1037-05-127Frederic Havet* (fhavet@sophia.inria.fr), 2004 route des Lucioles, BP93, 06902Sophia-Antipolis, France, and Daniel Kral, Jean-Sebastien Sereni and Riste Skrekovski.
Facial coloring.

A vertex coloring of a plane graph is *l*-facial if every two vertices joined by a facial walk of length at most *l* receive distinct colors. It has been conjectured that every plane graph has an *l*-facial coloring with at most 3l + 1 colors. We improve the currently best known bound and show that every plane graph has an *l*-facial coloring with at most $\lfloor 7l/2 \rfloor + 6$ colors. (Received January 29, 2008)