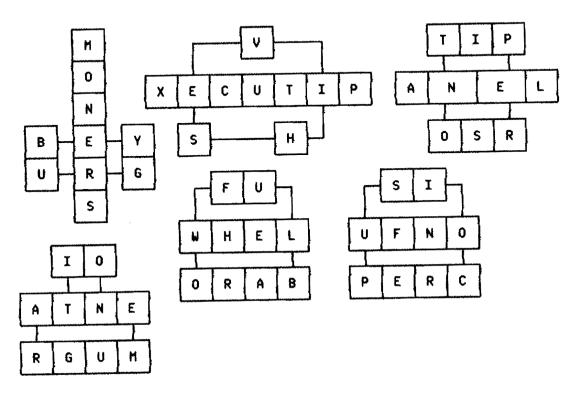
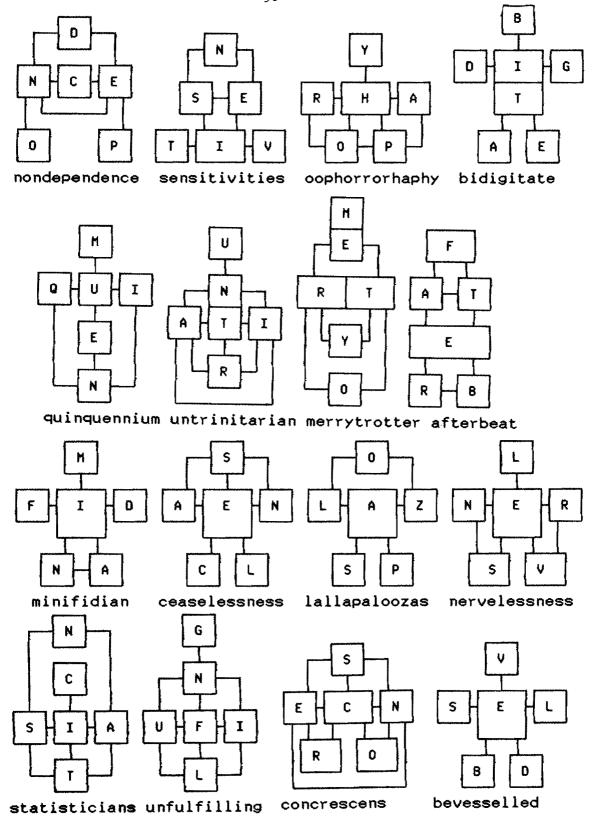
A SYMMETRIC BESTIARY

