## **Additions to Chipmonk for CMOS:**

Chipmonk now handles CMOS. This involves two new wiring layers, and various other things. Below the scale bars in the feedback area you can set the mode between n-Mos and CMos (mouse button click over appropriate text). This mode makes the new layers available, and changes the effect of several commands. In CMos mode, **P-<Draw>** gives you a p-type transistor instead of a pullup; and **4-<Draw>** gives you a metal-to-p-diffusion contact instead of a burried contact. The mode does not affect already existing objects, it just changes the meaning of the commands.

The two new wiring layers are p-diffusion and second metal. P-diffusion is layer 4, and implies an n-well surounding it. (The n-well gets drawn automatically, and looks like a brown background in place of the normal blue-gray background). Second metal is layer 5. The two new layers can be selected analogously with the previous layers. (**<Ctrl>4, 4-<Sel>** for p-dif; **<Ctrl>5, 5-<Sel>** for met2; and by pointing in the feedback area). There are also new contacts needed. **4-<Draw>** gives you a metal to p-dif contact (with n-well) and **5- <Draw>** gives you a metal-metal2 contact. In addition, **1-<TAB>-<Draw>** gives you a contact from metal2 to poly, and **4- <TAB>-<Draw>** gives you a contact from metal2 to p-dif; all with metal sandwiched in. Also **G-<Draw>** gives you a contact from metal to the n-well.

P-<Draw> gives you a p-dif transistor in CMos mode, with an n-well.

The color-table selection has been expanded. There are now eight + signs above the color table part of the feedback area. These select pattern tables. The pattern tables specify the half-tone patterns with which the layers get drawn. It is fairly complicated to show all these layes, and all necessary overlaps, with only 4 bits per pixel, so the process of setting up these tables is a little tricky. The color table setting mode allows changing the pattern tables as well, and you are welcome to experiment, but you will probably just get into trouble. Details of setting up the pattern tables are not described here.

The first pattern table is the n-Mos one you are used to. The second one (next one to the right) is for CMOS, and the color table below it is the one which goes with it. If you are going to work with a CMOS drawing, you should select these (left mouse button while pointing).