

Supplemental Material for:

Learning Detail Transfer based on Geometric Features

Sema Berkiten¹ Maciej Halber¹ Justin Solomon² Chongyang Ma³ Hao Li^{3,4,5} Szymon Rusinkiewicz¹

¹Princeton University ²MIT ³University of Southern California ⁴USC Institute for Creative Technologies ⁵Pinscreen

In this work, we use $\lambda \equiv 0.1$ for metric learning and three different patch sizes, \mathbf{n} , (7x7, 9x9, and 11x11) for the texture synthesis. We observe that different patch sizes give rise to different but viable synthesis results in which the bigger the patch size is the more the local coherency is preserved. This supplemental material includes results for shapes in clothing and furniture classes.

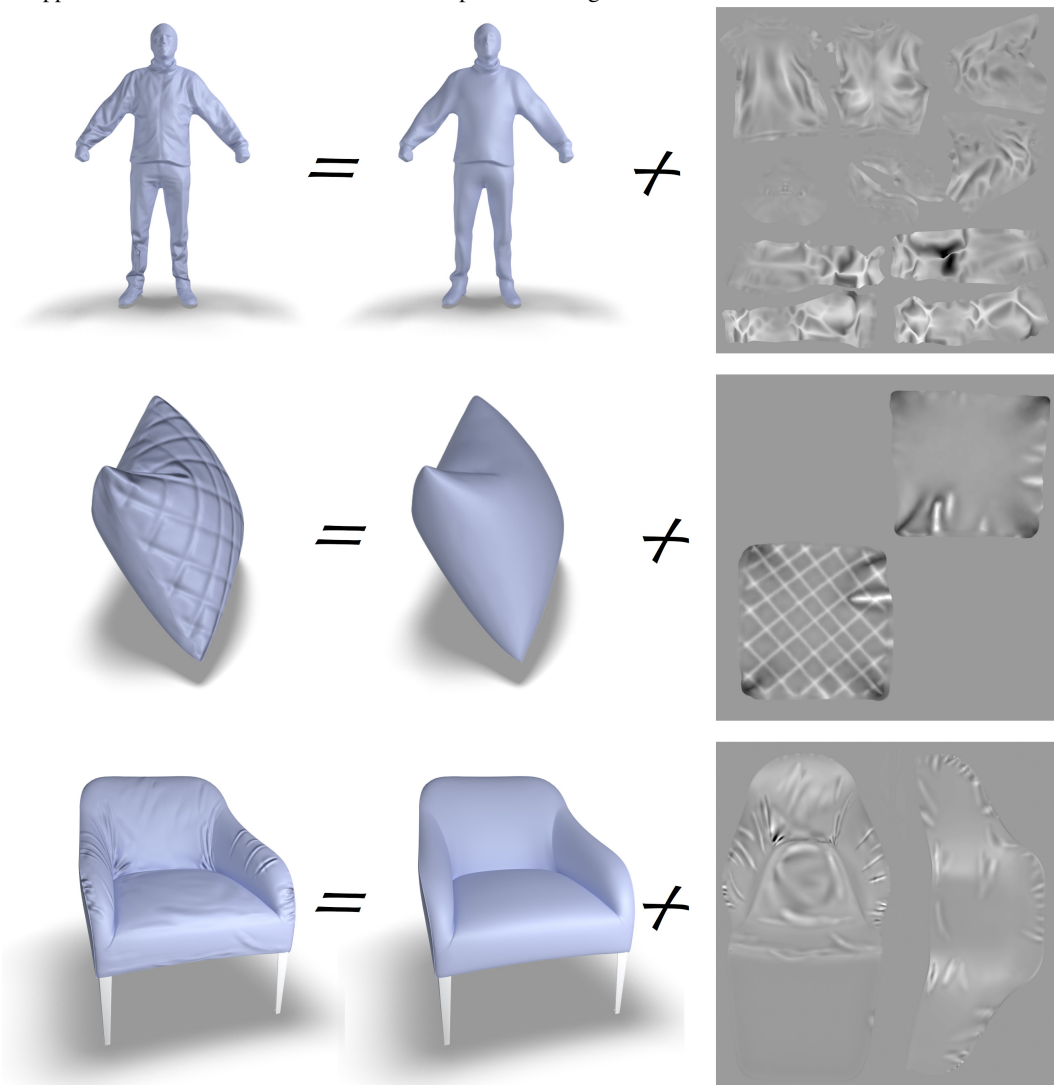


Figure 1: Source models.

