The recent targeting of cultural heritage during conflict, including the 2015 destruction of Roman-era temples in Palmyra, Syria, by the Islamic State, has led to many new initiatives that seek to fight destruction with digital technologies. These projects recreate threatened or destroyed cultural artifacts or sites by developing 3D digital models. They thus apply new technology towards an old goal of creating 3D models of non-Western cultural heritage for Western audiences (including, e.g., plaster casts and stereoscopic photography). But digital collecting does not create neutral, truthful, exact reproductions of artifacts and sites. Digitization is not an automatic process; it requires the intervention of humans, and these interventions are based on our biases, assumptions, hopes, and hatreds. The talk will point out a number of problematic areas in digital collecting and will then compare these projects to alternative models of digital collecting offered by contemporary artistic recreation projects. The talk will conclude by offering a few draft best principles for digital modeling of cultural heritage: transparency, radical hospitality, and the embrace of dissonance.