## A Visual Representation of the Pantheon's Floor Plan, using Palladian Grammars

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Palladian grammars are defined as a parametric shape grammar that generates a ground plan emphasizing the Palladian style. Influenced by Palladian grammar, the Pantheon's floor pattern can be described by a grid definition. Starting under an initial shape from which the floor pattern originates, unique color schemed patterns define the floor design. The Pantheon's floor tiles follow a twodimensional growth of expansion based on a Cartesian coordinate with respect to the north-south axis of this system. Following the Palladian principle of bilateral symmetry relative to the northsouth axis of the coordinate system, the Pantheon's woven floor pattern plan can be described by using six simple rules with two different geometries and three different color schemes. These Rules - Rule A, B, C, D, E, and F – are categorized above to describe the intricacies behind the similarly designed shapes that have unique identifiers. Through the application of sixteen unique steps that integrate these six rules onto the Pantheon's floor pattern, one can speculate the array of rule applications possible with the given structure's orthogonal boundaries.

Below: Pantheon's Diagonal Floor Pattern, relating diagonal symmetry through the application of Palladian grammars to its Cartesian coordinate



