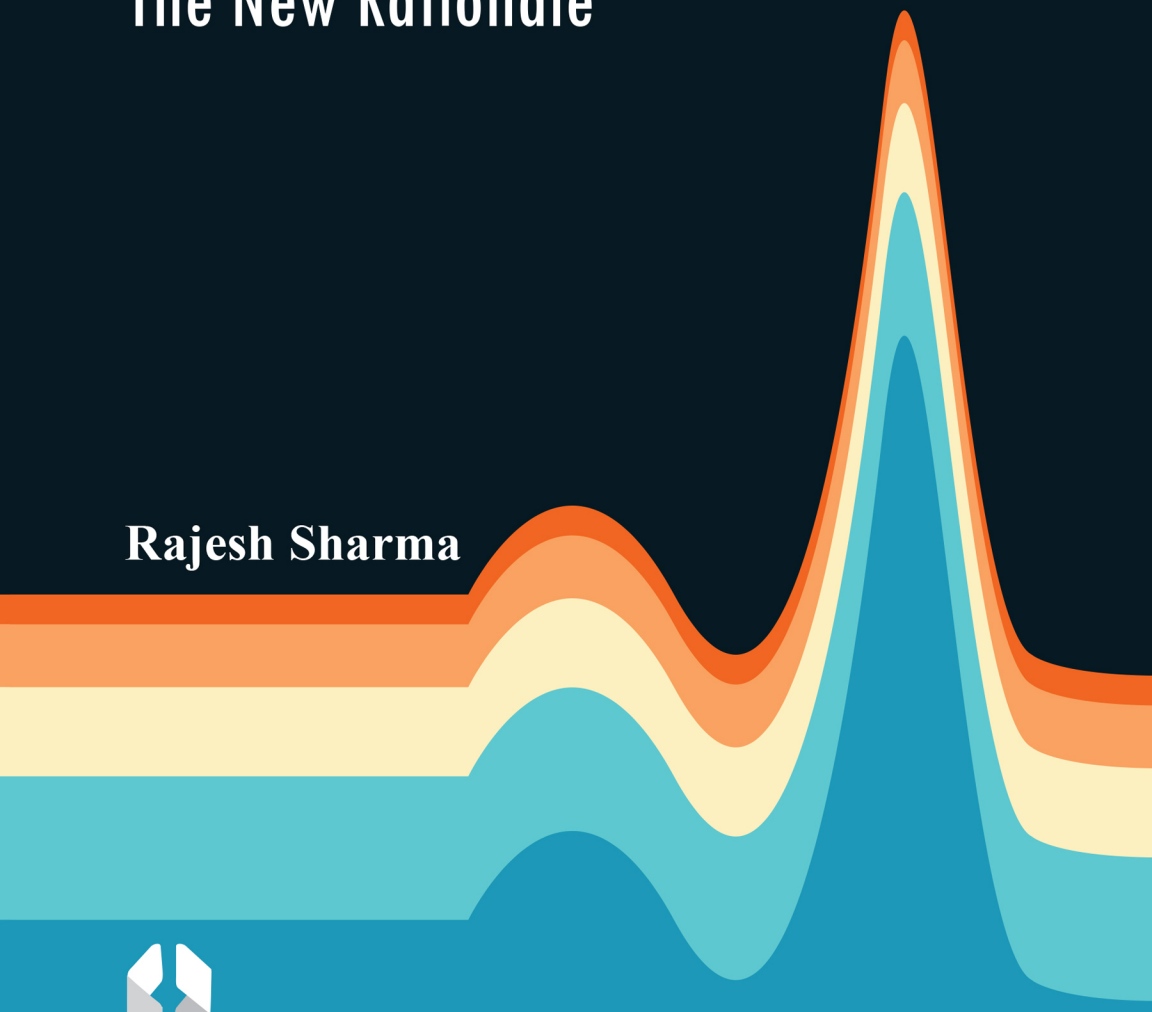
REVAMPING ARCHITECTURAL EDUCATION

The New Rationale

Rajesh Sharma



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Revamping Architectural Education - The New Rationale

