Bitwise curves are by definition, smooth curves (without cusps) formed from arcs of circles with a variety of radii. What is intriguing is that any curve can be constructed by smoothly joining arcs from appropriately-sized circles. This presentation will highlight a variety of these curves as well as their cousins, piece-wise curves. It will explain methods of construction, provide a proof of one method in particular, and then go on to examine the generation of new families of curves and their application to decorative ornamentation. (Received August 26, 2016)