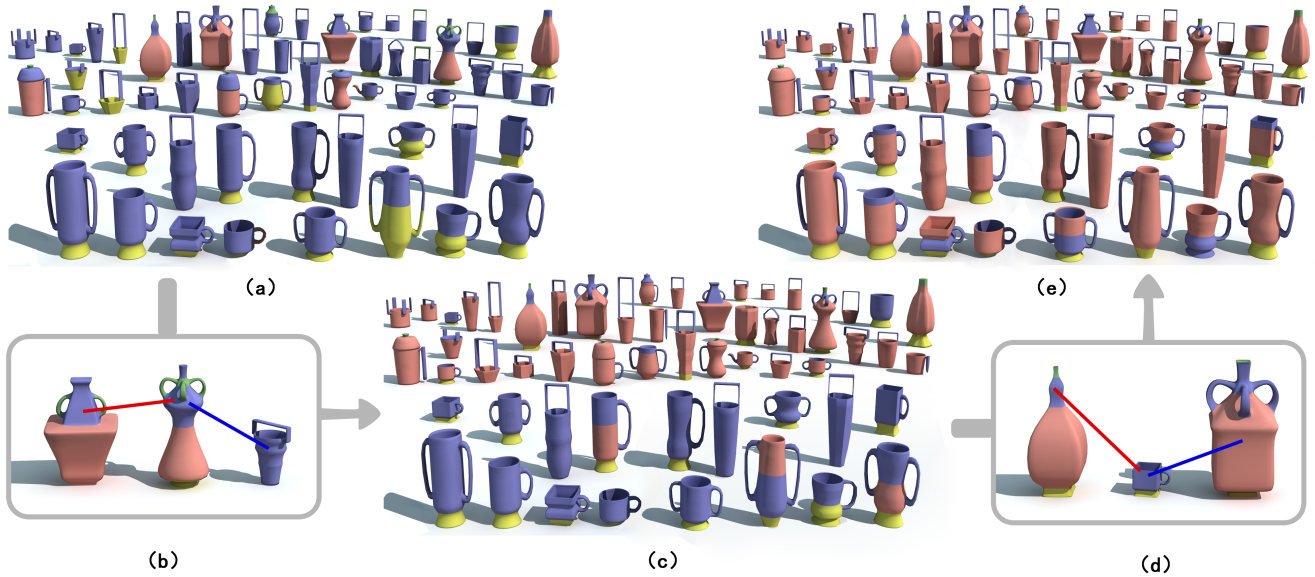
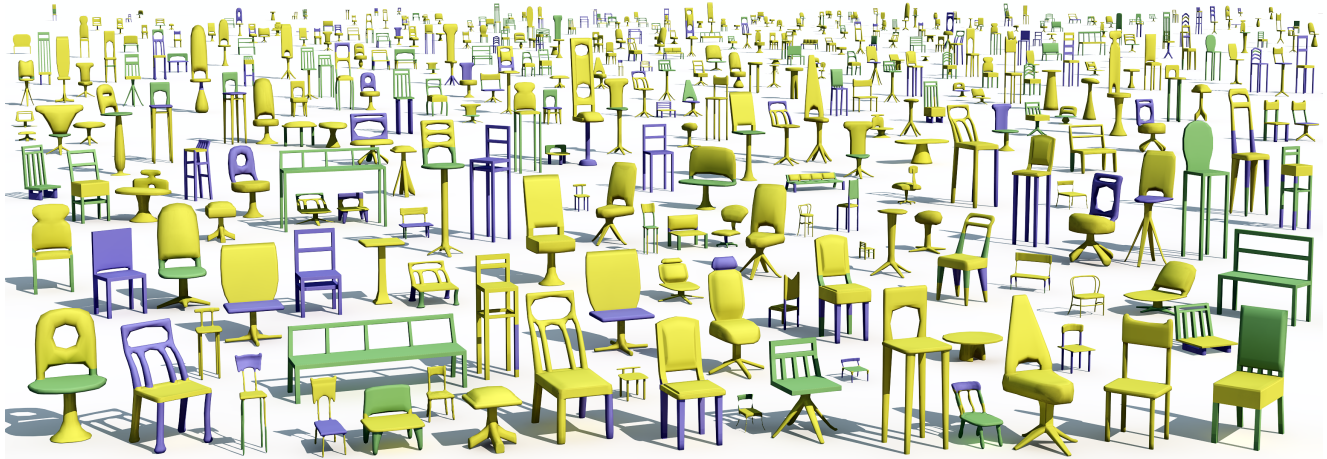


