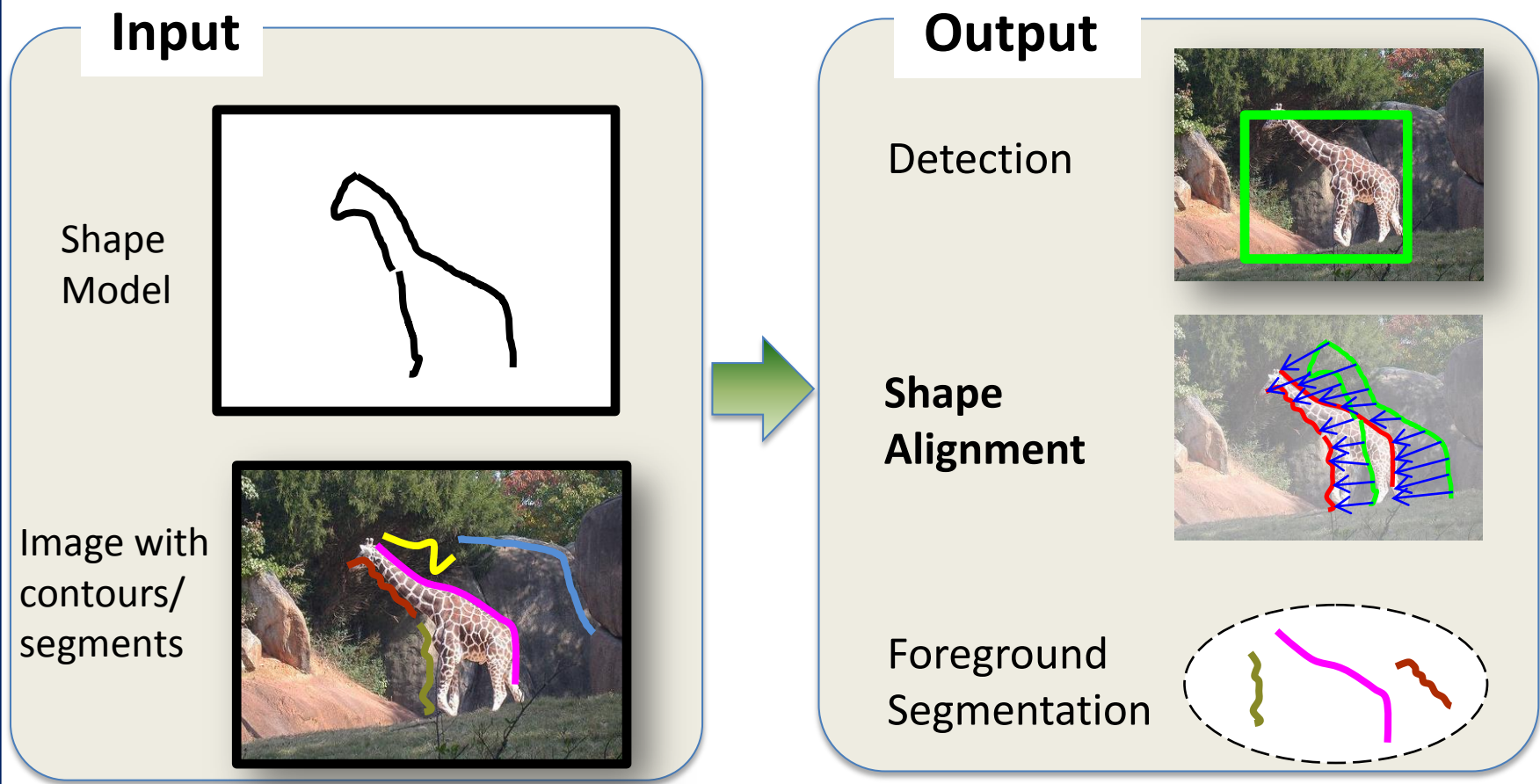


Discriminative Image Warping using Attribute Flow

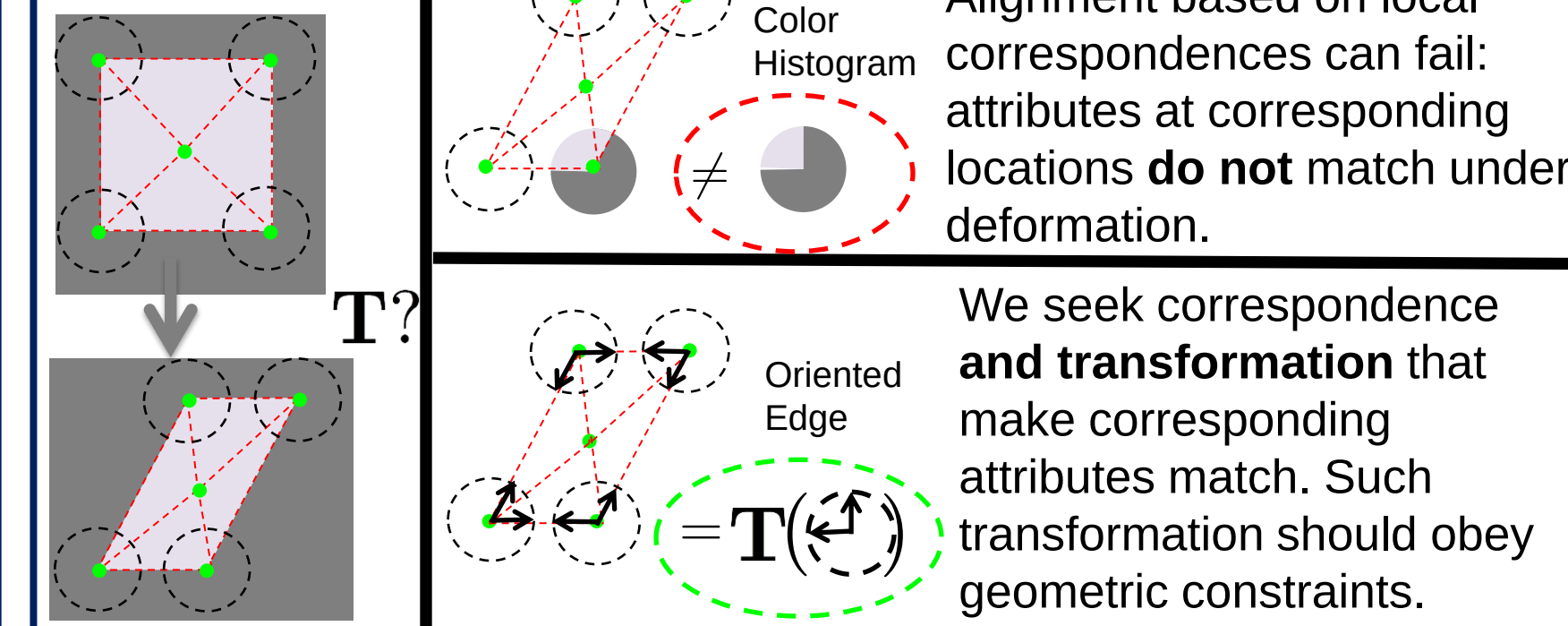
Weiyu Zhang, Praveen Srinivasan, and Jianbo Shi

1. Goal

