Meeting: 1003, Atlanta, Georgia, AMS CP 1, AMS Contributed Paper Session

1003-52-287 **Edwin H. Smith*** (esmith@jsu.edu), MCIS Department, Jacksonville State University, Jacksonville, AL 36265. *Packing for Frontier Life in Three Dimensional Space*.

The field of packing and covering problems in the Euclidean plane has become quite the civilized place: the boundaries are rather clear and some are long established. In contrast, one may be reminded of the wide open spaces of the old west when surveying similar results in 3 dimensions: non-trivial density bounds are few and most of those which exist can probably be pushed back much farther. In this talk, a brief survey of results in 2 and 3 dimensions is given, including a new packing bound for centrally symmetric convex bodies in 3 dimensions. (Received September 07, 2004)