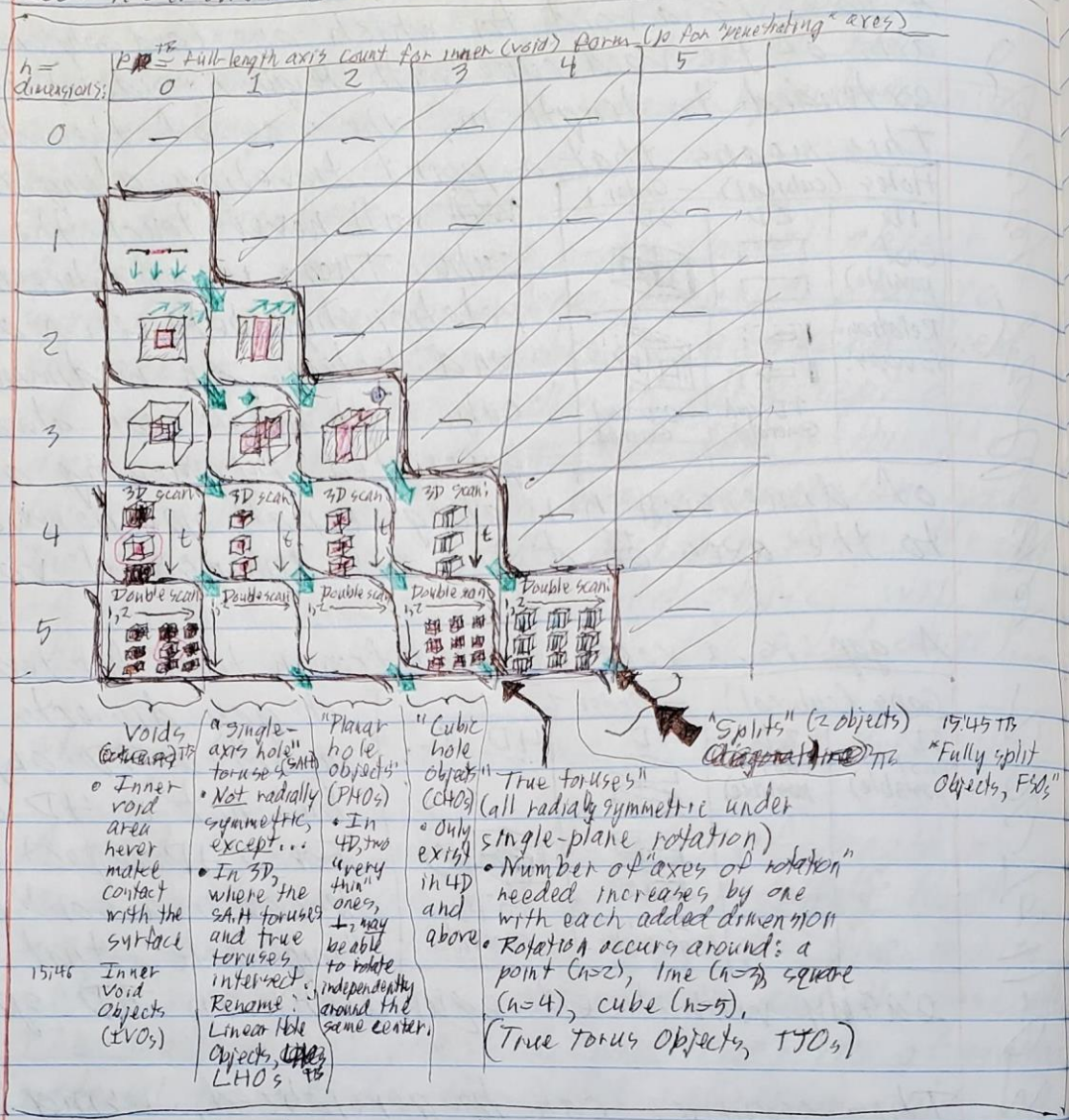
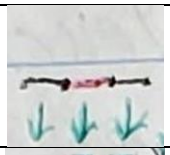
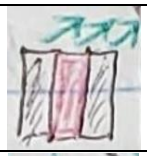
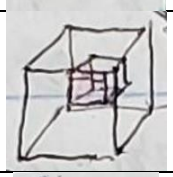
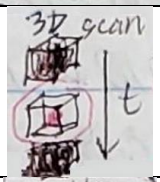
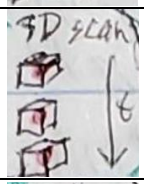
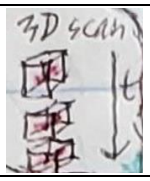
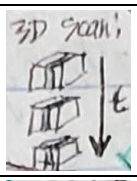
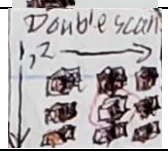
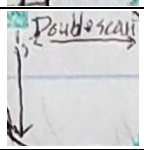
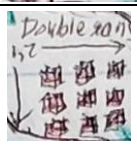
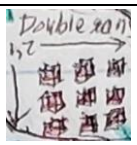
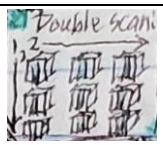
2007-11-04. 11:18 Sun — 4D Circulations [11:22]



This chart shows that great care must be taken in generalizing to higher dimensions. In particular, there are two distinct ways to define a torus. The True Torus Objects (TTOs), which are defined by starting with a Saturn-ring geometry planar void and generating new objects in higher dimensions, [15:24]

Apabistia SFL **04**, 200711041118 (2007) 1 sfl.04.2007-11-04.1118.pdf

2007-11-04.11:18 Sun - 4D Circulations [11:22]

n = dimensions	p = full-length axis count for inner (void) form (p for "penetrating" axis					
	0	1	2	3	4	5
0						
1						
2						
3						
4						
5						
	Voids * Inner void area never make contact with the surface 15:46 Inner Void Objects (IVOs)	"Single-axis hole" toruses (SAH) * Not radially symmetric, except… * In 3D, where the S.A.H toruses and true toruses interest. Rename: Linear Hole Objects, LHOs	"Planar hole objects" (PHOs) * In 4D, two "very thin ones, ⊥, may be able to rotate independently around the same center	"Cubic hole objects" (CHOs) * Only exist in 4D and above.	\ "True toruses" (all radially symmetric under single-plane rotation * Number of "axes of rotation" needed increases by one with each added dimension * Rotation occurs around: a point (n=2), line (n=3), square (n=4), cube (n=5). (True Torus Objects, TTOs)	\ "Splits" (2 objects) 14:45 TB "Fully split Objects, FSOs"

This chart shows that great care must be taken in generalizing to higher dimensions. In particular, there are two distinct ways to define a torus. The True Torus Objects (TTOs), which are defined by starting with a Saturn-ring geometry planar void and generating new objects in higher dimensions. [15:24]

Terry Bollinger 2007-11-04.14:14 Sun