

Digital Domes. Architecture's engineering with geometry of high indetermination degree.

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Abstract Undoubtedly, a major part of the History of Architecture of the XX and XXI centuries is linked to the development and evolution of large covering surfaces. The introduction of new construction technologies and materials at the beginning of the XXI century is also contemporary with the demands on applying new programs and with the need of developing height building types, large spans, and covering surfaces with complex geometries of high indetermination degree and typological characteristics not experimented until that moment among the engineering and architectural spheres. Engineers and architects have been forced to confront the resolution of such challenges with new technical and scientific knowledge, and with the creation of shapes' digital design, which is developed in parallel to the evolution of new building techniques, hence revolutionizing the production techniques of Architecture.

Keywords Domes, Digital Design, Advanced Technologies