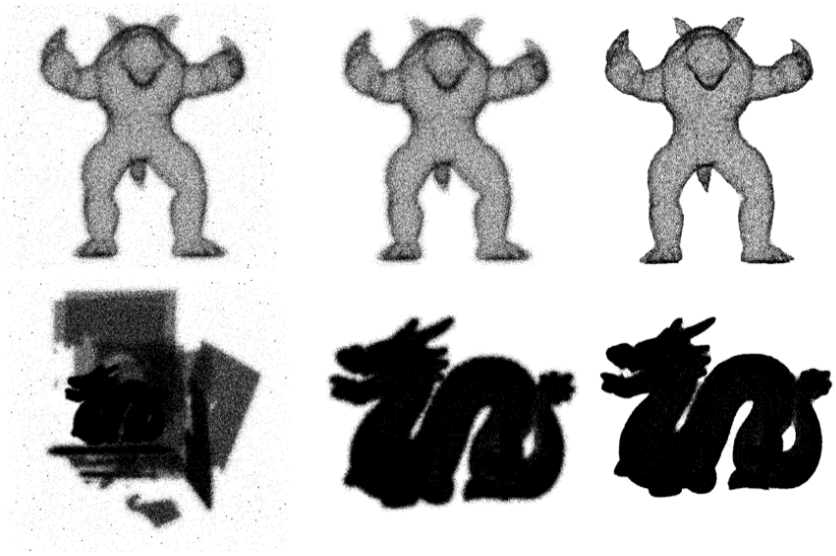


Figure 7: Two data sets with 5000 white noise points, outliers, and 1% Gaussian noise. The first column shows the contaminated input. The white noise and outliers are removed in the second column. The third column shows the final denoised point sets.

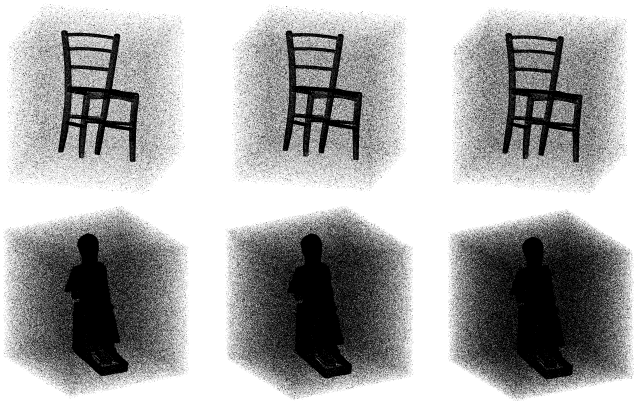
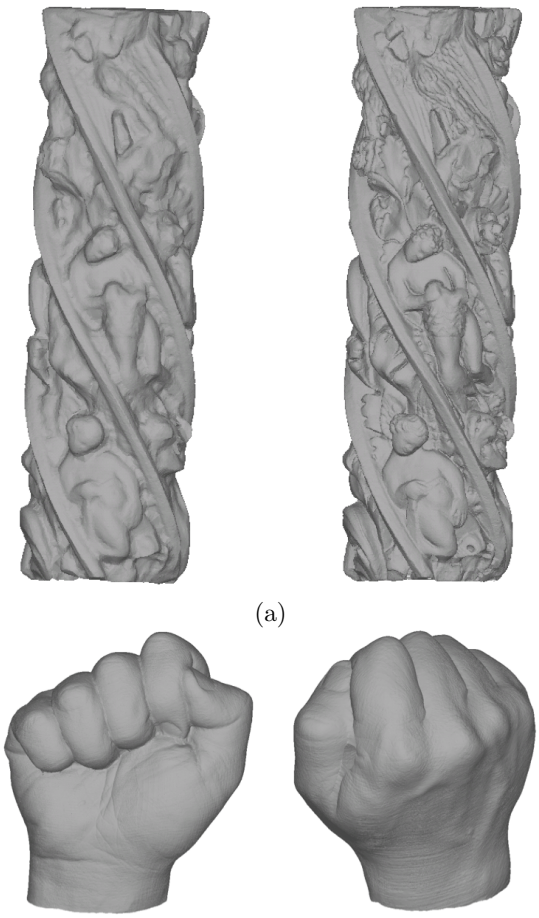


Figure 8: Chair and Ramesses: 60%, 80% and 100% white noise points together with randomly generated outlier clusters.