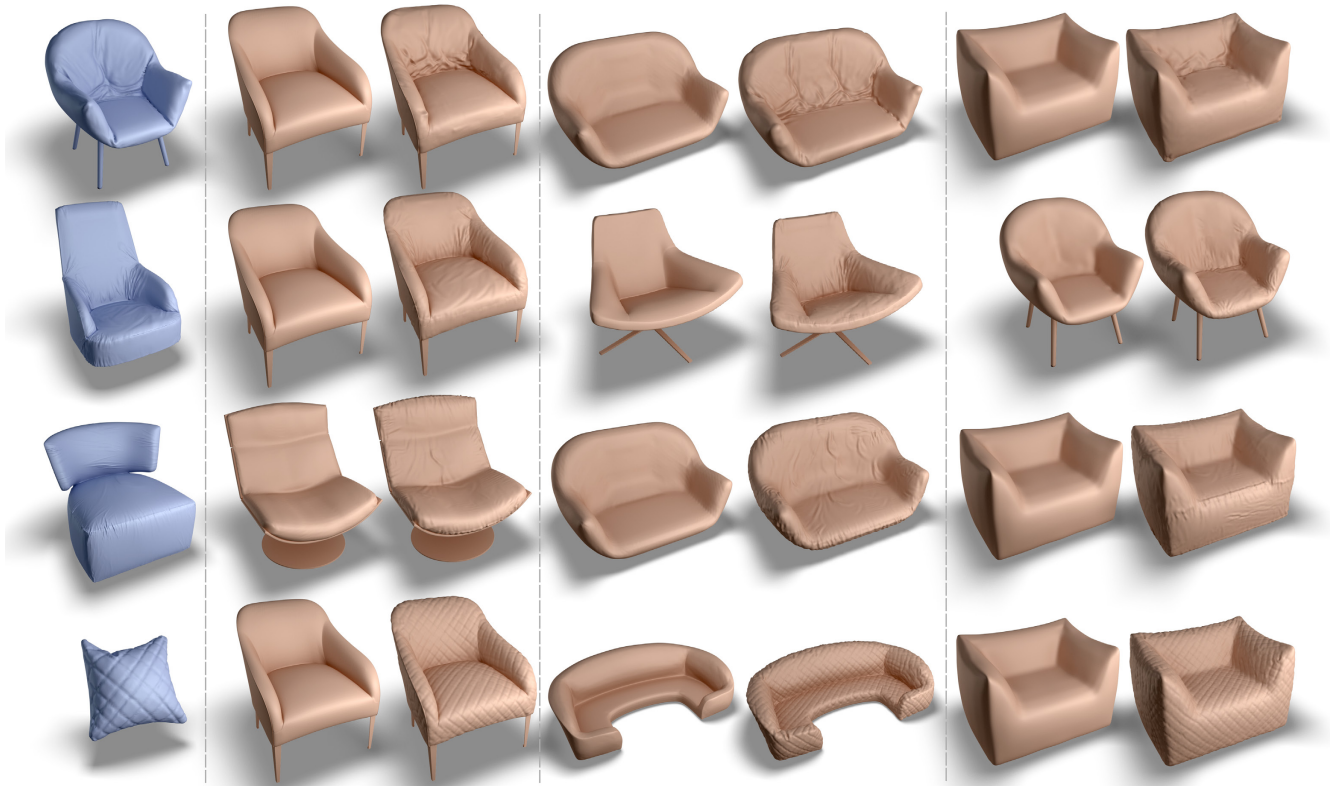


Figure 2: Detail transfer for furniture models. For each source mesh (left column), we transfer details to three different target meshes.



Figure 3: Detail transfer on faces from Merl Database from the source models in blue to the target models in pink.

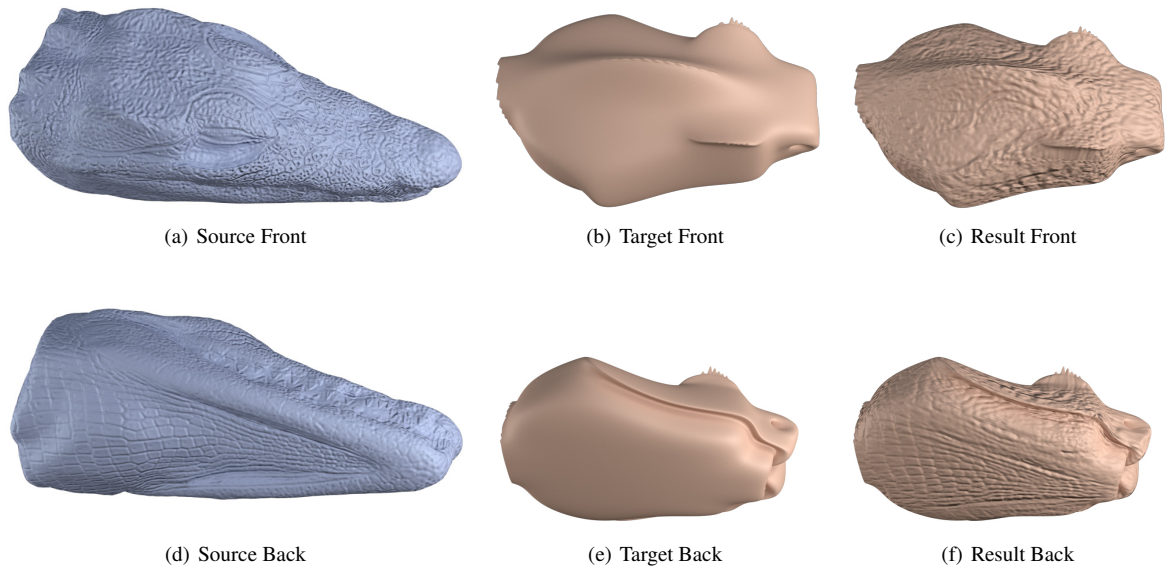


Figure 4: Detail transfer from a crocodile head to a snake head.

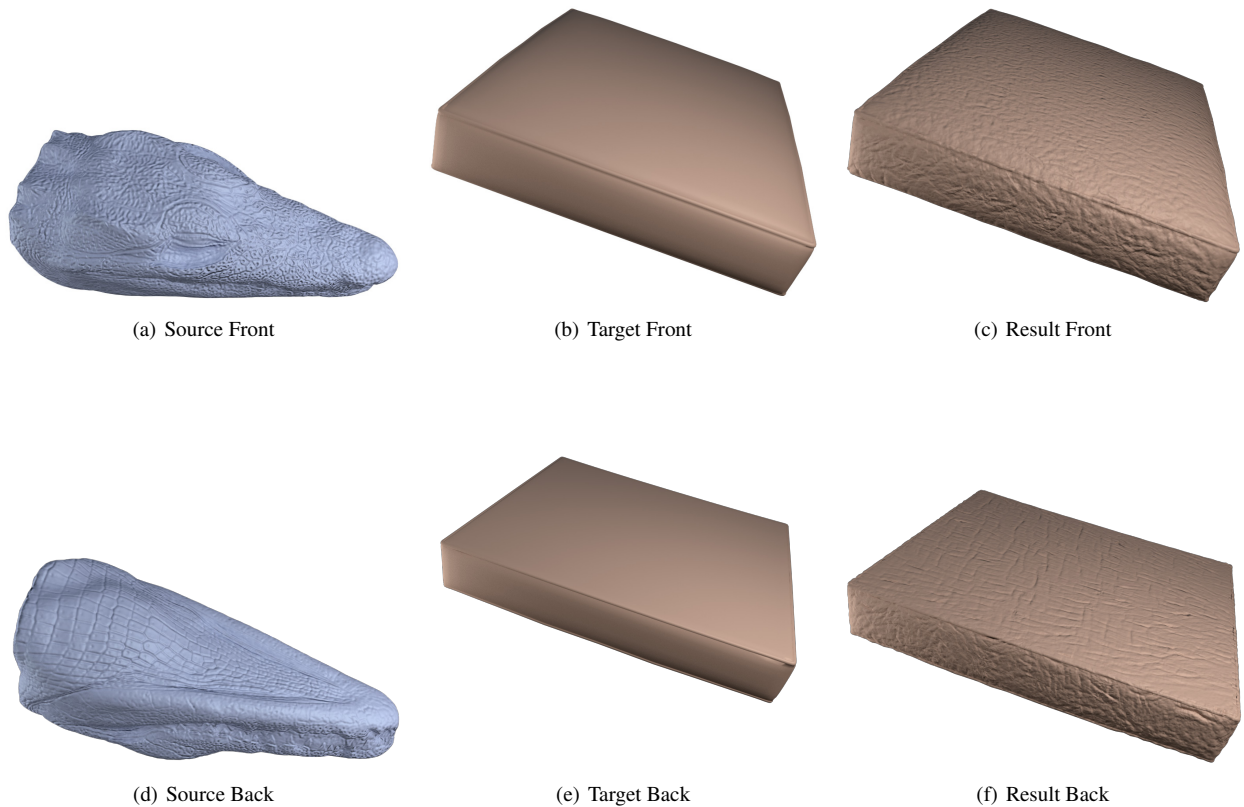


Figure 5: Detail transfer from a crocodile head to a cushion. For this semantically unrelated source-target pair, the detail transfer is mostly guided by the surface orientation.

