Education, Design and Practice – Understanding skills in a Complex World

• Paper / Proposal Title:
A Strategy to link architecture education with the profession in three aspects (socially, economically and technologically)

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• Abstract (300 words):
Following the establishment of the first Sudanese architecture school in the nineteen-sixties, Sudanese Architectural professional community seized the opportunity to stray from the country’s style brought by the British during their Colonial-era. Sudanese architecture schools played a pivotal role in bridging the gap between theory and professional practice through a comprehensive educational syllabus. The author attempts to present a case study subsequent experimental research on two Sudanese schools, made possible by the author in collaboration with architects and people in academia concerned about the education’s future and the practice. The gap as mentioned earlier, i.e. socially, economically and technologically.

Firstly, the social gap resulted from curriculum shortcoming in addressing the importance of design social impact on a community coupled with the negligence of social studies research during universities learning cycle, thus negatively affecting student’s ability to articulate realistic designs.

Secondly, the economic gap caused by insufficient information about
Building materials costs and clients demographics and income making graduates less capable of adapting to the market.

Thirdly, the technological gap caused by a sluggish adoption of CAD and 3D modeling software in the practice firms and the lack of knowledge about construction technologies and its practical application has put more burden on graduates.

The experiment is meant to act as a framework to provide final-year students with a practical graduation project, by assisting them in finding needed project listed as a priority to the Sudanese community such as but not limited to hospitals, school, community centers and public areas, thus maximizing materialized social impacts. The author recommends encouraging students participation in local and international construction technologies conferences and workshops. Finally, BIM, CAD, and 3D modeling should be an adjunct to University training.

An outcome is expected from this experimental approach of architecture education to cover the gaps between practice and academia.

• Author(s) Biography (200 words each):

Architect Reem H. Kinani is a lecturer and subject developer at future university Sudan, works also as Senior Designer at Kinani engineering company for design and consultancy, who has a master degree in industrial design for architecture in politecnico di Milano, Italy.

Attending a professional masters course dealing with real companies and realistic projects to prepare students for architectural practice has inspired her to transfer part of her experience to Sudanese universities.

Collaborating with university of Khartoum postgraduates program to introduce parametric design courses for masters students is one of her accomplishments in covering part of the gaps that students has between practice and academic study. Teaching (Rhino program and grasshopper skills) covers all the basics about parametric design, theoretical and technical skills, innovative way of learning and building a design based on data only.

Supervising 12 students in their graduation projects at future university using a new approach of choosing projects, research and presentation, using critical thinking to stimulate the design process.

As a subject developer, she is responsible from Adding innovative materials to architecture faculty curriculum such as practical interior and industrial design courses for undergraduates to cover parts from the gaps after graduation and expand the knowledge of furniture design and construction building materials.
Being an active member of Sudanese architects association always aiming to develop the industry and cope with international market, she has managed to be one of the organizers of a successful conference (Kerma earth architecture expo project 2019 ), introducing modern technologies of earth architecture from different 13 countries around the world, the participation of students was essential, meeting architects from other backgrounds opened their horizons and cover some of the gaps between the Sudanese market and the international market.

As a partner in Kinani engineering who has designed leading projects in Sudan, saving seats for the students and fresh graduates for internship to prepare them for professional training.