(a)

(b)

Figure 9: Tortile column and Pierre's clenched fist. The left and right images in (a) are generated using $\lambda = 0.25$ and $\lambda = 0.1$, respectively. We set $\alpha = 4$ and $\lambda = 0.25$ when generating the images in (b).

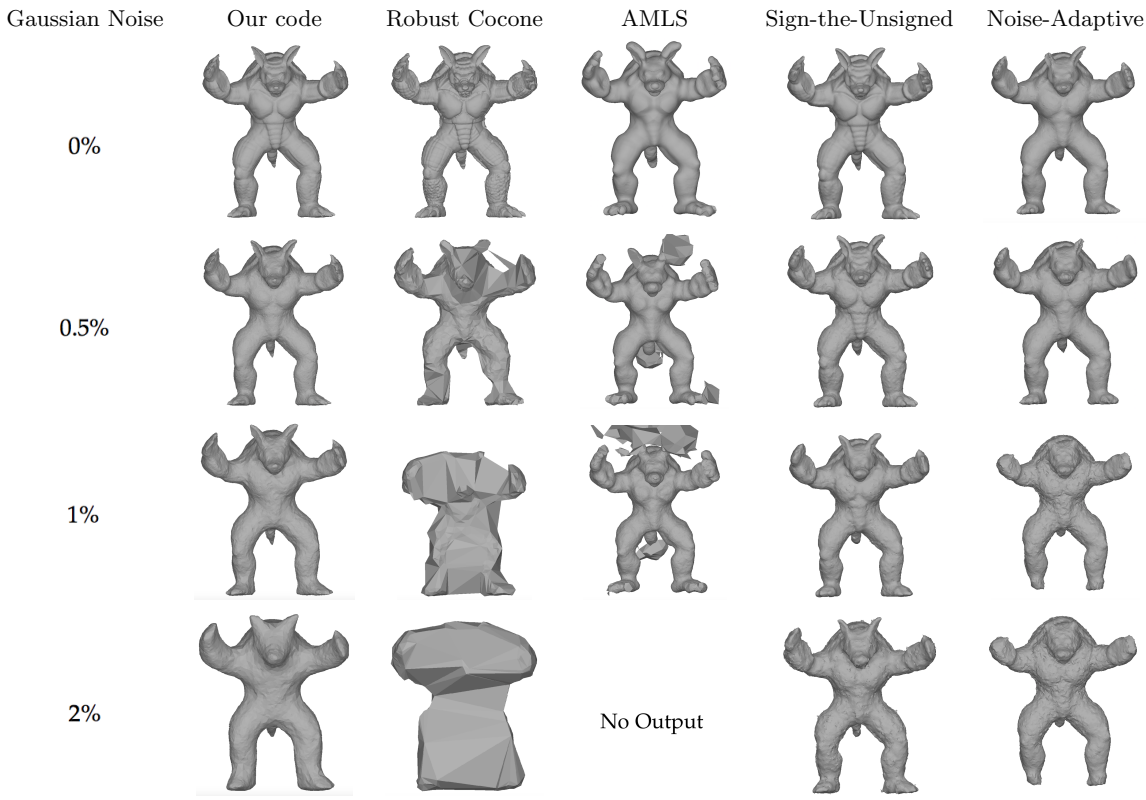


Figure 10: Armadillo: 5000 white noise points together with randomly generated outlier clusters.