Clothing. We generated a significant number of results using 6 high-quality source models and 11 low-polygonal target models. Our algorithm generates multiple results for each source-target pair for different patch sizes in the synthesis part of the algorithm.

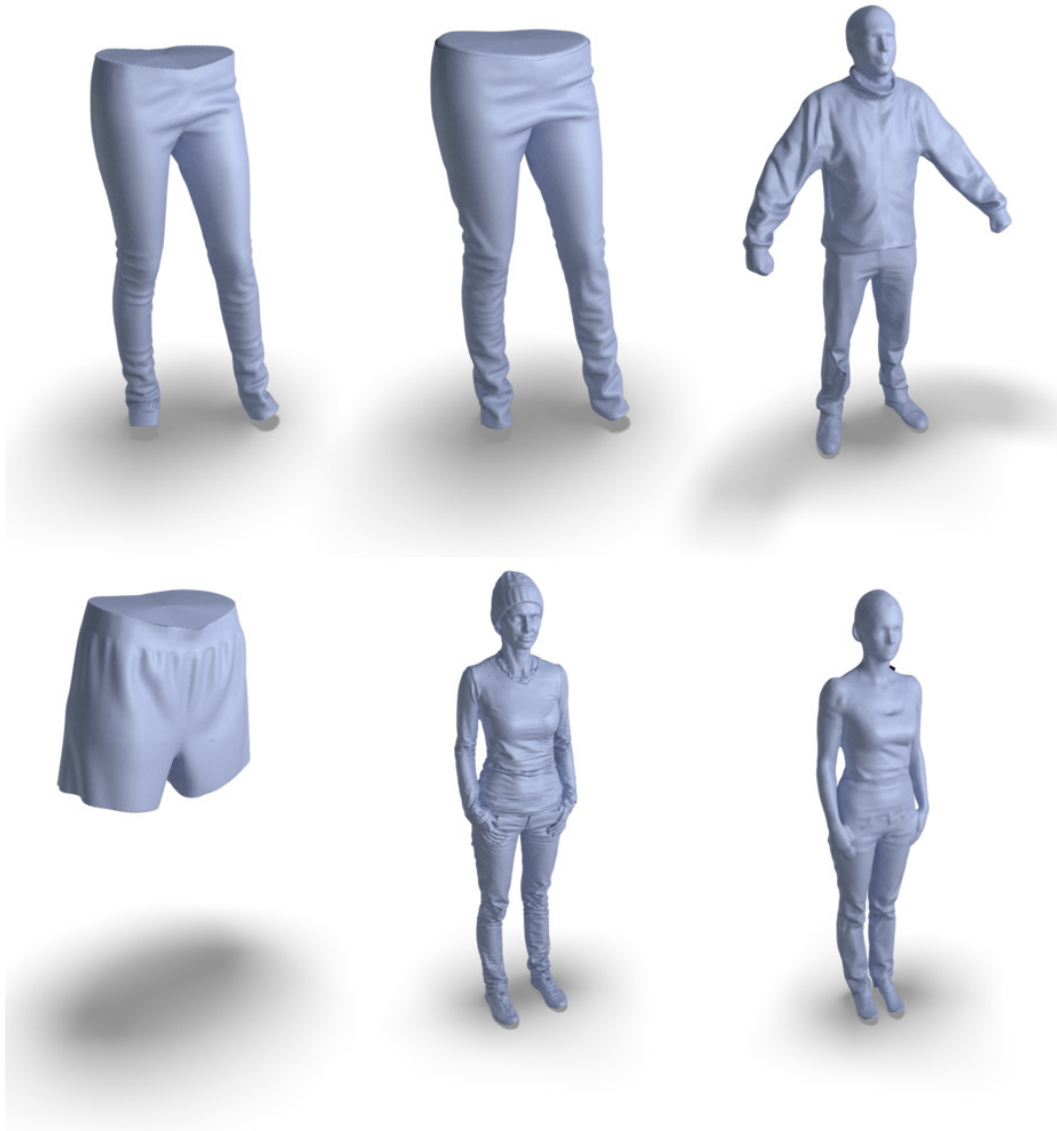


Figure 6: *Source models.*



Figure 7: Results.



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Figure 8: Results.



Figure 9: Results.

