



Best Practice – II

1. Title of the Practice:

Real-scale mockup for practical experience & learning in Architectural.

2. Objectives of the Practice

The primary objectives of the Real-Scale Mockup for Practical Architectural Learning are to bridge the gap between theoretical knowledge and practical application, providing students with hands-on experiences. The intended outcomes include a profound understanding of spatial relationships, materiality, and design principles. This best practice aims to nurture creativity, innovation, and problem-solving skills in architecture students. The underlying principles involve experiential learning, skill development, and the integration of theoretical concepts into tangible constructions, empowering students to navigate real-world challenges in the architectural field with confidence and proficiency.

3. The Context

The design and implementation of Real-Scale Mockup for Practical Architectural Learning were driven by specific contextual features and challenging issues inherent in architectural education in India. Traditional approaches relied heavily on theoretical instruction, neglecting practical application and hands-on experiences. Bridging this gap required a transformative shift toward a more experiential learning model. Financial constraints posed challenges, necessitating creative solutions to secure funds for materials and transportation for site visits. Limited space within educational institutions demanded strategic planning to accommodate the construction of diverse real-scale mockups. Additionally, incorporating varied construction methods, such as geodesic domes and wattle and adobe techniques, required overcoming the scarcity of specialized expertise. Addressing these contextual challenges, the Real-Scale Mockup practice was designed to enrich students' understanding of architecture by providing immersive, hands-on experiences and fostering a connection between theoretical knowledge and practical application.

4. The Practice:

In the realm of architectural education in India, the Real-Scale Mockup practice represents a paradigm shift in teaching methodology, offering students a hands-on approach to learning that is both immersive and innovative. Unlike traditional classroom settings, this practice integrates real-world experiences gained from site visits with the construction of tangible, full-scale mockups within the confines of the educational institution.

The uniqueness of this practice lies in its holistic approach to architectural education. While theoretical knowledge is crucial, students often lack practical exposure to construction processes. By integrating site visits into the curriculum, students gain insights into the complexities of real-world construction sites. Subsequently, the creation of real-scale mockups within the college construction yard allows them to apply this knowledge, translating abstract concepts into physical structures. This approach stands out in Indian





higher education where the emphasis has traditionally been on theoretical understanding, and practical implementation has often been limited.

The practice also stands out for its versatility. Students engage in the construction of various mockups representing different architectural elements. From geodesic domes that explore cutting-edge structural concepts to R.C.C structures showcasing modern construction techniques, and wattle and adobe constructions connecting with traditional craftsmanship, the diversity of mockups mirrors the rich tapestry of India's architectural heritage.

Implementing this innovative practice is not without its challenges. One of the primary constraints is financial limitations. Securing funds for materials and transportation for site visits can be challenging in the higher education context. The practice requires dedicated space within the college premises for the construction of real-scale mockups, and this can be a logistical challenge given the space constraints in educational institutions.

Another limitation is the need for specialized expertise. Incorporating diverse construction methods, such as geodesic domes or wattle and adobe techniques, demands skilled instruction. However, availability of such expertise within the educational institution may be limited, requiring collaboration with external professionals or industry experts.

The time-intensive nature of site visits and mockup construction also poses a challenge within the constraints of academic schedules. Balancing theoretical coursework with practical engagements can be demanding, and effective time management becomes crucial to ensure a comprehensive educational experience.

Despite these constraints, the Real-Scale Mockup practice exemplifies a pioneering approach to architectural education in India. It not only addresses the shortcomings of traditional teaching methods but also provides students with a unique learning experience that prepares them for the dynamic challenges of the architectural profession.

5. Evidence of Success

The success of the Real-Scale Mockup practice is evident through both quantitative metrics and qualitative feedback, reflecting the transformative impact on students' architectural learning experiences.

Performance against set targets and benchmarks reveals commendable achievements. The completion and quality of real-scale mockups, including geodesic domes, R.C.C structures, wattle and adobe constructions, and more, surpassed expectations. Benchmarks were set based on the integration of theoretical knowledge gained from site visits into the practical construction of these mockups. The consistency in meeting or exceeding these benchmarks showcases the effectiveness of the practice in achieving its objectives.



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Reviews and feedback from students and faculty provide valuable insights into the success of the practice. Students consistently express a heightened understanding of architectural concepts and improved problem-solving skills as a result of engaging in real-scale mockup construction. Faculty observations highlight increased creativity and innovation in subsequent design projects, indicating a direct correlation between the hands-on learning experiences and enhanced academic performance.