# Active Co-Analysis of a Set of Shapes: Supplementary Material

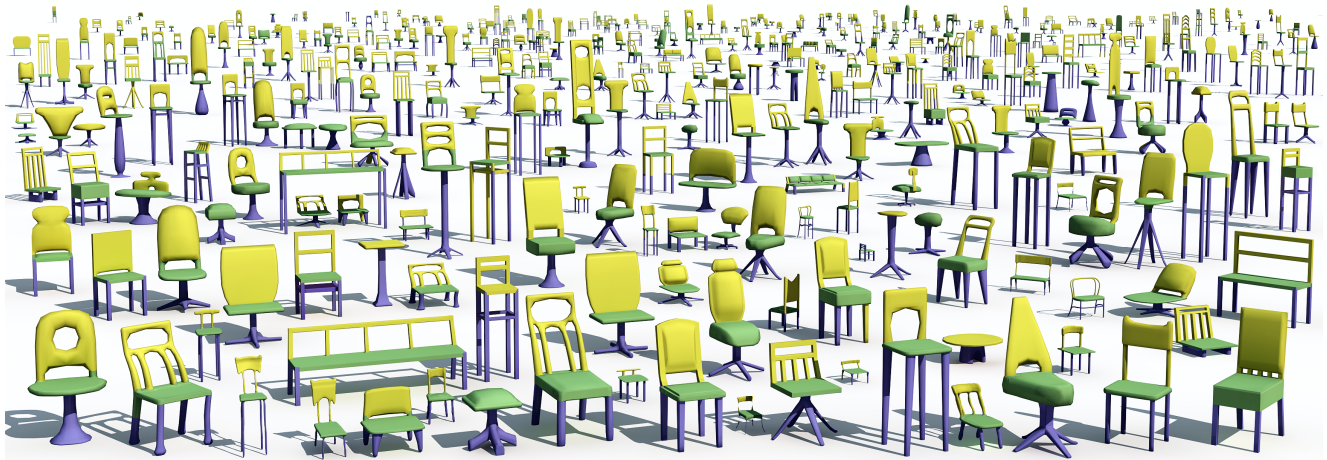
Yunhai Wang\*   Shmulik Asafi†   Oliver van Kaick‡   Hao Zhang‡   Daniel Cohen-Or†   Baoquan Chen\*  
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**Figure 1:** Two iterations in the active co-analysis of the large set of vases (a subset is shown). The input to the co-analysis is the initial unsupervised co-segmentation in (a). Notice how the constraints added by the user in (b) and (d) have a significant effect and refine the segmentation for several shapes.