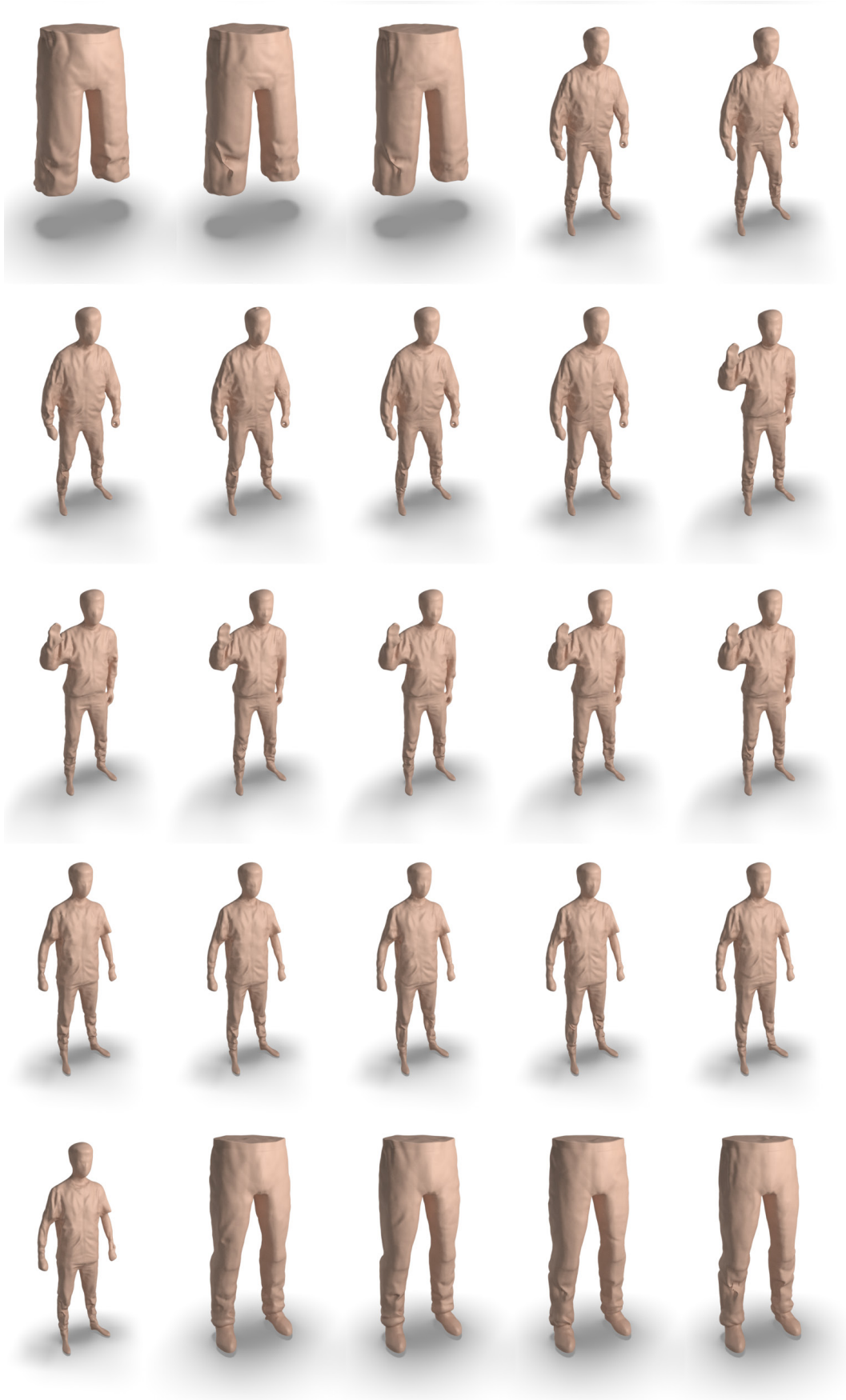


Figure 10: Results.

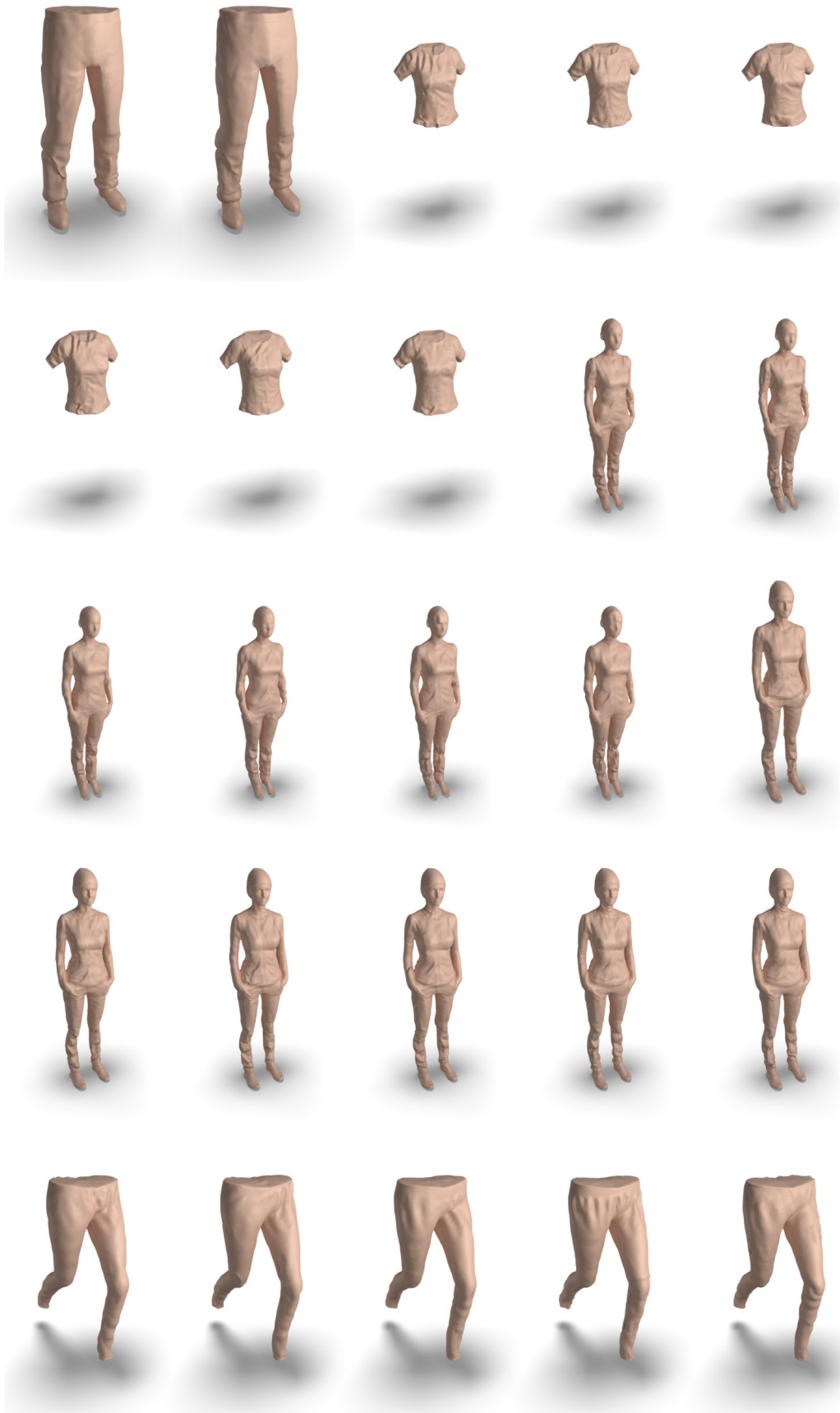


Figure 11: Results.



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Figure 12: Results.



Figure 13: Results.

