The creation of 3D models of cultural monuments and archaeological sites is still an expensive endeavor. Methods are presented, that have been developed at the University of Leuven and ETH Zurich, in order to alleviate these problems of cost. These include techniques to capture 3D shapes and to texture their surfaces. The underlying strategy is to only use consumer grade hardware. Part of this technology takes the form of a webservice, to which users can upload images, and by which 3D models are sent back in return. This limits the cost and eases the use by cultural heritage professionals. Also, grammar based shape descriptions for architectural styles have been elaborated. They allow for the efficient reconstruction of large-scale sites, like entire ancient cities. A nymphaeum building at the Turkish site of Sagalassos and the well-known Pompeii ruins are taken as cases in point to demonstrate the use of these technologies.