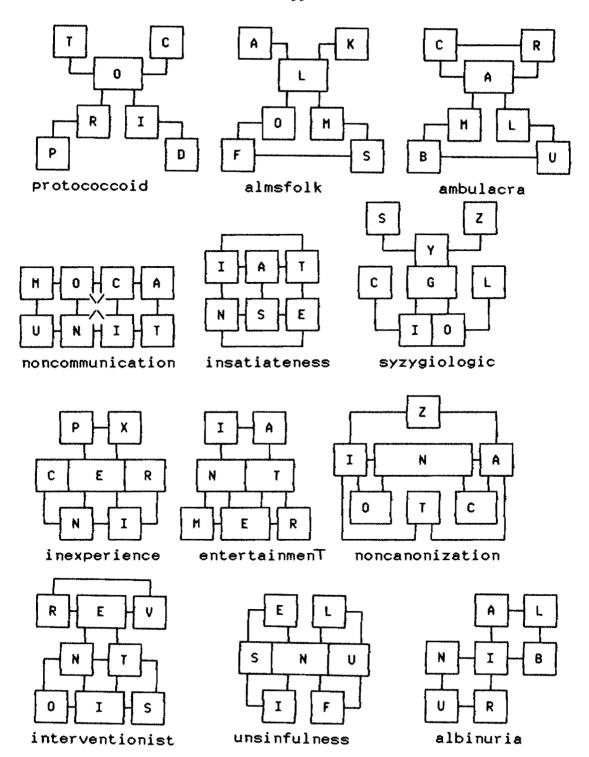
LEONARD GORDON Tucson, Arizona

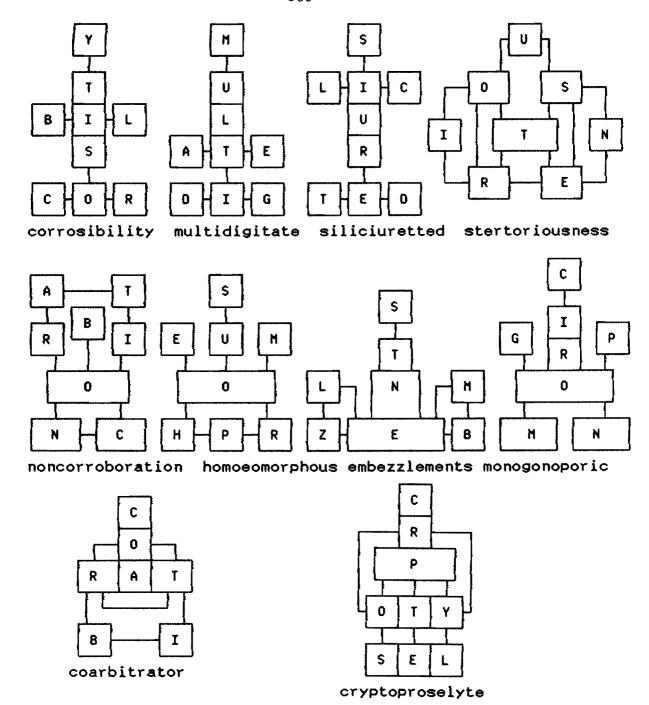
In February 1995, "A Word Graph Bestiary" presented all possible graph shapes for words having five different letters. On the next three pages, I exhibit a sample of symmetrical "beasts" corresponding to words of six to nine different letters: fat man, thin man, ape man, crab, girl jumping rope, etc. The corresponding words are (except for SYZYGI-OLOGIC) not unique; other words having these graphs can be found. The tricky part of this problem is that there are many ways a word graph can be drawn, not all of them symmetrical. NONCOMMUNICATION can be shown without crossing lines but the symmetry is lost.

A cursory examination of words with ten different letters found a few symmetrical cuties like MONEYGRUBBERS, EXECUTIVESHIP, ANTIPERSONNEL and ARGUMENTATION. It also found a WHEELBARROWFUL of SUPERCONFUSION.

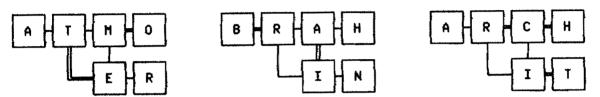




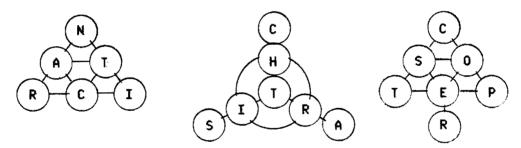




So far, most of my beasts are symmetrical about a vertical line. A few also have horizontal symmetry. Let's now examine beasts with rotational symmetry. The following have 111333 connectivity. Their graph, a triangle with a wing for each apex (distorted below), is the only one possible for that connectivity. If we consider actual paths needed to traverse the graph, three different graphs can be distinguished. The first one is illustrated by ATMOMETER (phthalate, piecening, unengaged, isostatic, astuteness), the second by HAIRBRAIN (autoroute, clausulae, clausular, hortatory, monitions, peltately, sarcocarp, sourcrout, verifiers) and the third by ARCHCRITIC (engagement).



Here are two other connectivity patterns that lead to unique graphs. ANTARCTICA (daydreamed, candescence and others) fits the 222444 pattern; only CHIRARTHRITIS fits the 1113444 pattern. Putting a tail on the triangle brings its connectivity to 1222445. STEREOSCOPES and 16 others, including antiutilitarian, Antarctical and incandescence, fit.



My call to the computer to find words with 333333 connectivity brought forth two words, METASOMATOSES and INSATIATENESS. The first cannot be graphed without crossing lines, and the second was shown previously. Here it is again in inside-out symmetry.

