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Lifting tiles around a face.

An old problem is to determine whether a given convex tiling C^d of $\mathbb{R}^d$ is a projection of some convex polyhedron P in $\mathbb{R}^{d+1}$ (C. Davis, F. Aurenhammer, P. McMullen). There is a number of useful and handy criteria of being such projection. Most of the criteria deal with global structure while usually we can construct just local objects (expecting them to join together later). We provide a new local criterion which could be of use in cases when we know just local structure well. This criterion connects (a bit unexpectedly) the topic with a topic of polytopal fans.