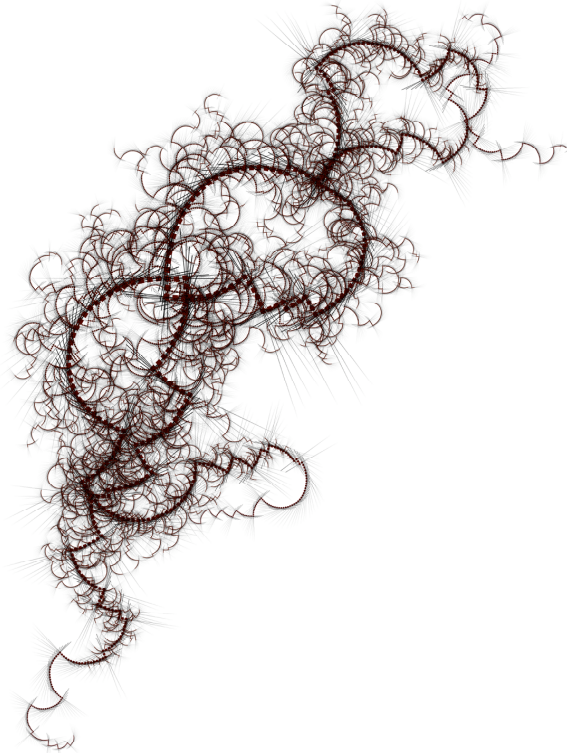GENERATIVE PERMUTATIONS NOS 1-3
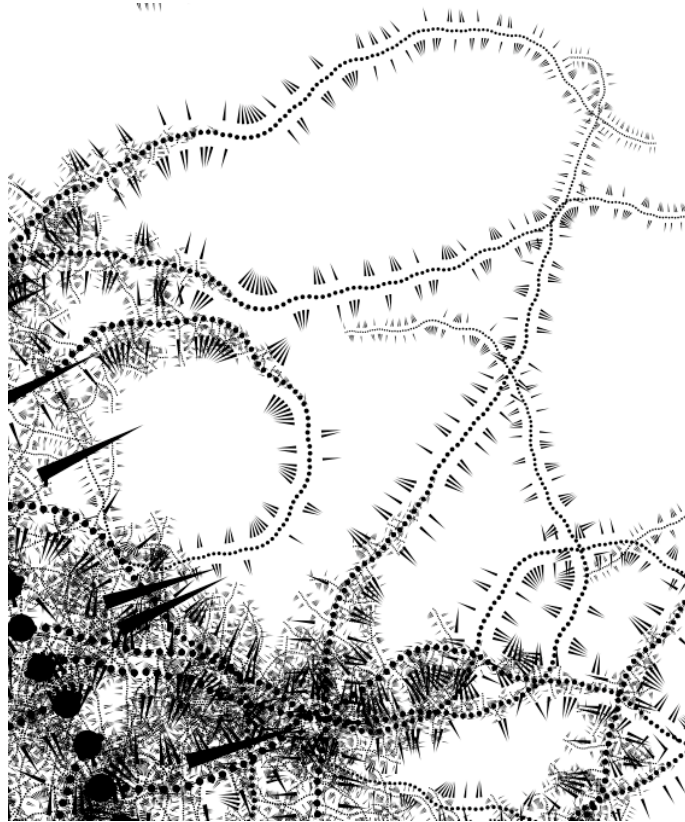*By Brock Craft*

**Image One: Sharp_zz**



This image was created from explorations into the layout and structure of networked, hierarchical artefacts, such as trees, cities, and libraries. The structure is composed of millions of shapes and branches but produced with only a handful of instructions, using computer software which employs a context-free grammar. This technique allows very complicated and beautiful entities to be created, with elegant and minimal programming code. The programming code (but not the rendering software) was produced during my research into Information Visualisation at the UCL Interaction Centre.

**Image Two: SpineCity**



This image was created from explorations into the layout and structure of networked, hierarchical artefacts, such as trees, cities, and libraries. The structure is composed of millions of shapes and branches but produced with only a handful of instructions, using computer software which employs a context-free grammar. This technique allows very complicated and beautiful entities to be created, with elegant and minimal programming code. The programming code (but not the rendering software) was produced during my research into Information Visualisation at the UCL Interaction Centre.
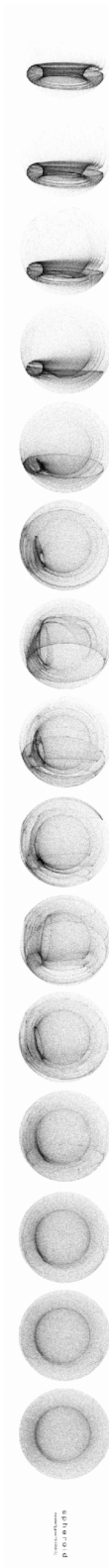
**Image Three: Doughnut → Dumpling**

This sequence of images is a visualisation of an algorithm for transforming a doughnut-shaped object, or "torus" into a spherical object, which I call a "dumpling". Each successive image shows the torus being mathematically "peeled" like the layers of an onion, until the resulting sphere is generated. In fact, the outer layers are inverted and stretched out until the outer surface of the torus is nested inside of the sphere. The transformation sequence required approximately 10 hours of computation and rendering. This work is part my ongoing research into information visualisation at the UCL Interaction Centre (UCLIC).

(Please note: the image to the left is not shown in its original size.)

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