Two planar polygonal complexes (i.e. polygonal decompositions of the plane) are said to be locally isomorphic if every finite connected subcomplex of one embeds isomorphically in the other, and vice versa. This talk will present the concept of local isomorphism in the context of a single example—the discrete hyperbolic plane $H$. I will explore the local isomorphism class $(H)$ of this hyperbolic complex, and demonstrate that $(H)$ is uncountably infinite by providing a constructive description of all of its elements. (Received September 16, 2014)