While there are many simple topological constructions of one-cusped (finite volume, complete) hyperbolic 2- and 3-manifolds, building higher-dimensional examples has proven much more difficult. In fact, only last year Kolpakov and Martelli constructed the first one-cusped hyperbolic 4-manifolds. I will explain why, for each $k > 0$, there is a constant $n_k$ such that none of the known methods of building hyperbolic manifolds can produce a $k$-cusped hyperbolic $n$-manifold for any $n \geq n_k$. For example, for $k = 1$ we can take $n_k = 30$. I will also describe some more recent work relating the geometry of anisotropic integral quadratic lattices to cusp shapes of arithmetic hyperbolic $n$-manifolds. (Received January 19, 2014)