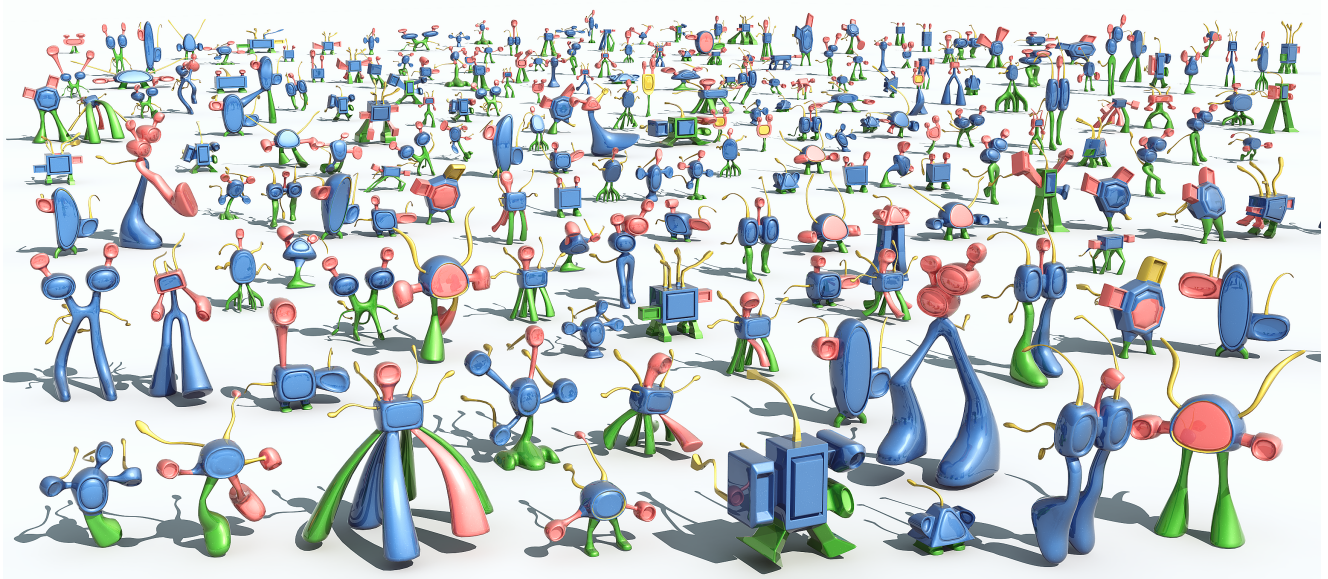


(a) The input to our active co-analysis (the result of an unsupervised co-segmentation)

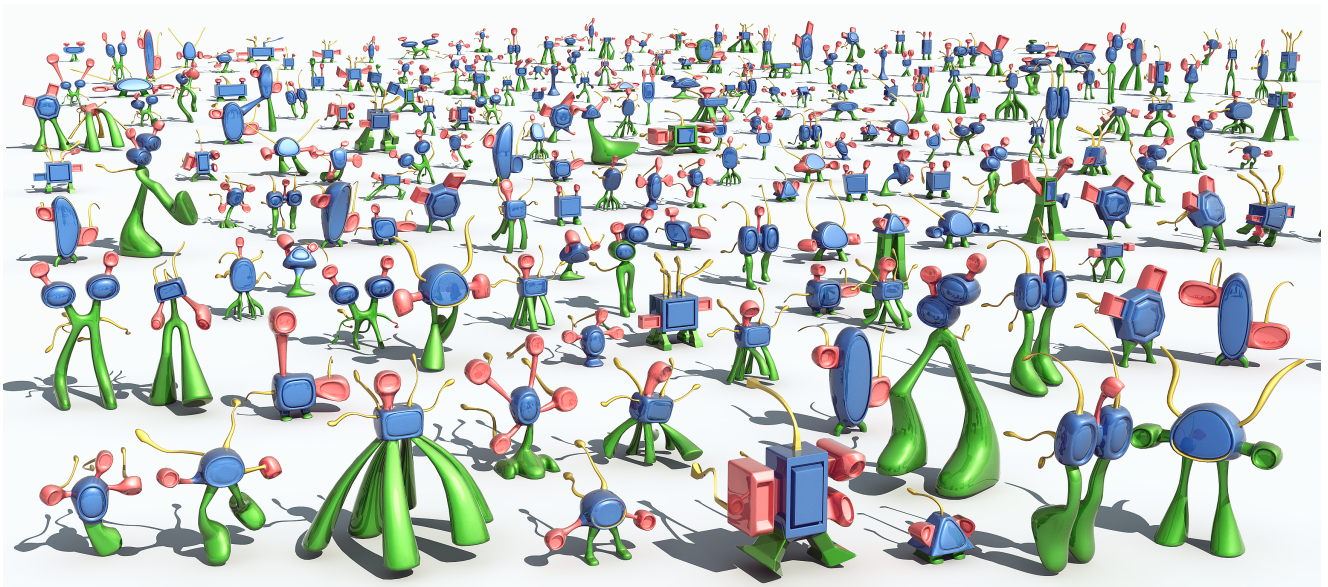


(b) Refined co-segmentation obtained with our active co-analysis

**Figure 2:** Results of our active co-analysis on a large set of chairs, which possesses 400 shapes and 2,832 super-faces. A user added 162 constraints to achieve this result. Note that since this set is notably large, it is not possible to compute an initial co-segmentation of all its super-faces with diffusion maps. Thus, the initial co-segmentation in this case was computed with the spring-embedding algorithm.