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He has introduced innovative methods of teaching in architecture. In his academic career, he has been member of various boards at several universities and faculties. He is involved in active practice of Green & Sustainable Architecture. His general research interests focus on environmental systems modeling, environmental risk assessment, and modern architecture. He has extensively published his works and research in various national and international journals. He has presented papers at many conferences and has participated in a number of foreign projects. He has organized and participated in various conferences, seminars and workshops. He has made a short film at EMMRC “Indigenous Architecture of the Courtyard Houses - Walled City-Jodhpur”. He has done research on various topics like building envelopes, flexible buildings, and sustainable buildings in hot and dry climate. He has been awarded in various categories in the field of architecture like dream house award for his contributions in building house of Mr. Devendra Mathur, Mahabalipuram, Jodhpur by Aditya Ultratech., Indian Concrete Institute, Rajasthan State Centre and Certificate of merit for his contributions in making Sports Complex, Ummed Club, Jodhpur as an Outstanding Concrete Structure in 2016 by Aditya Ultratech., Indian Concrete Institute.

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FOREWORD

The book that you hold in your hands is a treasure trove of ideas to set into motion a new generation of learning for architects.

As a practitioner of this technology called architecture, I have often felt that globally it is the last field of knowledge that still displays vestiges of a holistic, renaissance attitude of mind. It has not fallen victim to our global love for economic development above all other considerations, and is not always a handmaiden of consumerist culture. Architects are somewhat obsessed with form. Despite this, or in spite of it, they combine and harmonize the field of applied arts with the sciences, the attitudes of engineering optimization with the expression of the visual arts, covering subjects as diverse as chemistry and history!

Yet, the early promises of architectural education in India seem to have run out of steam. With its origins in the Bauhaus movement in Dessau, Germany, in the Weimar Republic before the ascendancy of the Nazis, architecture underwent its last major revolution in teaching methods. The apprenticeship model which was the dominant model for architecture in medieval times was transformed into a studio model at Dessau. This was a model that we in India have adopted and which has successfully given us a generation of modern Indian architects who forged this country's identity and place on the world stage after independence. This is despite running parallel with an apprenticeship tradition that also thrives in contemporary times.

However, this modernizing method has run out of steam and is beginning to be at cross-purposes with the need of our developing society in the twenty-first century. Architects need to develop the skills of empathy and listening, those of engineering and technology, an affinity for analytical and computational algorithms and parametric systems, a deeply collaborative and interdisciplinary

attitude, understanding big data and knowledge systems, and yet continuing their quest for imbuing each of their creations with poetic charm. The beginnings of that training have to begin in architectural education, which in India has been hamstrung by a number of outdated attitudes.

India is possibly the world's largest future market for private sector architects today. If we do not adapt our architectural practices, starting with our architectural *teaching* practices, we run the clear and present danger of becoming extinct in the race for economic development and urbanization which is truly sustainable: resilient, sufficient, and equitable. In reading this little gem of a book I would urge the reader to look beyond formulae and descriptions, and generate an agenda for reform; beyond just the curriculum and towards transformation. As Indian society struggles to understand its architects, the profession owes a duty to itself to remain relevant to social needs and aspirations to create a nation of our dreams. And I hope that the beginning of that agenda can be found in the pages of this book, interpreted by every reader individually

I thank Dr Rajesh Sharma for having given me the honor of introducing his work represented in this book. Rajesh himself represents the best of interdisciplinary professionals in practice in India today – with the ability to practice design with the stone crafting skills of his native Jodhpur and marry these with the grueling needs of heading the teaching of architecture at MBM Engineering College, Jodhpur, defending a doctoral thesis, and experimenting with new ideas in architectural education.

Sanjay Prakash

New Delhi
May 28, 2017

PREFACE

Architecture is not just about four walls and a roof on it, it is more than that, It includes everything which revolves around, whether it is space, interior, exterior, material, even it includes air and surrounding too. It is an activity which has direct impact on human social, political, economic, environment and political life. Due to rapid globalization and boom in information sector the modern prospects of the architecture and design have been completely changed. Now value of architecture is well recognized and it has also become the need for common man.

Architecture education as one of the most distinctive branches of education, requires creative capabilities. The process of educating future architects around the world, there is one similarity, the overriding priority is given to design studio as the main forum of creative exploration and interaction. In response to the call to improve the quality and character of architectural education in the India and abroad with regard to formative practical experience, this book presents students, new graduates and their tutors with perhaps more meaningful opportunities to develop their architectural skills. Architectural Education has to be improved according to today's need, as we prepare to face the challenge of the new century; we need to reflect upon the issues in our context to see the development.

