Josefina Alvarez* (jalvarez@nmsu.edu), Department of Mathematics, New Mexico State University, Las Cruces, NM 88003-8001. Griddy Mathematics (The art and the mathematics of grids). Preliminary report.

"How do you make a big head? How do you make a nose? I’m not sure! But by breaking the image down to small units, I make each decision into a bite-size decision.” This is how the painter Chuck Close explains his gridded portraiture. Optical artists such as Victor Vasarely, Brigit Riley and Douglas Peden have taken grids to a higher level of complexity by using mathematically manipulated grids, a technique called grid warping. Additionally, interesting effects can be obtained if one incorporates mathematical tools associated with computer drawing applications. (Received September 22, 2005)