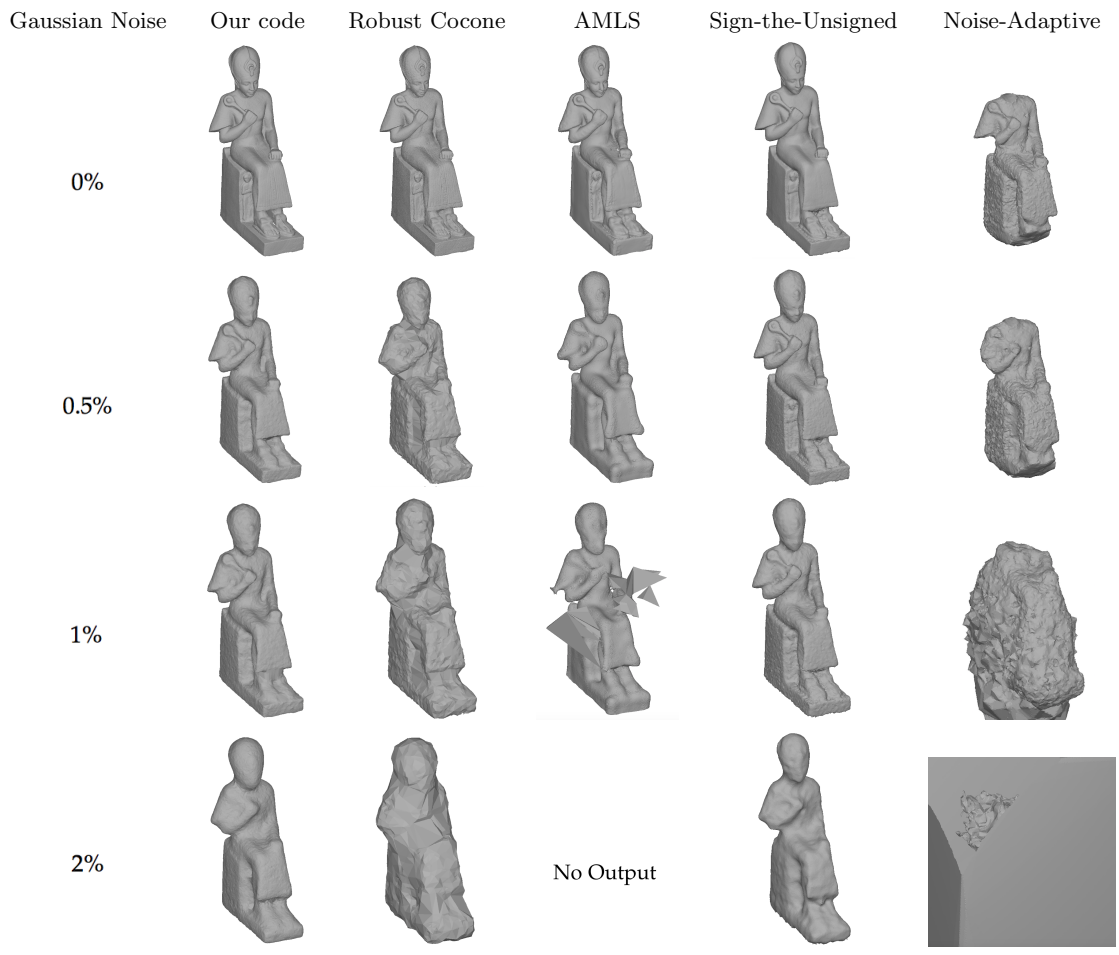


Figure 11: Ramesses: 5000 white noise points together with randomly generated outlier clusters.