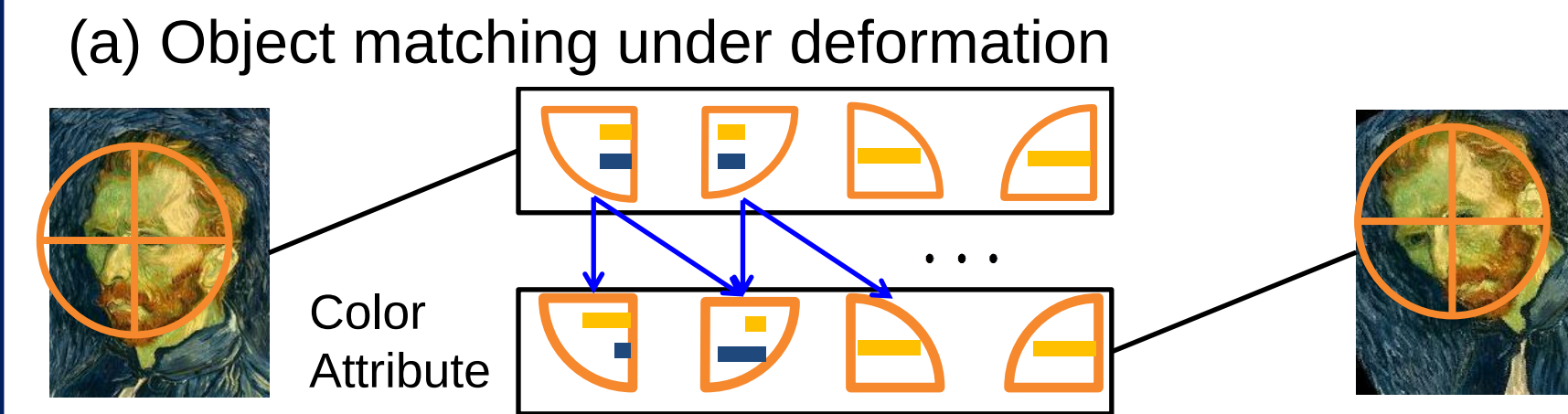
Given bottom-up salient contours and segments, we want to detect the object, align the shape densely and extracted foreground segmentation in a *one shot* fashion.



