The marriage of coordination chemistry and catalysis enables metal ions to work in partnership in the active-template synthesis of the smallest molecular trefoil knot reported to date. In their Communication on page 12280 ff., D. A. Leigh et al. describe how one copper(I) ion entangles an acyclic building block to create a loop in the ligand whilst a second copper(I) ion gathers the ligand’s reactive end groups, threads the loop, and catalyzes the covalent capture of the 76-atom knot by an alkyne–azide “click” reaction.