



JOURNAL OF THE INDIAN INSTITUTE OF ARCHITECTS
REFEREED JOURNAL OF IIA • ISSN-0019-4913 JULY 2022
VOLUME 87 ▲ ISSUE 07 • RS. 100

+HEALTH CARE

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Printed & Published by Ar Lalichan Zacharias on behalf of The Indian Institute of Architects.

Designed by **November**
Printed by **Anihant Digiprint**
Shed No.1, Ground Floor, CTS No.15, 16, 20, 21 & 37, Italian Compound, Dindoshi Village, Itimbhatti, Goregaon East, Mumbai-400063.

Published at The Indian Institute of Architects, Prospect Chambers Annex, 5th Floor, Dr D N Road, Fort, Mumbai-400001.

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Cover page designed by **November**
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JIA IS REFEREED JOURNAL
ISSN-0019-4913

REGISTERED UNDER SOCIETIES
REGISTRATION ACT, XXI OF 1860

JOURNAL OF THE INDIAN INSTITUTE
OF ARCHITECTS
VOL 87 • ISSUE 07 • JULY 2022

www.indianinstituteofarchitects.com

VERTICAL DESIGN STUDIO: A PEDAGOGICAL BREAKTHROUGH

Prof. Shilpi Sinha

The profession of architecture is one of the most ancient ones and began with the human understanding of habitat and habitable spaces. The history of architecture can be traced to the early man to period which lead to the beginning of early civilizations. As it progressed the profession was appropriated to be attuned to the era it belonged.

In countries of the ancient East, it was among the most prestigious and was open only to the nobility. In ancient Egypt an architect was educated in the school for scribes but usually learned the craft from his family, for architectural skills and methods were handed down from generation to generation. In ancient Greece (fifth to second centuries B.C.) architects were trained in small private schools under the guidance of experienced masters.

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Architectural education not only included knowledge of building materials, the construction trade, and constructional elements, but also of geometry, astronomy, history, philosophy, and so on.

In the current times, the profession of Architecture can be understood as an experimental, open profession. With instructional manuals that may or may not be followed, the students are initiated and made to observe, learn, and apply their understanding to the various projects that they do.

There have been numerous ways to make the students of architecture aware about the issues and to improve their understanding of built environment. Books, research papers, write-ups, context studies, case studies, user space analysis,

primary surveys, secondary surveys etc. All of these have been traditionally followed in the architectural education systems across the globe and continue to be the tools adapted by the instructors.

One aspect that has always been overlooked is peer learning. Peer Learning is a learning technique that promotes collaboration and teamwork to gain knowledge. Indeed, it is the learners who, from a concept and different information, must answer a problem without the intervention of a teacher. Each learner is both a recipient and donor of knowledge.

Vertical Studio is one such format in Architectural Education that aides the peer learning and inculcates confidence amongst students of architecture.

The "Vertical Studio" is specifically designed for graduate students pursuing a first professional degree in architecture. The design studios conducted in a vertical format are usually taught in a manner which combines students of differing years of design and drawing experience. Problems are set to maximize opportunities for learning, skill acquisition, and idea dissemination at all levels, from beginning to intermediate, allowing students to progress at their own rate.

The motivation behind "Vertical Studio Teaching" is not only to train Architecture students to solve complex design problems, but also to expose them to teamwork, whereby each group members are interdependent on each other's performance. The primary purpose of the teams is to define their collective as well as individual project scopes and design goals.

The idea behind the Vertical Studio concept, is to provide students with an understanding about different levels of design complexities. It also exposes the students to interdependent social learning. Social learning theory focuses on the learning that occurs within a social context. It considers that people learn from one another, including such concepts as observational learning, imitation, and adaptation and interpretation. It concerns teamwork, problem solving and design thinking Skills develop best when they are integral to design activity. The vertical studio format helps the students by providing them with:

- i. A growing ability to organize their own time and effort, and when required, that of others and work in a group as a team.
- ii. Developing skills in externalizing their ideas, verbally and visually, for the purpose of self-critique as well as to communicate with/to others



The student learning takes shape through

- i. Investigation of the needs and requirements
- ii. Understanding the problem statements
- iii. Exploring Concepts related to problem solving
- iv. Generating Alternative solutions to the problem
- v. Determining Resources
- vi. Making decisions
- vii. Taking actions



A Parametric vertical Studio in process at Sharda School of Design, Architecture and Planning

The differences between the outcome of Linear Design Studio and Vertical Design Studio can be understood in very simple terms.

Linear Design Studios are very rigid, but the process is very streamlined.

- The studios are conducted very laterally.
- Peer learning is limited to ones' batchmates.
- Skills are limited to ones that are taught in that particular year.
- Zero collaborative learning from Seniors/Juniors.
- Affinity and Associational value with the institution is missing.
- Lacks simulation of Real-life Industry Experience.
- Individual output.

Vertical Design Studios are based on the fact that every student has a skill that can contribute to the project.

- The existing skill sets are enhanced through mentoring.
- Peer to peer interaction in a vertical group which consists of Seniors as well juniors.
- Wholesome learning experience comprising a high of brain storming
- interactions at all stages simulating a real-life scenario.
- It equips them with an ability to work as a team member as well as a team leader fostering mentorship .
- Enriching experience with augmented skills sets.
- Communication plays a key role in the studio.
- Problems are set in order to maximize opportunities for learning, skill acquisition, and idea dissemination at all levels, from beginning to intermediate, allowing the students to progress at their own rate.



Aurora: Vertical Design Competition at Sharda University School of Architecture and Planning



The learnings and advantages of vertical studio format are very many.

- There is a better clarification of tasks
- Everyone has an accountability towards the outcome
- The studio involves intensive analysis at every stage
- Diverse and creative solutions emerge out of various skillsets
- More work is accomplished in shorter time
- Increased interactions amongst peer groups
- New work strategies
- Shared responsibilities
- Development of soft skills along-with presentation techniques.
- Students feel more comfortable and open when interacting with a peer
- It considers that people learn from one another including concepts such as observational learning, imitation, adaptation, and interpretation.
- Helps develop students' skills in externalizing their ideas verbally and visually for the purpose of self-critique as well as to communicate with/to others.



Communication is the key

Vertical Studio deliberately brings the thinking to the surface, to make problem solving visible. The mentor's thinking is made visible to the team and vice versa. It also breaks the hierarchy in the peer group and provides the students a growing ability to organize their own time and effort, and when required, that of others.

Inferring from above, pedagogically, vertical design studio can open new avenues for the students of Architecture with varied skill sets wherein there is a massive involvement of high emotional quotient and understanding of peers.



Prof. Shhilpi Sinha is an eminent academician and urban designer. Having graduated from TVB School of Habitat Studies (1995) and Post graduated from School of Planning and Architecture (1998), she not only guides and mentors her team of academicians to ensure that students are exposed to the best of the teaching methodologies, but also ensures that they develop out of the box thinking and contribute to the larger good of the society. She encourages an open learning environment where students are initiated into hands-on and experiential learning. At the same time, she is a firm believer in using knowledge for the betterment of living conditions and creating a legacy to make an impact on the ecosystem. shhilpimehra@gmail.com