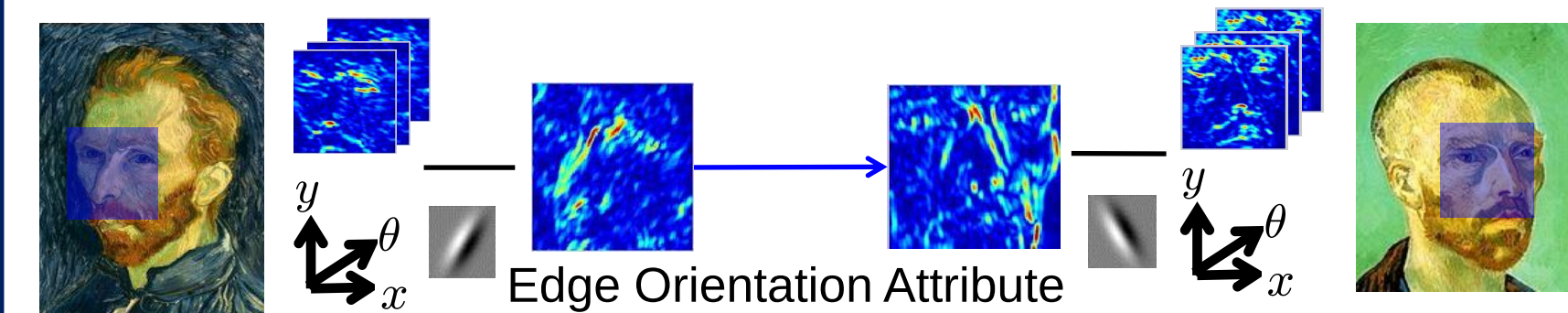
Challenge



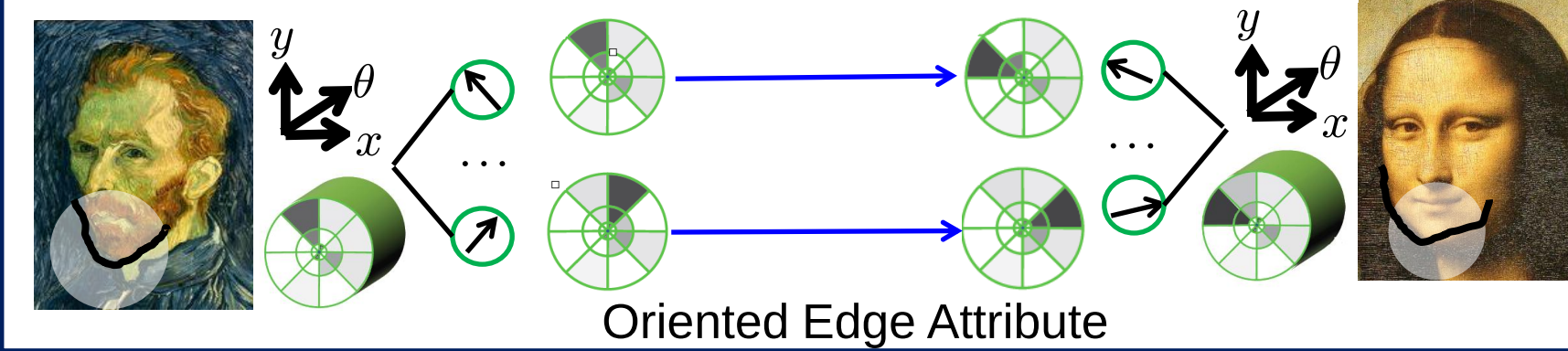
“Attribute Flow” suggests object transformation T