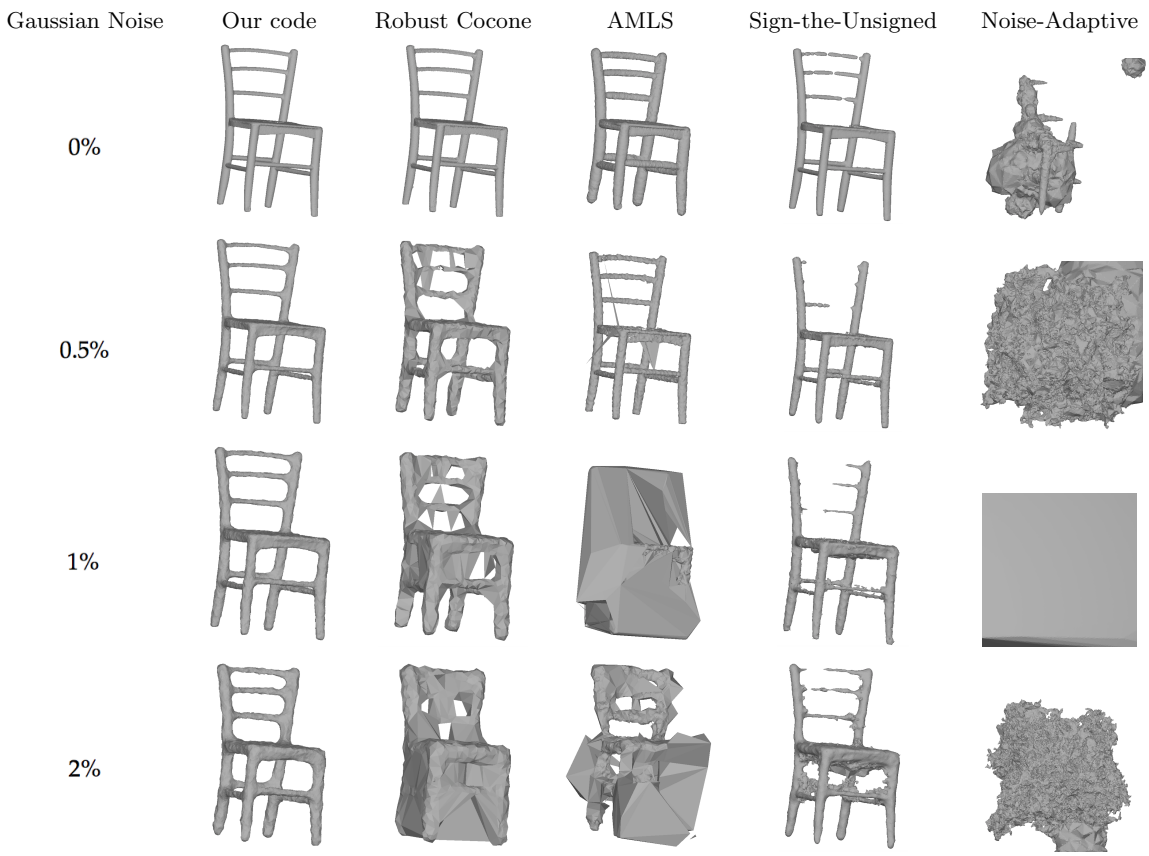


Figure 12: Chair: 5000 white noise points together with randomly generated outlier clusters.

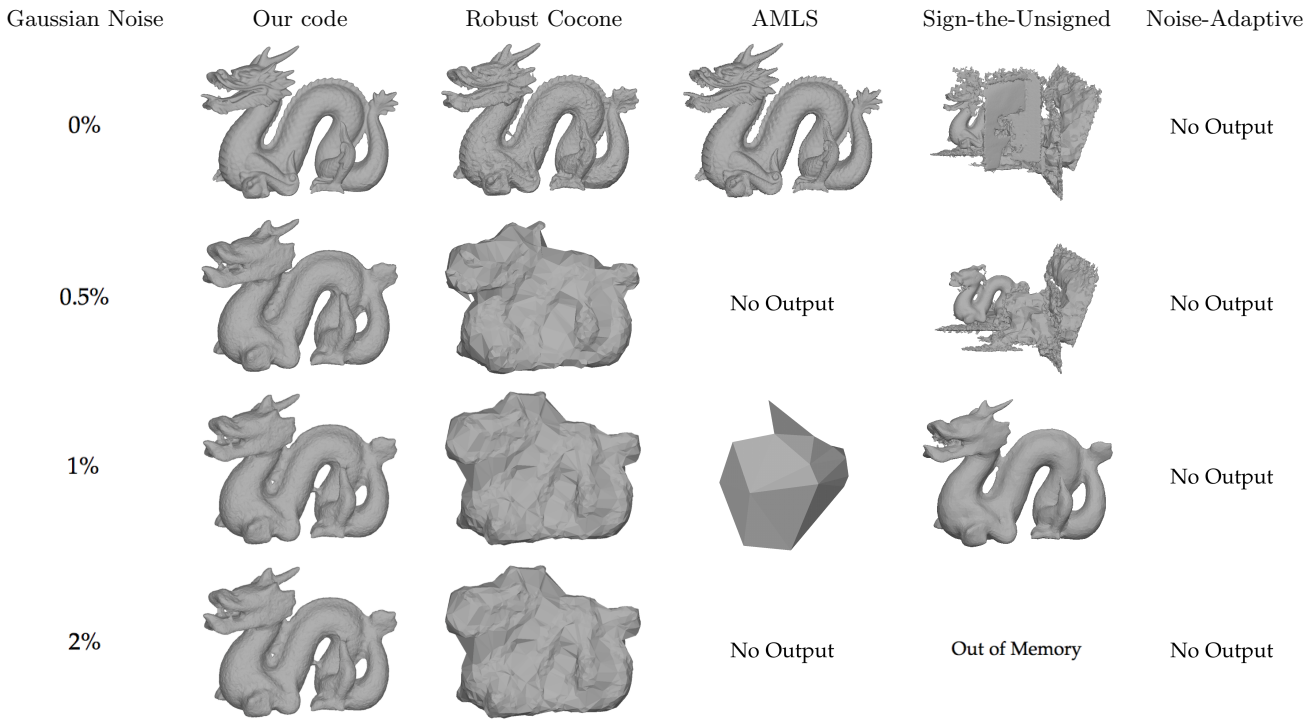


Figure 13: Dragon: 5000 white noise points together with randomly generated outlier clusters.