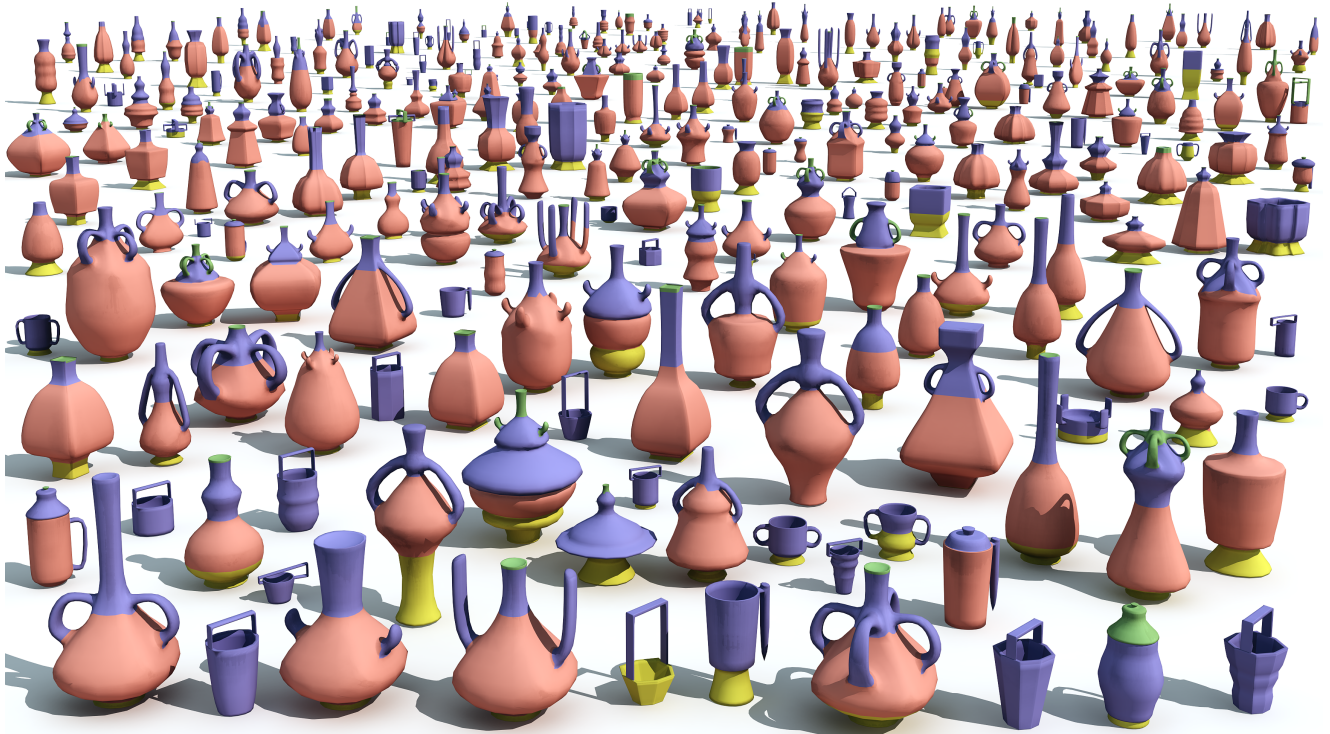


(a) *The input to our active co-analysis (the result of an unsupervised co-segmentation)*