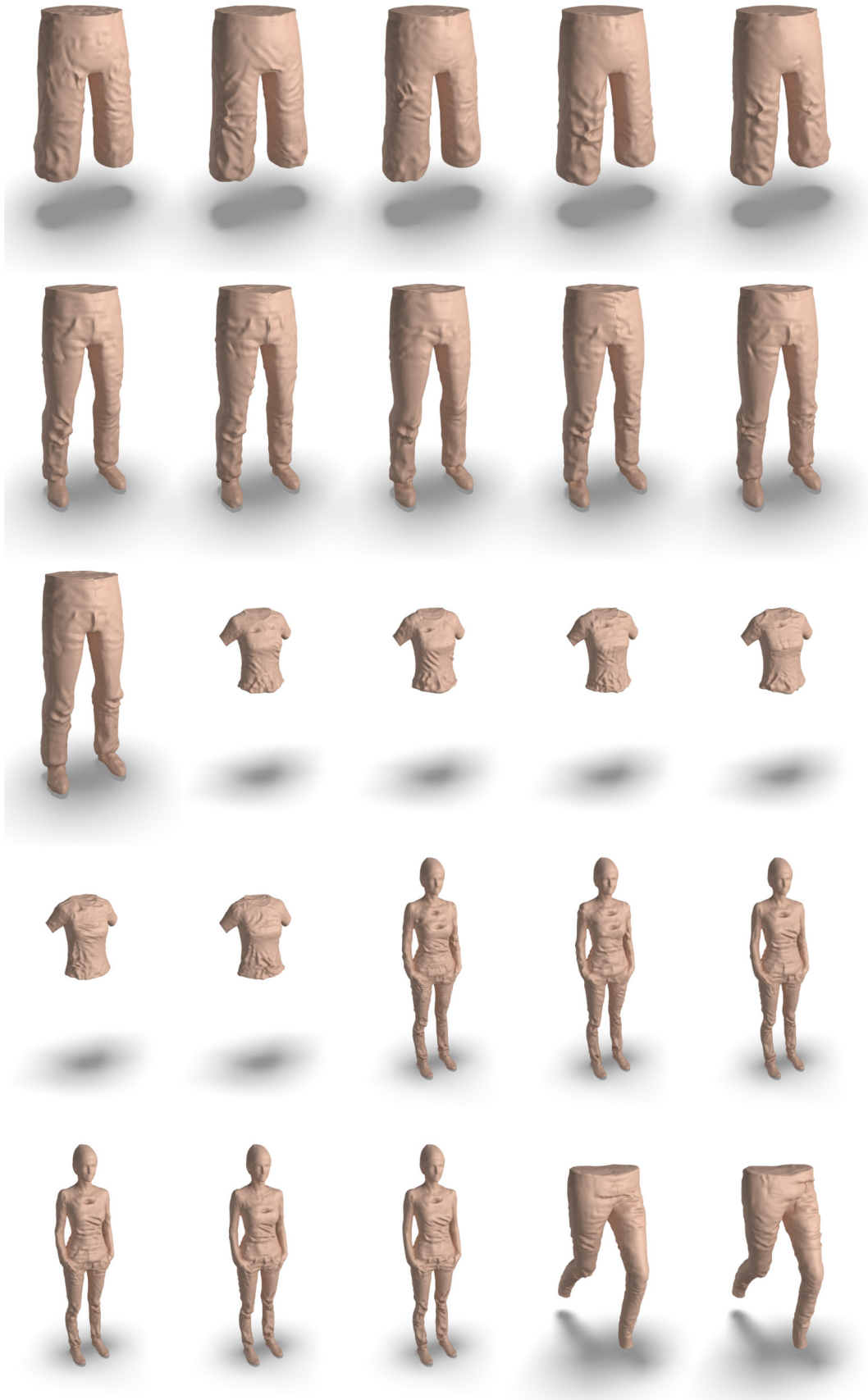


Figure 14: Results.



Figure 15: Results.

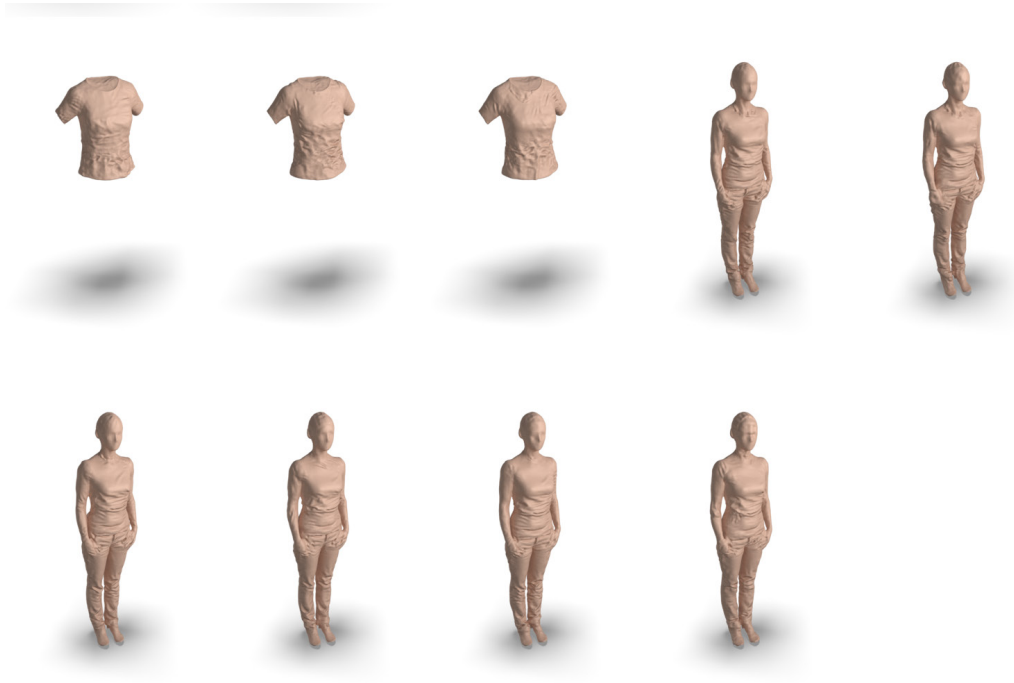


Figure 16: Results.

Furniture. We show results generated from 12 high-quality source models and 17 low-polygonal target models below. Our algorithm generates multiple results for each source-target pair for different patch sizes in the synthesis part of the algorithm.

