Algorithm analysis from Villa Rotonda and Villa Norrköping

Fernando M. Alonso Pedrero

University of Navarra
ETSAUN
Theory, Projects, Urbanism
Pamplona, Spain

falonso.1@alumni.unav.es

ABSTRACT

The field of mathematics has always been present in architectural performance. At the beginning, using the graphic language, we develop analogical mechanisms to solve geometric problems. Today, the algebraic language with the support of computational calculation, resolves <<form>> with accuracy and precision. The poster analyzes, from the point of view of the mathematical form-construction: the Villa Rotonda (Palladio, 1566) and its contemporary "version": Villa a Norrköping (Sverre Fehn, 1964). We have created an ordered set of operations (simultaneously graphic and algebraic) that allows obtaining as a result: the plan of both villas. These operations are linked to the proportions and scale of classical harmony. However, and despite the fact of sharing a mathematical model (the Palladian top-plan), their spatial configurations are radically different. This reflection emphasizes the multi-application of the mathematical form and invites us to reimagine the applications of mathematical objects, even the simplest ones.

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