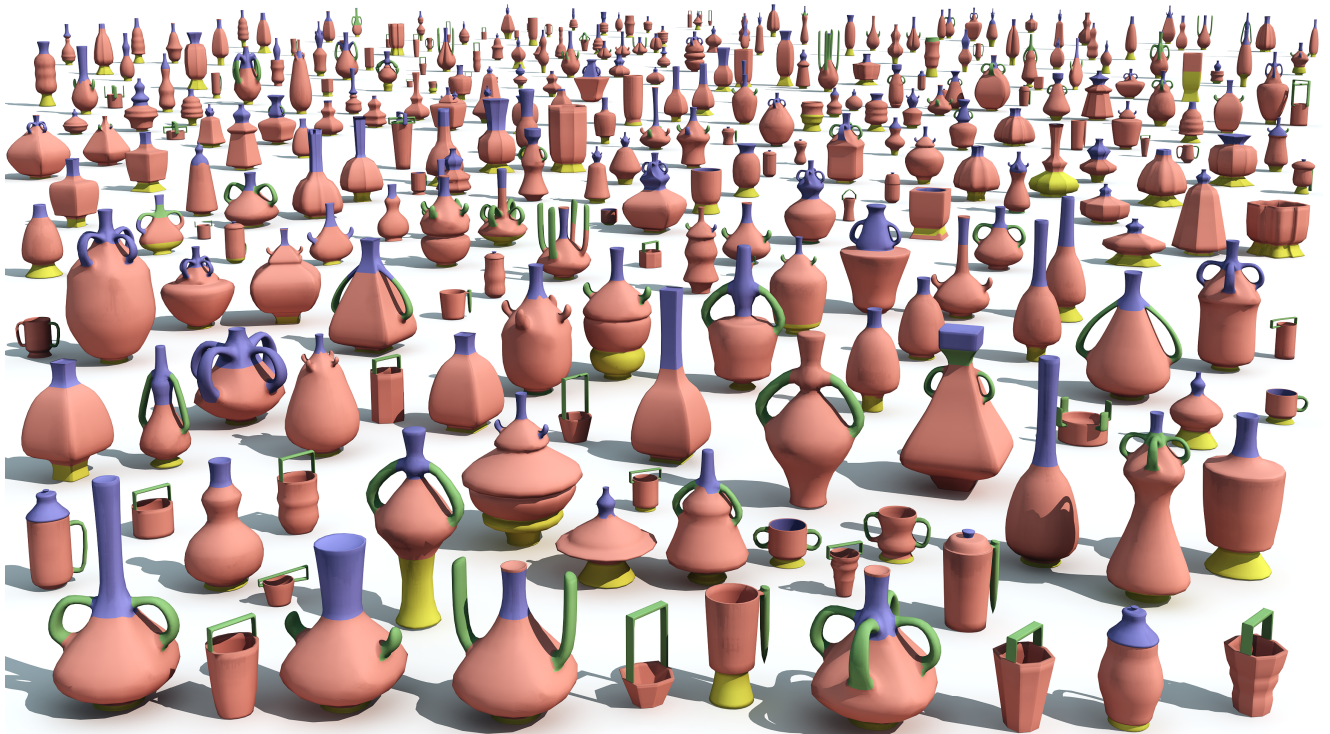


(b) *Refined co-segmentation obtained with our active co-analysis*

**Figure 3:** Results of our active co-analysis on the large “tele-aliens” set, which possesses 200 shapes and 1,869 super-faces. A user added 106 constraints to achieve this result.

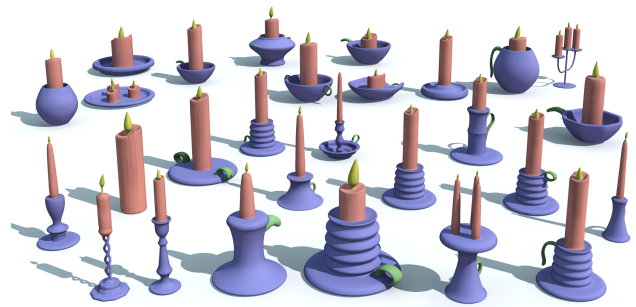
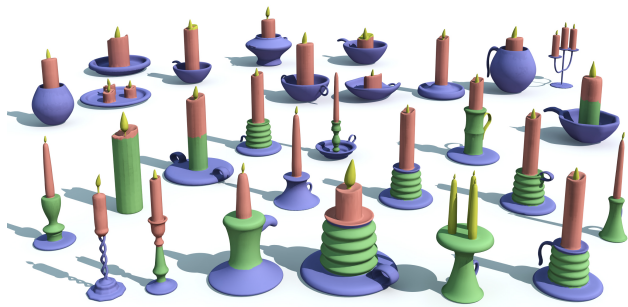


(a) *The input to our active co-analysis (the result of an unsupervised co-segmentation)*



(b) *Refined co-segmentation obtained with our active co-analysis*

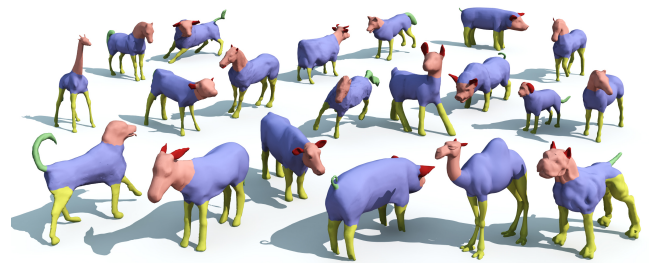
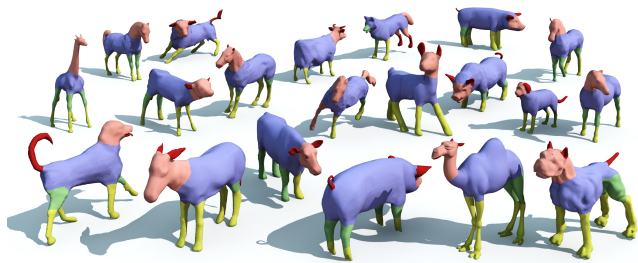
**Figure 4:** Results of our active co-analysis on a large set of vases, which possesses 300 shapes and 1,527 super-faces. A group of 15 users added 44 constraints on average to achieve such a result.