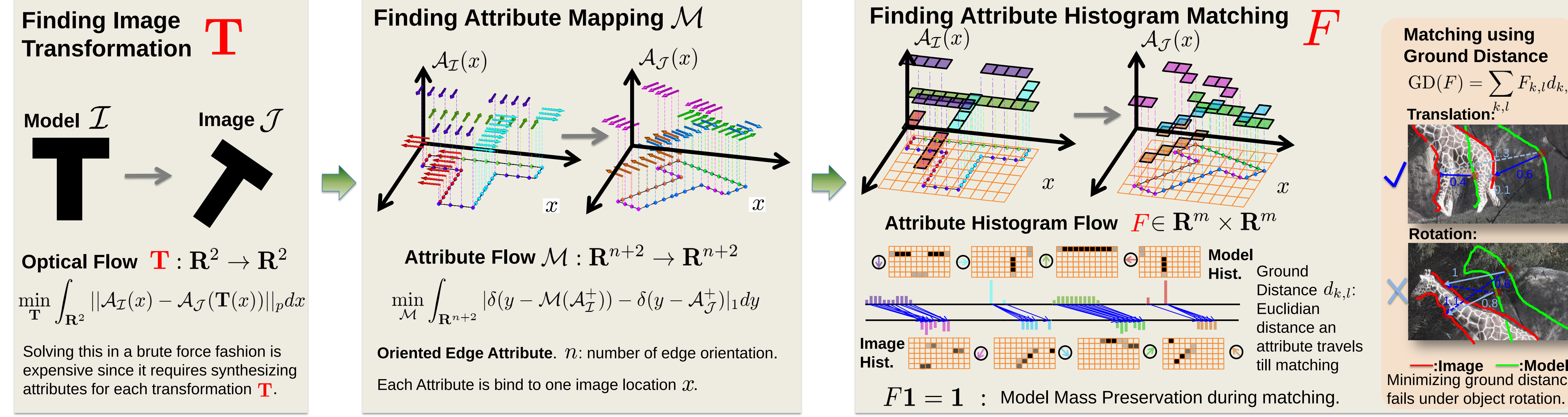
(b) Object Matching under pose variation



