1023-05-1125 **Daniel Kral** and **Robin Thomas*** (thomas@math.gatech.edu), School of Mathematics, Georgia Tech, Atlanta, GA 30332. *Coloring graphs on surfaces with all faces even.* Preliminary report.

Let G be a graph drawn (without crossings) on a fixed surface such that every face is bounded by a walk of even length, and let k be an integer. Can G be properly k-colored? This question is interesting only when $k = 3$. We settle that case by proving a coloring extension theorem that implies a polynomial-time algorithm. (Received September 25, 2006)