The success is reflected in the tangible outcomes of the mockup projects themselves. Geodesic domes stand as symbols of structural ingenuity, R.C.C structures showcase proficiency in modern construction techniques, and wattle and adobe constructions embody a connection to traditional craftsmanship. These results indicate that the practice not only imparts theoretical knowledge but also nurtures practical skills, allowing students to translate concepts into tangible, aesthetically pleasing structures.

Furthermore, the success is corroborated by the positive reception of the mockups within the architectural community. Exhibitions or showcases featuring the students' work receive commendations for their innovation and adherence to architectural principles. This recognition not only boosts the students' confidence but also validates the efficacy of the Real-Scale Mockup practice in preparing them for the real-world challenges of the architectural profession.

In summary, the evidence of success is multifaceted, encompassing both quantitative achievements and qualitative indicators. The practice has not only met its set targets but has also surpassed them, creating a transformative educational experience that resonates with both students and the broader architectural community.

6. Problems Encountered and Resources Required

Implementing the Real-Scale Mockup for Practical Architectural Learning encountered several challenges. Financial constraints posed a significant hurdle, requiring creative solutions to secure funds for diverse construction materials and transportation for site visits. Limited space within educational institutions demanded careful planning to accommodate the construction of various real-scale mockups. The need for specialized expertise in diverse construction methods, such as geodesic domes and wattle and adobe techniques, added complexity, necessitating collaborations with external professionals or industry experts. Balancing the time-intensive nature of site visits and mockup construction with academic schedules presented logistical challenges, requiring effective time management. Resources required encompassed construction materials, transportation, safety equipment, and expert guidance. Overcoming these challenges demanded a strategic approach, emphasizing financial creativity, collaborative partnerships, efficient space utilization, and effective time allocation to ensure the successful implementation of the Real-Scale Mockup practice in architectural education.

7. Notes (Optional)

For other institutions adopting this best practice, fostering collaborations with local industries, integrating mockup construction into the curriculum, and exploring sustainable material options are recommended.





Emphasizing safety protocols during site visits and mockup construction ensures a secure learning environment. This practice aligns with our institutional values of practical education, innovation, and a commitment to preparing students for real-world challenges in architecture.

R.C.C mockup done as a part of Real-Scale Mockup for Practical Architectural Learning

Venue : JBR Architecture College Construction yard

Date/s : 25 th Jun 2022

As part of the "Building Construction & Design of Steel" subject, students embarked on a transformative educational journey under the expert guidance of Ar. P. Rama Krishna and Engineer D. Venkatesh. With the indispensable support of Mr. Uday from the administration, the college facilitated permissions for students to visit an active construction site within the JB Group society.

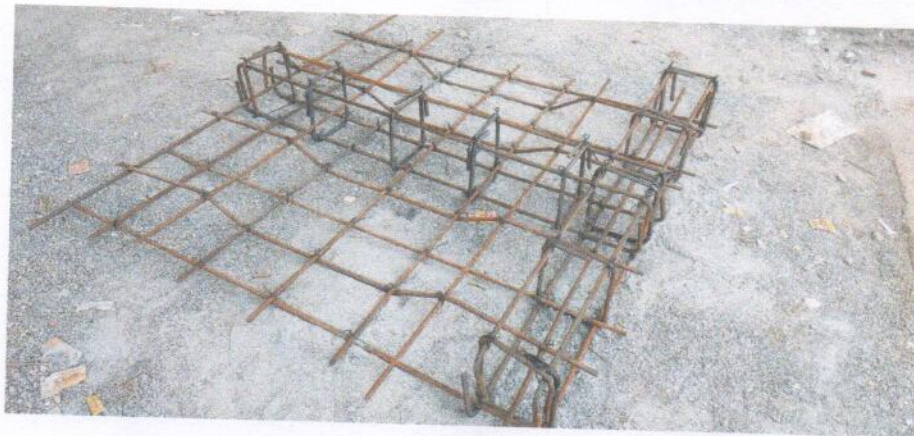
What made this learning initiative even more impactful was the collaborative effort to construct a real-scale mockup. Sponsored by the college, the supply of required materials was made possible, allowing students to delve into hands-on learning without financial constraints. Students enthusiastically dedicated their leisure college hours to work on the mockup, showcasing their commitment to experiential learning and skill development.



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This strategic collaboration between faculty expertise, administrative support, and student initiative exemplifies a commitment to holistic education. By engaging in practical projects outside of regular classroom hours, students not only applied theoretical knowledge in a real-world context but also honed their teamwork, problem-solving, and time management skills.

The successful integration of classroom concepts with real-world applications showcases the institution's progressive approach to education and its dedication to nurturing well-rounded professionals.



