GOLDEN MATRIX© WORKSHOPS

My interest in space-filling matrices was inspired by Buckminster Fuller's Isotropic Vector Matrix (IVM). The module for IVM is the cuboctahedron, with its 6 axes, 12 vertices and 4 planes. Each plane is a hexagon whose 6 radii are the same length as its 6 edges.

The basic module of the Golden matrix (GM) is the icosidodecahedron. It has 15 axes, 30 vertices, in 6 planes. Each plane is a decagon in which the relationship of the length of the 10 radii to the length of its 10 edges is 1.618…. the golden mean ratio.

There are compound polyhedra: cubes, octahedra, cuboctahedra, tetrahedra, and rhombic dodecahedra, which simultaneously occupy 5 different orientations in shared space with one common center. The Golden Matrix incorporates and integrates these compound polyhedra. The Golden Matrix also includes and orders the five platonic and 11 semi-regular polyhedra. The Golden Matrix also includes the geometry of Quasicrystals.

In both the Isotropic Vector Equilibrium (IVM) and the Golden Matrix (GM), all the modules connect vertex to vertex. IVM is defined by 12 vertices around 1 vertex, while GM is defined by 30 vertices around 1 vertex.

Hierarchy of Polyhedra
A polyhedra chart starting with the thirty-verti (icosidodecahedron)

Exploring Marvin Solit's Polyhedra Work---Bob Gray's WebSite

HANDS-ON WORKSHOPS

I will be hosting GM workshops in which we will use my collection of models and together, build others. I have a good supply of Zometool equipment on hand, but I recommend, if possible, having your own. There will be Zometool kits available for purchase. I will shortly be setting dates for workshops. Please let me know if you have date preferences, or if you want more information.

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