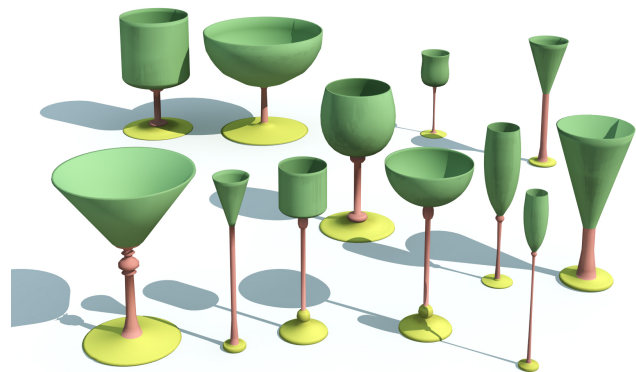
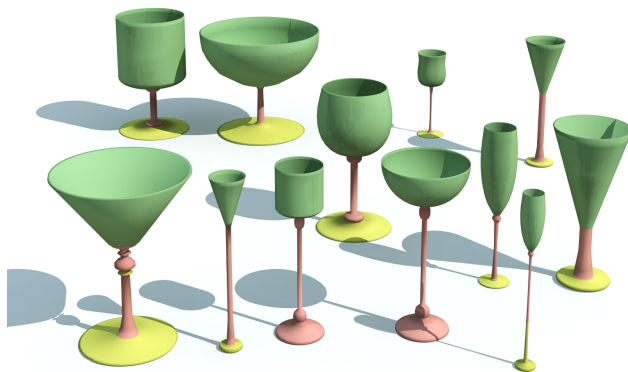
(a) Candelabra: 28 shapes, 164 super-faces, 24 constraints



(b) Chairs: 20 shapes, 236 super-faces, 36 constraints

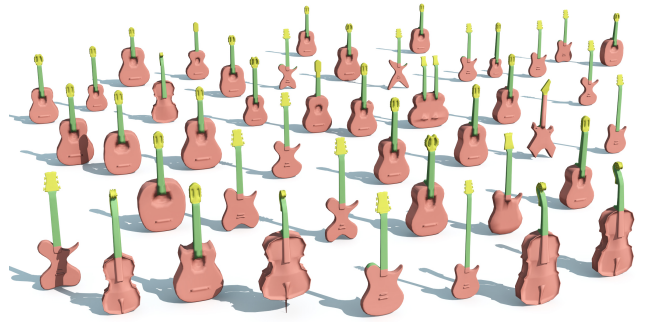
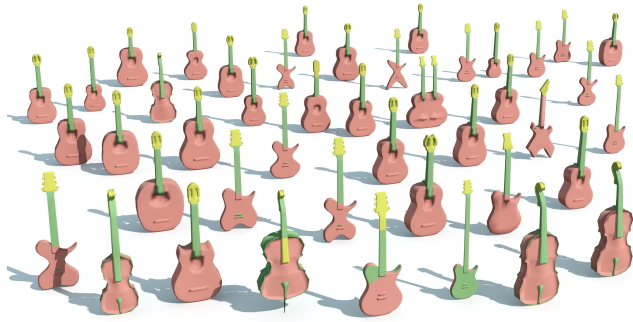


(c) Four-legged animals: 20 shapes, 264 super-faces, 69 constraints

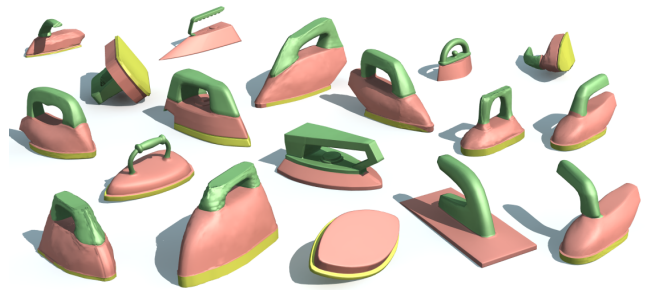
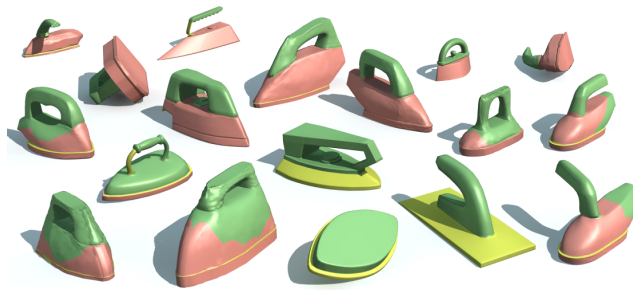


