1070-05-182 Luis G. Serrano* (serrano@lacim.ca), Laboratoire de Combinatoire et d'Informatique, Universite du Quebec a Montreal, CP 8888, Succ. Centre-ville, Montreal, Quebec H2X 3Y7, Canada, and Christian Stump (christian.stump@lacim.ca), Laboratoire de Combinatoire et d'Informatique, Universite du Quebec a Montreal, CP 8888, Succ. Centre-ville, Montreal, Quebec H2X 3Y7. k-triangulations, k-fans of Dyck paths, and pipe dreams.

We present a bijection between k-triangulations of an n-gon and k-fans of Dyck paths (both generalizations of well known Catalan objects). This bijection goes through widely used objects in combinatorics such as pipe dreams and flagged tableaux. We discuss a generalization of the associahedron obtained in this manner, and study some of its properties. If time permits, we will mention a conjectured cyclic sieving phenomenon. This is based on arXiv:1009.4690 (Received February 10, 2011)