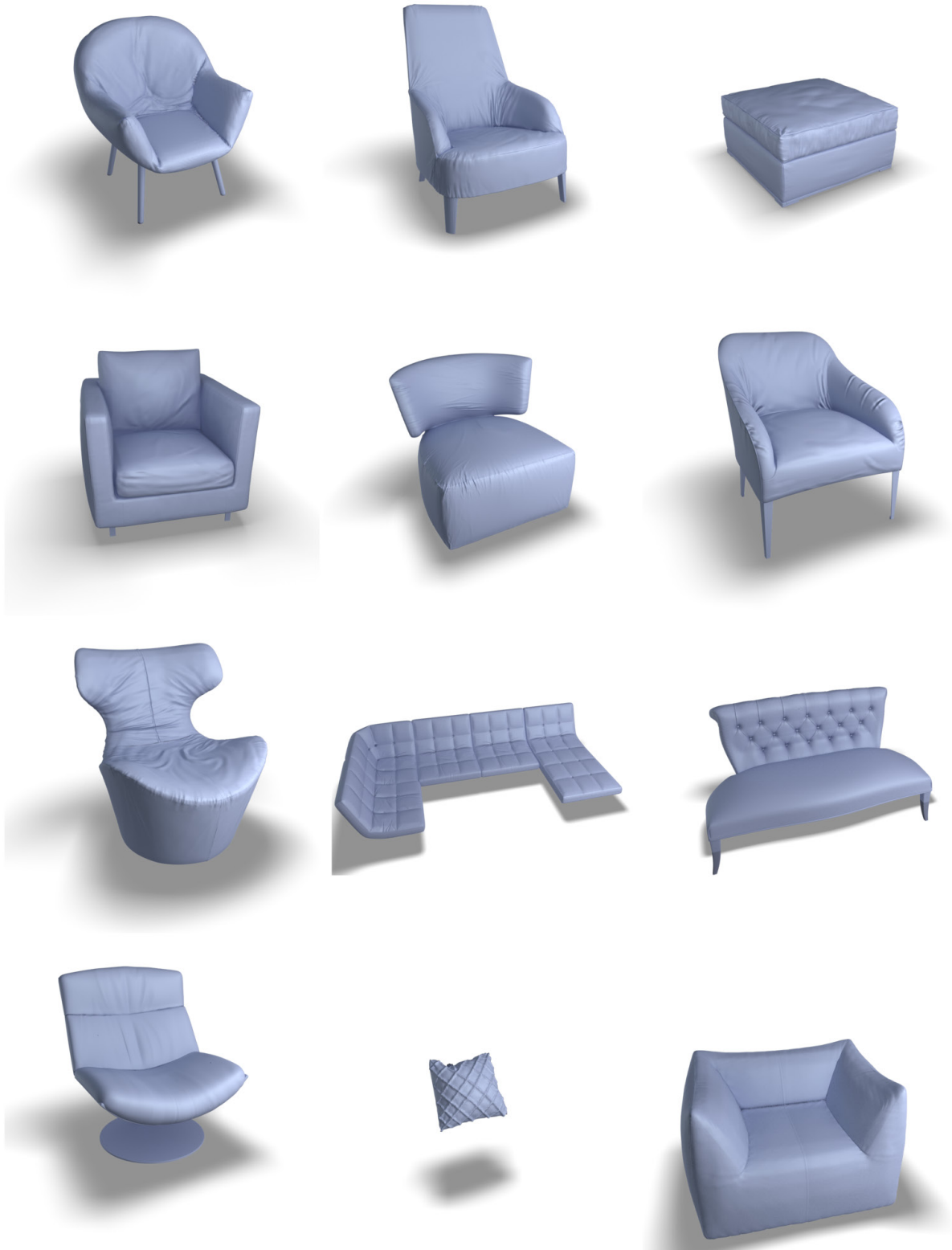


Figure 17: Source models.

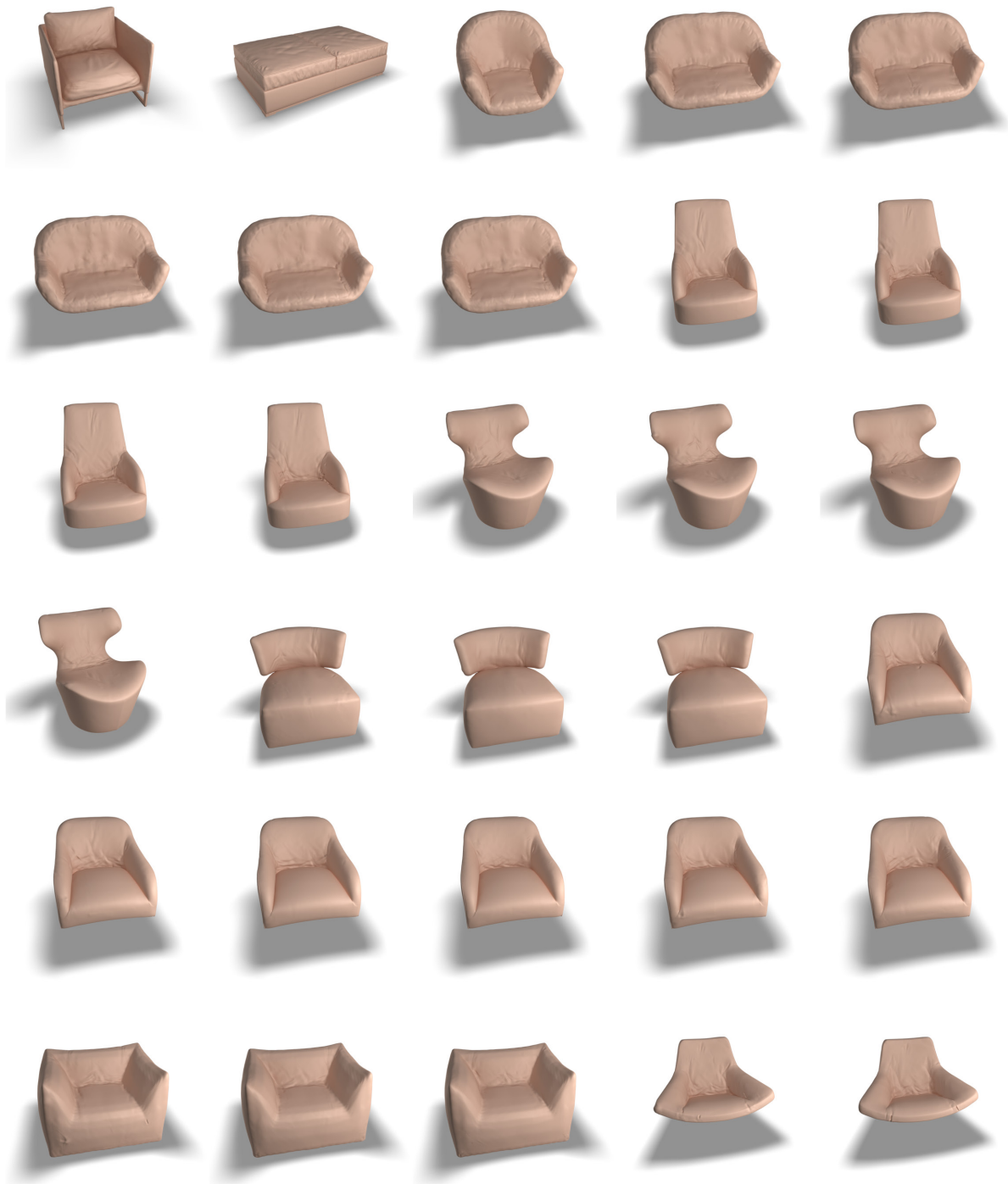


Figure 18: Results.