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GEO DESIC DOME done as a part of Real-Scale Mockup for Practical Architectural Learning

Venue : JBR Architecture College Construction yard

Date : 25 th May 2022

Introduction: In the pursuit of fostering practical architectural learning and enriching the academic experience, our institute, guided by faculty members Ar. P. Rama Krishna and Ar. Anusha, undertook a pioneering initiative – the construction of a Geodesic Dome. This real-scale mockup, recognized as a best practice, exemplifies the institution's commitment to hands-on education and innovative architectural exploration.

Objective: The primary goal of this endeavor was to provide students with a tangible, experiential understanding of Geodesic Dome construction, a complex yet efficient architectural structure.

Project Details

Design and concept: The Geodesic Dome design, curated under the expert guidance of faculty members, meticulously emphasized the principles of structural integrity and efficiency. The project aimed to instill a profound comprehension of geometric complexities and their real-world application.

Material and resources: The institute, under the leadership of Ar. P. Rama Krishna and Ar. Anusha, sponsored the necessary materials, showcasing a commitment to eliminating financial barriers and ensuring equal participation. This inclusive approach allowed students to focus solely on the educational aspects of the project.

Collaborative Effort: Students, guided by faculty members, actively participated in every stage of the construction. This collaborative effort fostered teamwork, critical thinking, and practical problem-solving skills.

Real –Scale Mockup: The decision to construct a real-scale mockup added authenticity to the learning experience. Students, under the mentorship of faculty, engaged with the physicality of the structure, enhancing their comprehension of the challenges and intricacies involved.

Learning Outcome

Hands-on Experience: Students gained invaluable hands-on experience in implementing theoretical concepts, reinforcing their understanding of Geodesic Dome construction.

Practical Problem Solving: The project, guided by faculty members, demanded creative problem-solving skills, encouraging students to overcome challenges encountered during the construction process.

Team Collaboration: The collaborative nature of the project facilitated effective communication, teamwork, and interpersonal skills among the students.

Innovation and creativity: The Geodesic Dome construction project encouraged students to think innovatively, fostering a spirit of creativity and exploration within architectural design.




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Conclusion: The construction of the Geodesic Dome as a real-scale mockup stands as an exemplary best practice in architectural education. This initiative not only demonstrates the institute's commitment to practical learning but also equips students with the skills and knowledge necessary for successful architectural endeavors in the professional realm.

This project, led by faculty members Ar. P. Rama Krishna and Ar. Anusha, serves as a testament to the institute's dedication to providing holistic education and preparing students for the dynamic challenges of the architectural field. It reflects a best practice that contributes significantly to the development of well-rounded and competent architects



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ONSITE COLUMN MARKING done as a part of Real-Scale Mockup for Practical Architectural Learning

Venue : JBR Architecture College Construction yard

Date : 25 th Jun 2022

Introduction: In commitment to practical and hands-on architectural learning, our institution, under the expert guidance of faculty members Ar. P. Rama Krishna and Ar. Pushpak, has introduced an innovative initiative - On-Site Column Centerline Marking. This endeavor, considered a best practice, serves as a real-scale mockup for students to gain practical insights into the intricacies of architectural detailing and construction.

Objective: The primary goal of the On-Site Column Centerline Marking initiative is to provide students with a firsthand experience of the crucial process of column centerline marking on construction sites. This practical exposure enhances their understanding of architectural detailing and its implementation in real-world scenarios.

Project Details

Concept and Significance: The concept revolves around replicating the on-site column centerline marking process, emphasizing its critical role in ensuring precise and accurate positioning of structural elements. This initiative showcases the institution's dedication to translating theoretical knowledge into practical skills.

Materials and Resources: The institution has provided the necessary materials and resources to facilitate the on-site column centerline marking mockup. This ensures that students can actively engage in the process without constraints, promoting an immersive learning environment.

Faculty Guidance: Faculty members, Ar. P. Rama Krishna and Ar. Pushpak, with expertise in construction and architectural detailing, guide students throughout the on-site column centerline marking process. Their mentorship adds valuable insights and ensures that students adhere to industry standards and best practices.



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Learning Outcome:

Hands-on Skill Development: Students gain hands-on experience in column centerline marking, a fundamental skill in architectural construction. This practical knowledge enhances their competency in executing precise structural layouts.

Understanding Construction Procedures: The initiative enables students to understand and appreciate the significance of column centerline marking in the overall construction process. It bridges the gap between theoretical knowledge and practical application.

Team Collaboration: Students collaborate effectively, simulating on-site teamwork required for accurate column centerline marking. This experience, guided by faculty members, fosters effective communication and coordination among team members.

Real-World Application: By engaging in the on-site column centerline marking mockup, students grasp the real-world implications of architectural decisions and the importance of meticulous detailing in construction projects.