(d) Goblets: 12 shapes, 49 super-faces, 4 constraints

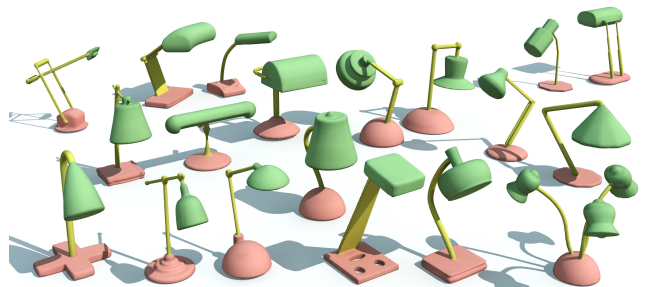
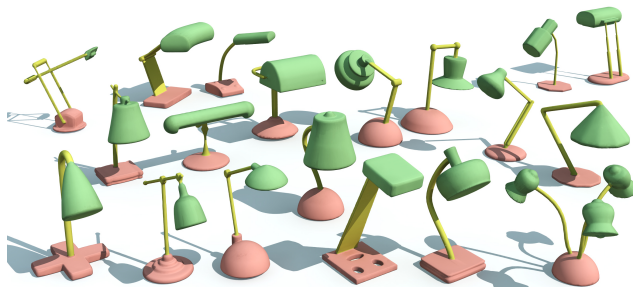
**Figure 5:** Results of our active co-analysis on all the sets of Sidi et al. (part 1 of 2). For each set, we show the initial unsupervised co-segmentation on the left and then the refined close-to-error-free co-segmentation on the right. We also present the minimal number of constraints needed to co-segment these sets. Note how the refined co-segmentations are consistent and how only a small number of constraints is necessary to achieve these results.



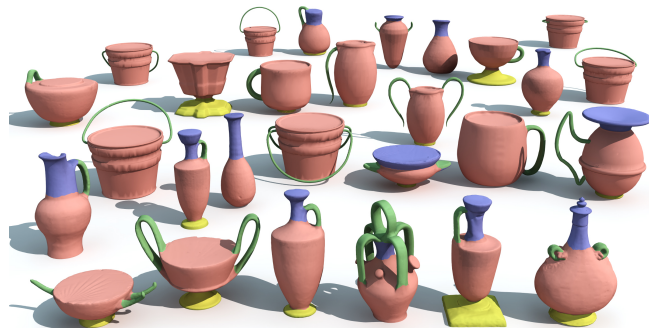
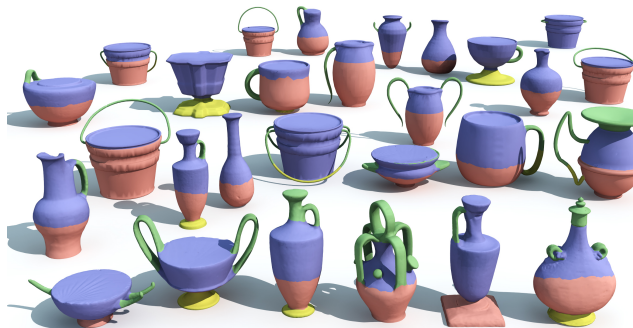
(a) Guitars: 44 shapes, 330 super-faces, 6 constraints



(b) Irons: 18 shapes, 138 super-faces, 26 constraints



(c) Lamps: 20 shapes, 97 super-faces, 2 constraints



(d) Vases: 28 shapes, 169 super-faces, 34 constraints

**Figure 6:** Results of our active co-analysis on all the sets of Sidi et al. (part 2 of 2) and a new set of irons. For each set, we show the initial unsupervised co-segmentation on the left and then the refined close-to-error-free co-segmentation on the right. We also present the minimal number of constraints needed to co-segment these sets. Note how the refined co-segmentations are consistent and how only a small number of constraints is necessary to achieve these results.