The author's aim for this book is to improve approach towards Architectural education for encouraging innovations in teaching methods and need to remodel the education system for the better future of Architecture profession. It mainly focuses on stimulating the students' ability to generate creatively new ideas and forms with technology and construction as an integral part for their design development. It describes need of new topics to be introduced in Architectural education system for future aspects like timeless architecture, intelligent buildings, smart materials and building automation. With this author has discussed various examples for Innovation in teaching for Architectural education.

The structure of this book will follow with a brief introduction of the main topic Architectural Education from history to present, from Indian context to world context and present day issues to what innovation teaching methods

needed and what it takes to enter into a professional world from college. Secondly, it discusses about innovative tools needed for teaching like live projects, learning strategies, case studies, exhibitions, and most importantly technology with Digital library, MOOC and Virtual campus. The survival of an architectural student depends on being able to communicate multiple drawings, graphics, images, diagrams and more in the most productive method. Each phase in design requires a clear and concise conversation between the designer and the observer. The current model in studios is based on ancient model that must be redefined and be made clearer in order to improve both learning and teaching ways. Intensive technology usage in education has been increasing in every field recently. As we all are aware, the late 20th century has been an era of revolution in information technology reflecting a new wave of scientific and technological innovation. Today's society is growing, moving, pushing and pulling in so many different directions. Society has moved from the invention of electricity in the 1800's to the invention of the iPhone, which has changed the way we use, and perceive technology today. Because of this computer based visual technology has been developing and becoming the most popular trend in the recent years. Using these software, an architecture student can perform his/her project design spending less energy time but more realistic.

Then it discusses about the how collaborative working can help students to work better, the main objectives of an architect is to strategically solve a problem in a collaborate environment. With the help of clients, contractors, engineers and other consultants; the problem becomes a creative solution that regenerates though multiple conversations. The issues of today go far beyond just designing a structure, but it involves how well these key components can communicate.

It describes about living curriculum which is an approach towards program learning experience, it is developing and growing with time therefore it promotes student competences and lifelong skills. It is a work in progress. The design of the curricula becomes emergent with the shifting paradigms driven by technological and societal transformation. With this curriculum learning becomes a journey of mind, body, and heart. This entails the day-to-day interactions among teachers, students, and a variety of topics and resources.

After that it includes the role of internship in a student's life that how it can help him or her to enhance their knowledge and skills by entering into a practical field. It includes what problems students face when they enter into a professional world, what role does internship and syllabus play in their college life and professional life. Today, Architectural students are facing problems regarding job and then when they get work, they don't know how to work, what to do? Is there any fault in them or fault in education system, There is also the question of whether architecture students are being adequately prepared for the life in professional practice. They are also not aware that after graduation there are lots of opportunities, they can opt various other fields as they don't know how to grab them. At last it discusses about the role of Regulatory bodies, they are also there to help the institutions like CoA is charged with the responsibility to regulate the

education and practice of profession throughout India besides maintaining the register of Architects.

Several books have been published regarding Architectural Education, Technology, Internships, Profession, Radical Change needed in education, Expanding profession and Innovative tools regarding teaching. It is very difficult as well as time consuming for an ordinary man to go through all these books for acquiring knowledge in a nutshell. Further, it is also observed the various irrelevant topics regarding architectural education have been used. Therefore, an attempt has been made in this book to deal with the various important and appropriate aspects regarding architectural education.

It is hoped that this attempt will facilitate generation of awareness among the general public, industrialists, Architects, students, administrators, designers, conservationists and educationists to provide these changes in the remodeling of Architectural education.

Rajesh Sharma

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Hereby I would like to take this opportunity to thank a few people, who helped me to see the end of this task.

These lines are dedicated to all of you.

First and foremost special thanks goes to my mentor Professor (Dr.) N. K. Ameta for valuable discussions, advice and encouragement that any word cannot express. This report would not have been possible without their kind support, critiques, questions and remarkable patience.

I express my gratitude and love to M. B. M. Engineering College, the campus-where lot of experience and experimentation in Architectural education happened.

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Rajesh Sharma

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