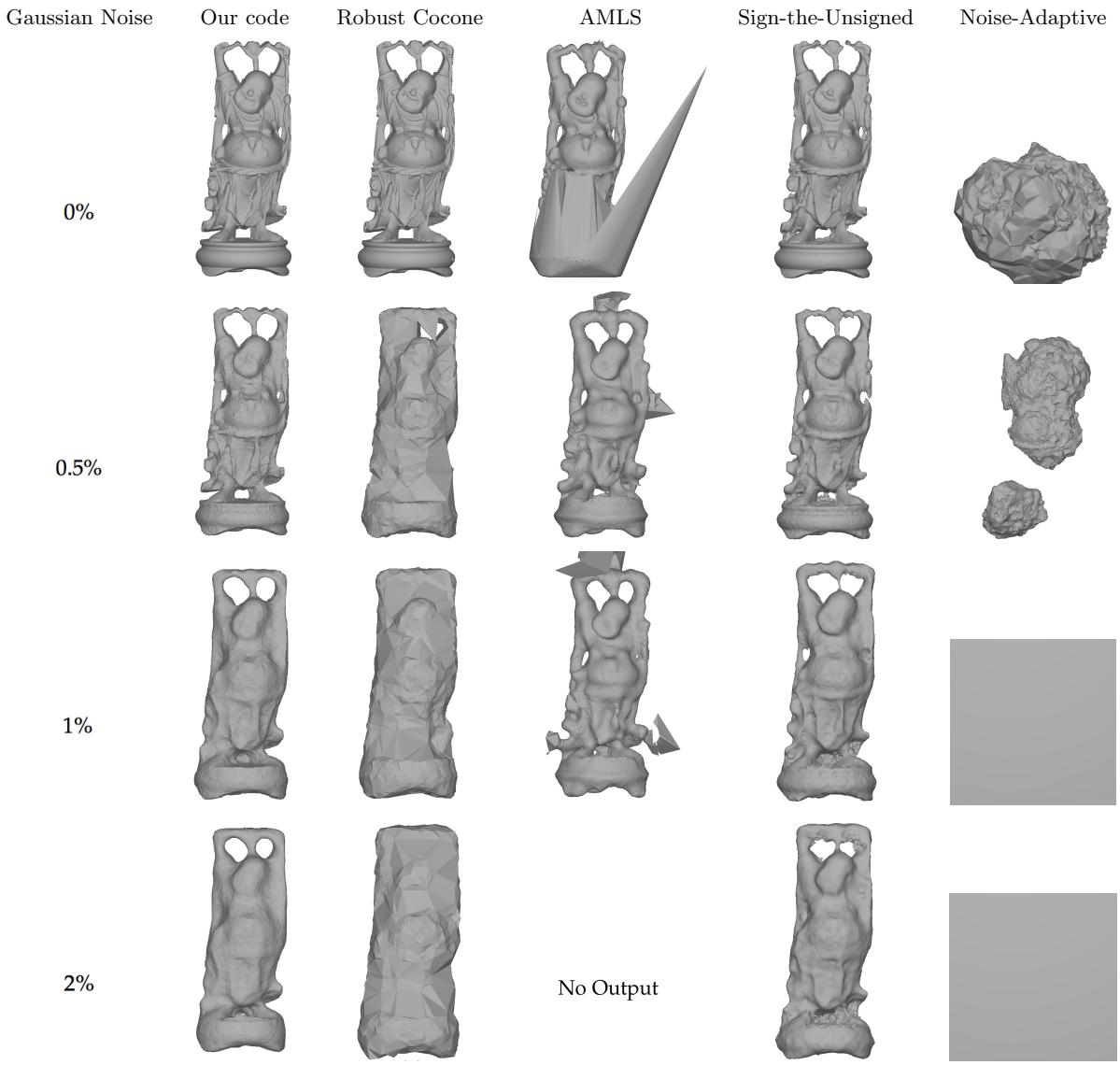


Figure 14: Buddha: 5000 white noise points together with randomly generated outlier clusters.

