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Ronald A Fintushel, Department of Mathematics, Michigan State University, East Lansing, MI 48824, and **Ronald J Stern***, Department of Mathematics, UC Irvine, Irvine, CA 92617. *If smooth 4-manifolds are puzzling, what are the pieces?* Preliminary report.

We describe how starting with a decomposition of a manifold M that is a connect sum of blow-ups of complex projective planes into a union of 4-balls, there are null-homologous tori upon which surgeries result, in the case when SW invariants are defined, in an infinite number of smooth structures on M . (Received September 14, 2009)