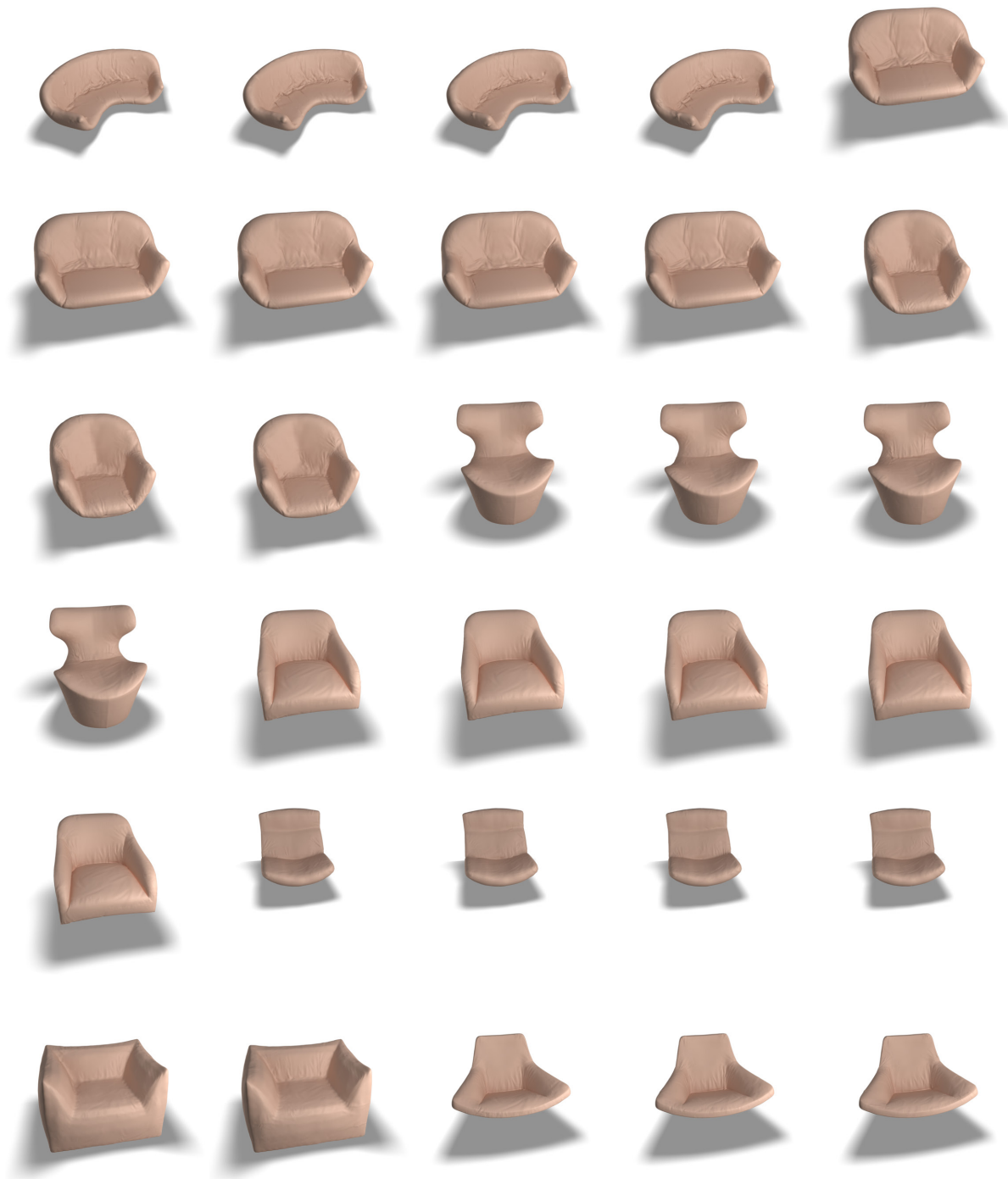


Figure 19: Results.

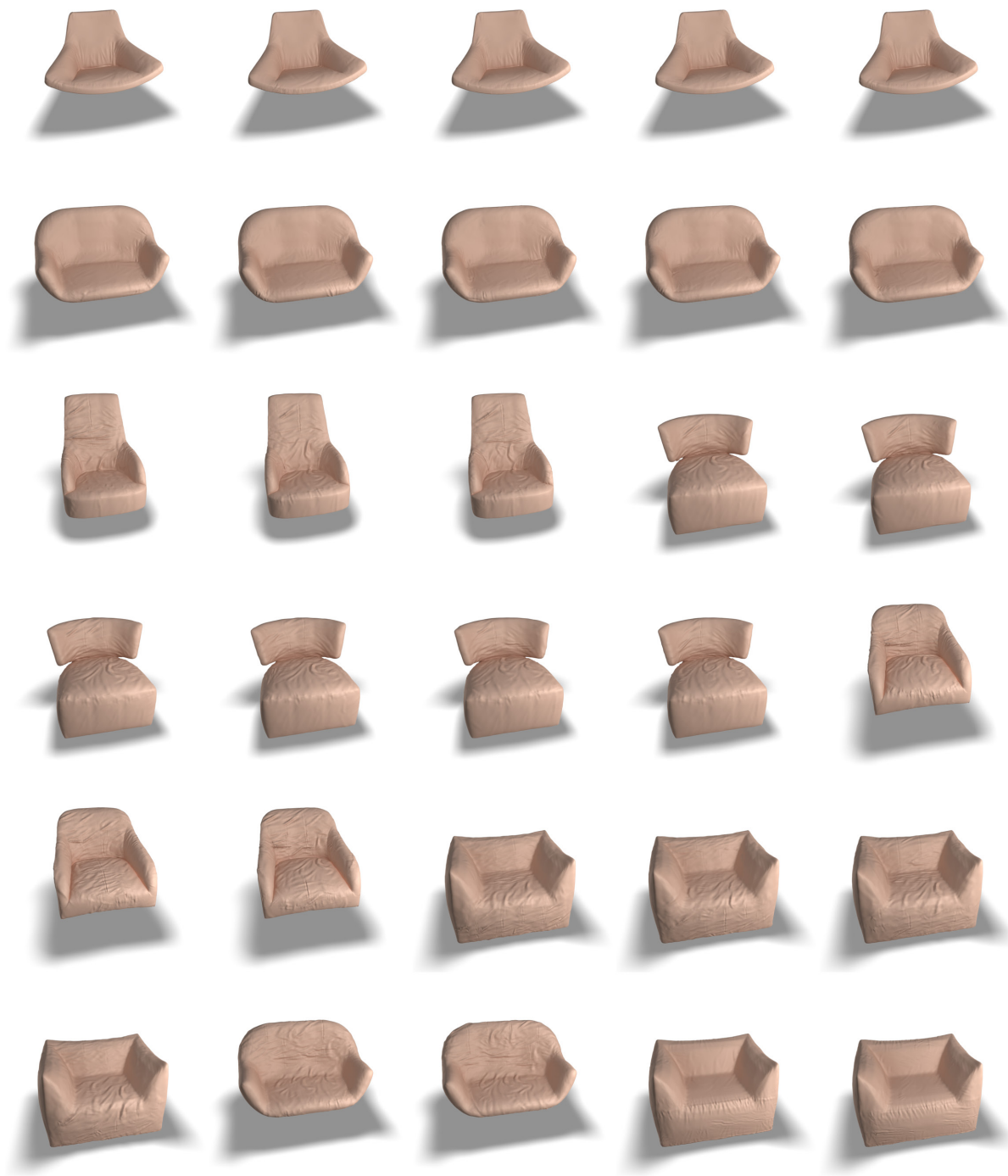


Figure 20: Results.