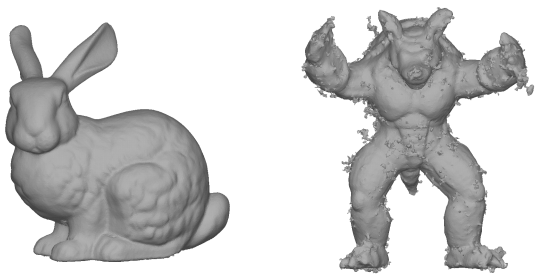


Figure 15: Bunny and Armadillo reconstructed by Sign-the-Unsigned: 60% white noise points together with randomly generated outlier clusters.

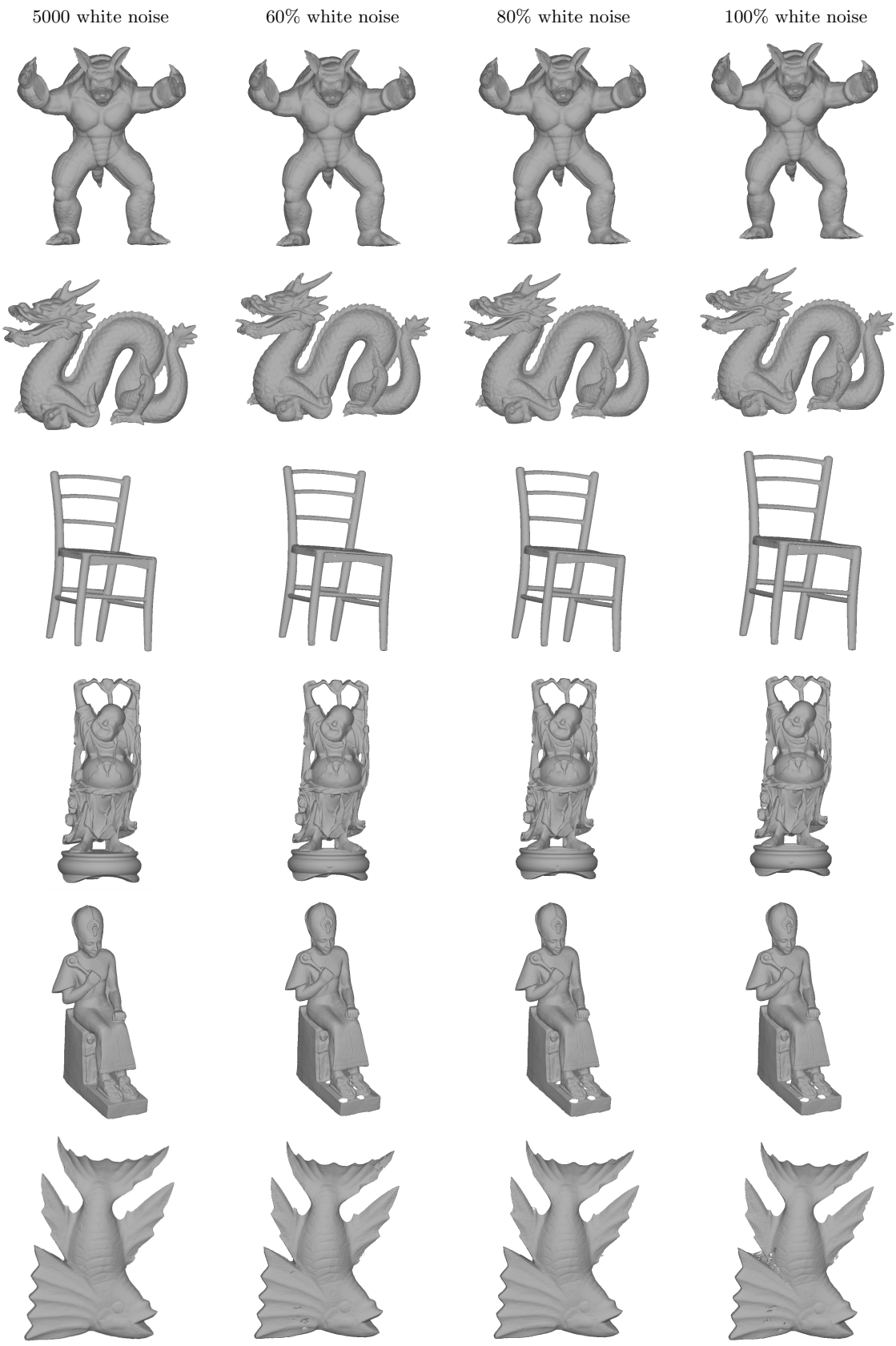


Figure 16: Reconstructions by our code.