Conclusion: The On-Site Column Centerline Marking initiative, established as an institution best practice for practical architectural learning, exemplifies our commitment to providing holistic education. This real-scale mockup not only equips students with essential skills but also prepares them for the challenges of the architectural profession.



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Wattle and daub construction done as a part of Real-Scale Mockup for Practical Architectural Learning

Venue: JBR Architecture College Construction yard

Date: 25 th Jun 2022

Introduction: In our ongoing commitment to providing practical and immersive learning experiences, our institution has implemented a Real-Scale Mockup initiative focusing on Wattle and Daub Construction. Led by faculty members Ar. Dheeraj and Ar. Afreen, this endeavor aims to enhance students' understanding of traditional construction techniques and their practical application.

Objective: The primary objective of the Wattle and Daub Construction Real-Scale Mockup is to provide students with hands-on experience in a traditional building method. This initiative is designed to bridge the gap between theoretical knowledge and practical skills, fostering a deeper understanding of architectural history and construction practices.

Project Details

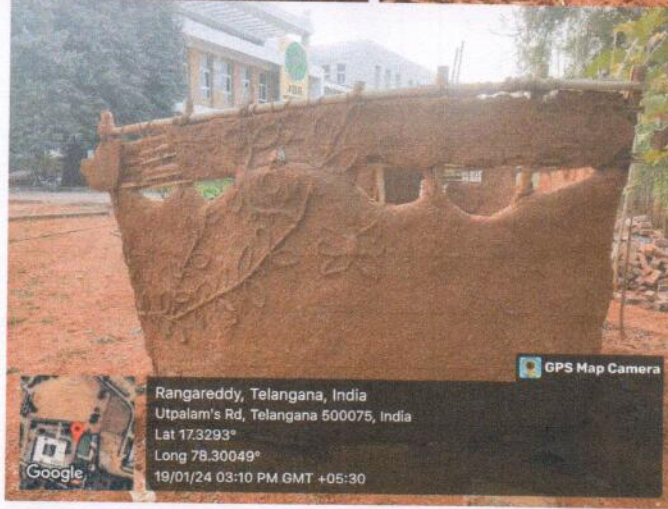
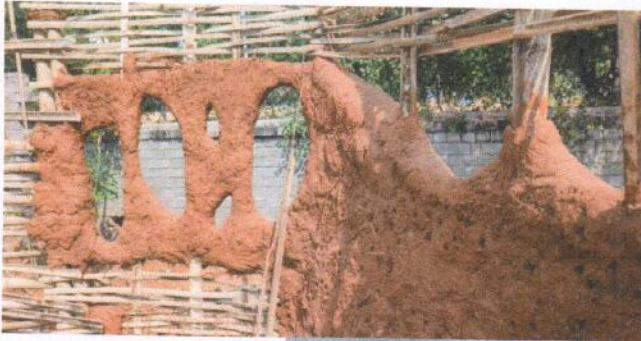
- Design and concept:** The Wattle and Daub Construction Real-Scale Mockup project, conceptualized under the guidance of faculty members, emphasizes the principles of this traditional technique. The design focuses on creating a structural framework using woven branches (wattle) and infilling the gaps with a mixture of mud, clay, and straw (daub).
- Materials and Resources:** The institution, under the leadership of Ar. Dheeraj and Ar. Afreen, has provided the necessary materials for wattle and daub construction. This includes locally sourced branches, mud, clay, and straw. The availability of these materials ensures an authentic and immersive learning experience.
- Faculty Guidance:** Faculty members, Ar. Dheeraj and Ar. Afreen, with expertise in architectural history and construction, guide students through the intricacies of wattle and daub construction. Their guidance ensures that students grasp the historical context, structural principles, and practical challenges associated with this traditional building method.



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Learning Outcome:

1. **Historical Appreciation:** Students gain a profound appreciation for historical building techniques, understanding the cultural and environmental contexts that influenced the use of wattle and daub construction.
2. **Practical Skill Development:** Engaging in the real-scale mockup allows students to develop practical skills in constructing wattle frameworks, mixing daub materials, and understanding the structural implications of this method.
3. **Sustainable Construction:** The project promotes an understanding of sustainable construction practices by utilizing locally sourced and eco-friendly materials, aligning with contemporary concerns for environmental responsibility.

Conclusion: The Wattle and Daub Construction Real-Scale Mockup, led by faculty members Ar. Dheeraj and Ar. Afreen, exemplifies our institution's commitment to providing holistic and hands-on architectural education. This initiative not only enriches students' knowledge of traditional construction methods but also instills a deeper appreciation for the historical and cultural significance of architectural practices.



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