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RETHINKING ARCHITECTURAL PROJECTION EDUCATION:

THROUGH BUILDING INFORMATION MODELLING A STUDY OF DESIGN PROCESSES, PROJECTION AND COLLABORATION AT ANHALT UNIVERSITY

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ABSTRACT

The thesis investigates the transformative role that Building Information Modelling is playing in architectural education, with a focus on architecture and engineering programs at Anhalt University. With strides architectural practice makes toward adopting digital techniques, BIM has become a very fundamental educational tool that transforms both teaching and learning, as well as practice paradigms. This study researched how the Building Information Modelling Process influences the process of architectural design, projection steps, student creativity, and collaborative dynamics among students.

This paper is focused on a multi-method analysis pertaining to the integration of Building Information Modeling in selected curriculums at Anhalt University, conducted through surveys and semi-structured interviews. More specifically, it deals with departments belonging to the Architecture, Facility Management, and Geoinformation Faculty of Anhalt University. This approach will ensure a balance in the examination of both quantitative impacts and qualitative experiences that students and faculty members have with BIM and design processes of architectural projection. The research focuses on three main questions: whether the effect of BIM is on traditional and modern design techniques; its role in student creativity and projection within design processes; and how effective it is in promoting collaborative project management and interdisciplinary learning together with interpreting the project cycle by developing critical thinking skills.

This thesis will likely show that BIM not only improves design visualization and simulation but also strengthens the understanding of the building process from conceptualization to actual construction. Out of the effective combination of theoretical knowledge and practical application, BIM has become an important feature in the training of future architects, thereby meeting the requirements that come along with the dynamic evolution of the profession. This research has furthered the call for architectural design education supporting the development of adaptable, flexible, and critically minded architects. This is to say, a design profession that is resourceful about questioning, transforming, and collaborating across domains strongly evidences the ability to adapt to the quickly changing environment of the profession. The central focus is, therefore, based on the need to strike a balance between theory and practice in such a manner that can integrate traditional methods with modern techniques. Like this, a comprehensive approach is necessitated that calls for the evolution of architectural education, incorporating the available technologies to foster professionalism among the graduates so that they can practice competently in both established and new professional environments.

Keywords: Building Information Modeling (BIM), Architectural Education, Creative Design Process, Collaborative Learning, Digital Tools in Architecture, Project Lifecycle Management, Interdisciplinary Collaboration, Sustainability in Architecture, BIM Culture, Curriculum Development, Technology Integration in Education, Architectural Pedagogy, Architectural Student Life