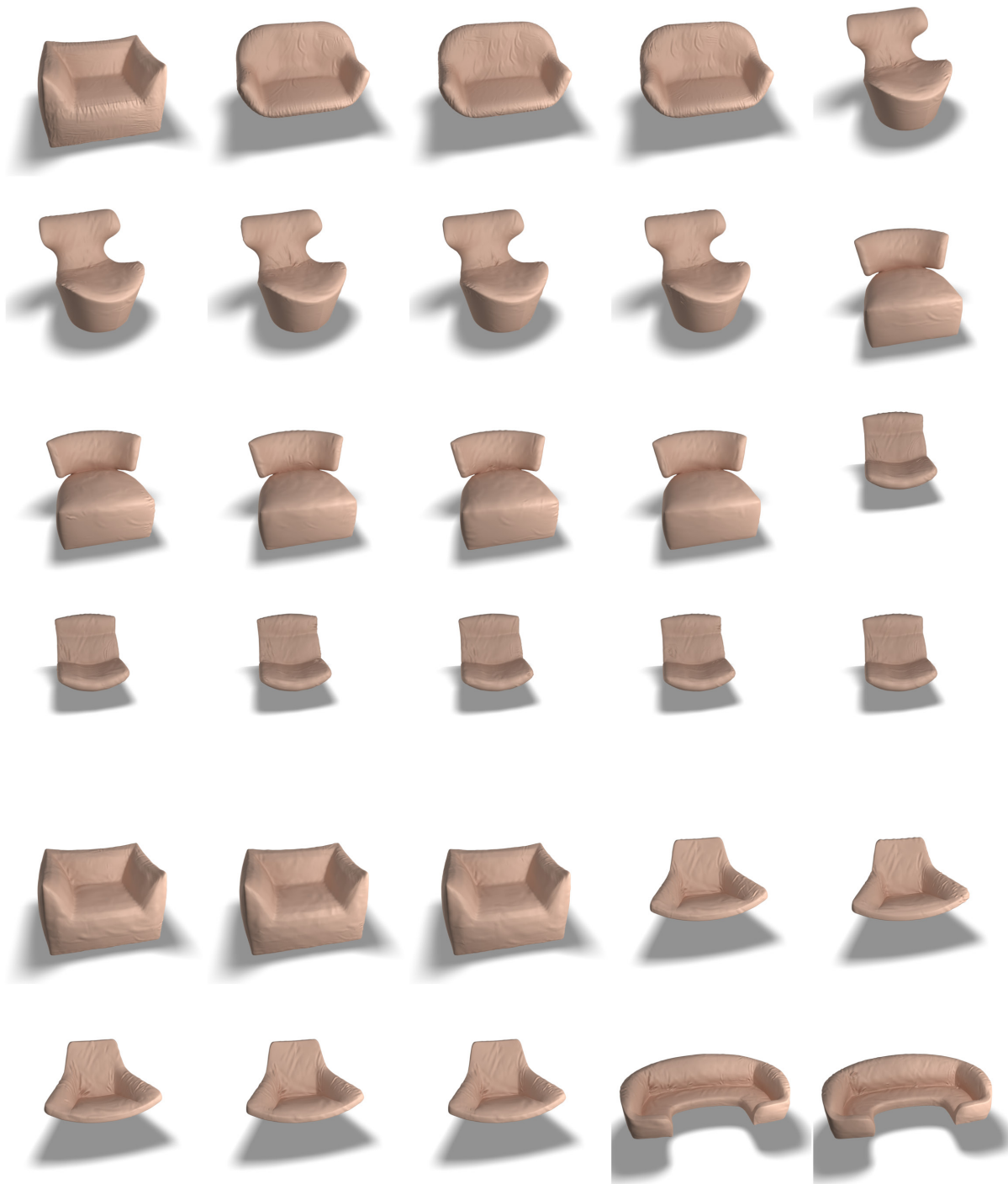


Figure 21: Results.

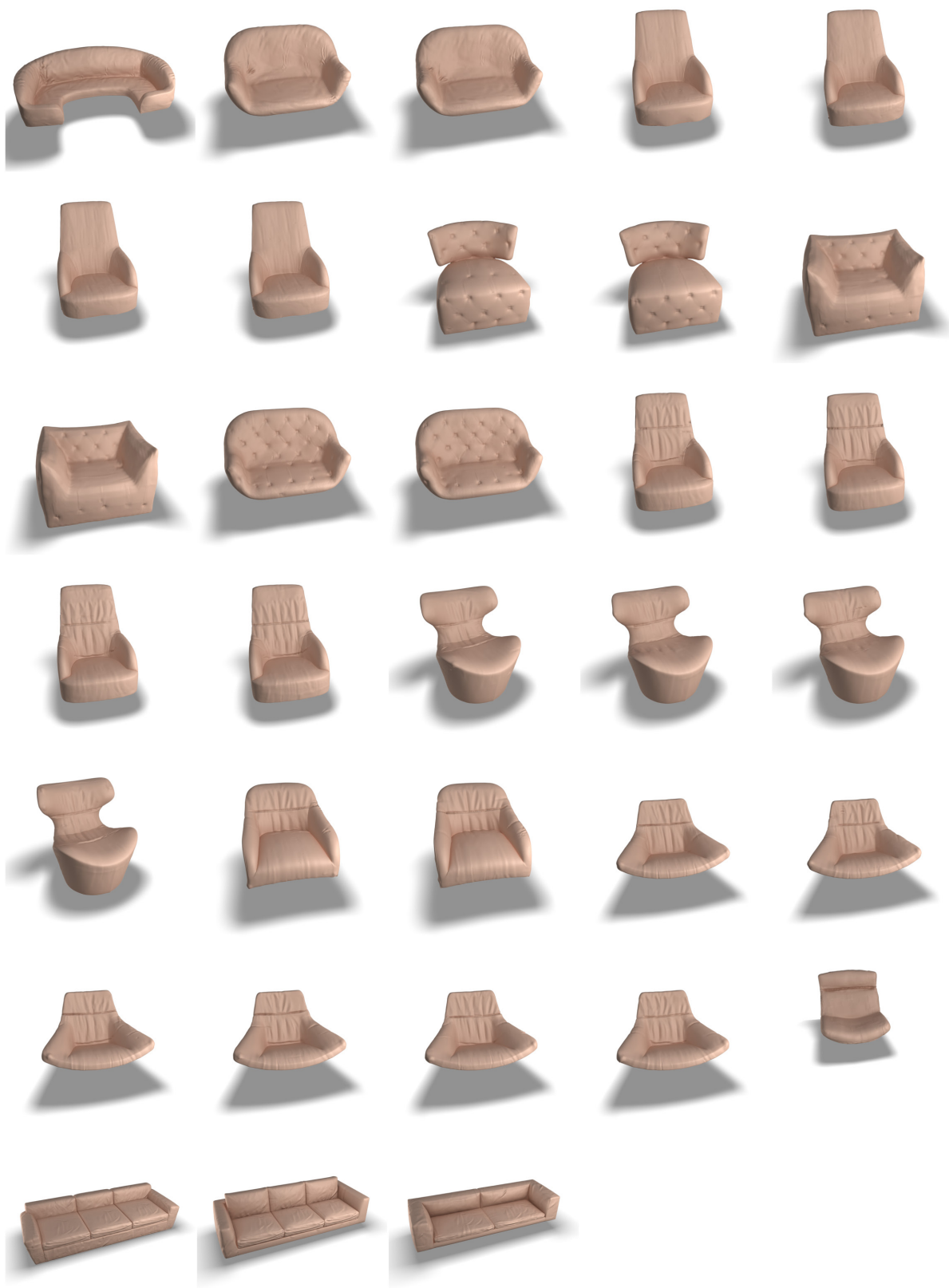


Figure 22: Results.