## Supplementary Material for Reverse Image Segmentation: A High-Level Solution to a Low-Level Task

Jiajun Wu, Jun-Yan Zhu, and Zhuowen Tu

## **1** Berkeley Segmentation Dataset

We first provide more results on the Berkeley Segmentation Dataset [1], from which we can see that our framework performs better than other common segmentation systems [2, 3, 1]. Also, as illustrated in our paper and in images below, inaccurate semantic information can contribute in deriving correct segmentation maps, which are usually more useful in common vision tasks. This observation serves as a motivation and a verified conclusion of our study.



Figure 1: Segmentation results on the Berkeley Segmentation Dataset. From left to right: (a) original image, results of (b) Mean Shift [2], (c) Multiscale Normalized Cuts [3], (d) gPb-owt-ucm [1], and (e) our framework, (f) ground truth segmentations, and (g) our labeling results.



Figure 2: Segmentation results on the Berkeley Segmentation Dataset. From left to right: (a) original image, results of (b) Mean Shift [2], (c) Multiscale Normalized Cuts [3], (d) gPb-owt-ucm [1], and (e) our framework, (f) ground truth segmentations, and (g) our labeling results.



Figure 3: Segmentation results on the Berkeley Segmentation Dataset. From left to right: (a) original image, results of (b) Mean Shift [2], (c) Multiscale Normalized Cuts [3], (d) gPb-owt-ucm [1], and (e) our framework, (f) ground truth segmentations, and (g) our labeling results.

## 2 MSRC Database

We now provide more results on the MSRC Database [4].



Figure 4: Results of our framework on the MSRC Database.



Figure 5: Results of our framework on the MSRC Database.

## References

- P. Arbeláez, M. Maire, C. Fowlkes, and J. Malik. Contour detection and hierarchical image segmentation. *IEEE TPAMI*, 33(5):898–916, 2011. 1, 2, 3
- [2] D. Comaniciu and P. Meer. Mean shift: A robust approach toward feature space analysis. IEEE TPAMI, 24(5):603-619, 2002. 1, 2, 3
- [3] T. Cour, F. Benezit, and J. Shi. Spectral segmentation with multiscale graph decomposition. In CVPR, 2005. 1, 2, 3
- [4] J. Shotton, J. Winn, C. Rother, and A. Criminisi. Textonboost: joint appearance, shape and context modeling for multi-class object recognition and segmentation. In ECCV, 2006. 4