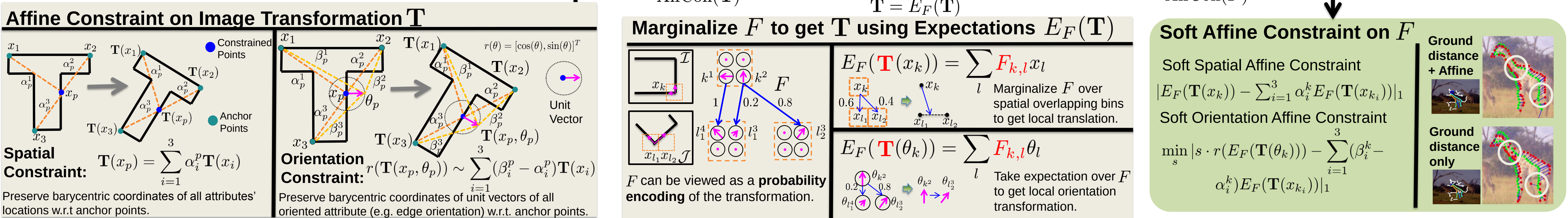
(c) Intra-Category Object Matching



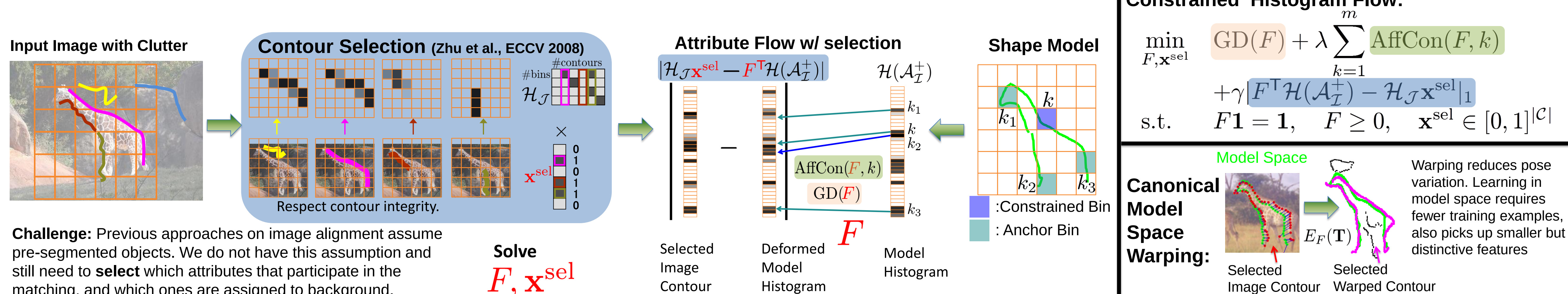
2. Attribute Flow



3. Affine Constraint on Attribute Flow

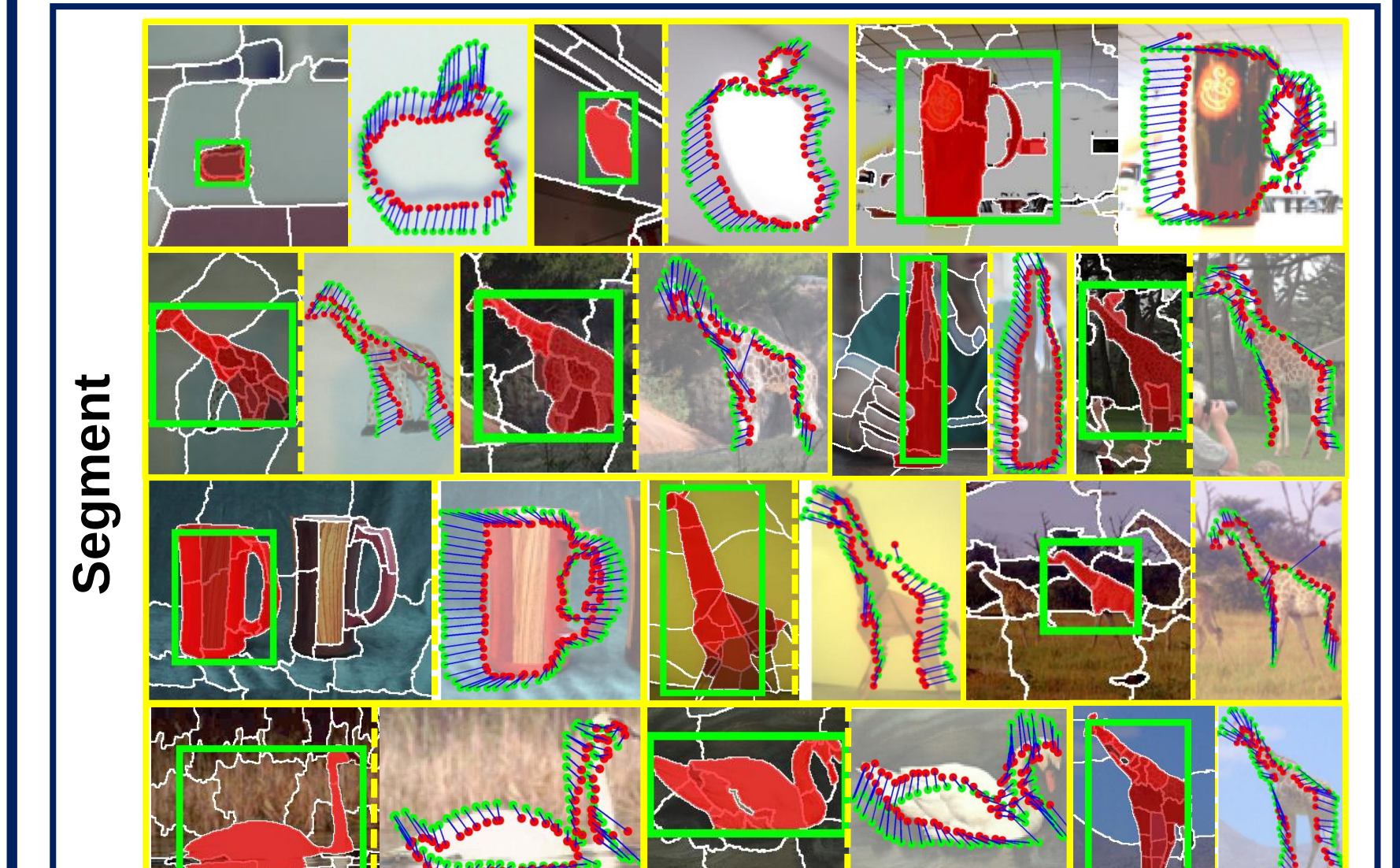
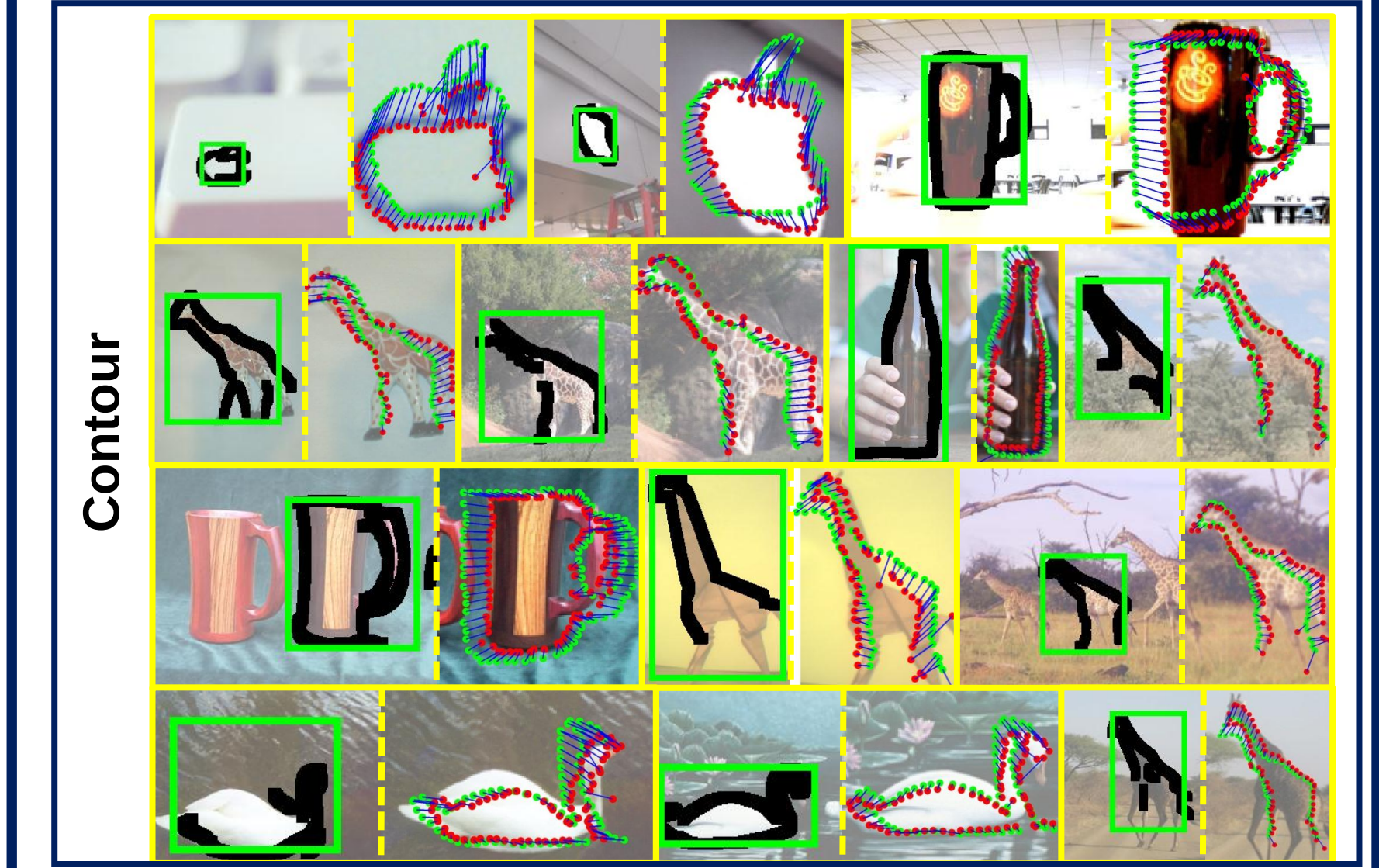


4. Constrained Attribute Flow w/ Selection



5. Experiments on ETHZ Dataset

Qualitative Results



Quantitative Results (Contour)

	Applelogos	Bottles	Giraffes	Mugs	Swans	Mean
Attribute Flow	0.930	0.977	0.783	0.895	0.972	0.911
Ma et al. [6]	0.881	0.920	0.756	0.868	0.959	0.877
Srini. et al. [10]	0.845	0.916	0.787	0.888	0.922	0.872
Maji et al. [7]	0.869	0.724	0.742	0.806	0.716	0.771
Lu et al. [5]	0.844	0.641	0.617	0.643	0.798	0.709
Toshev et al. [12]	0.983	0.936	0.713	0.718	0.973	0.865

