

# Recovering Faces from Portraits with Auxiliary Facial Attributes (Supplementary Material)

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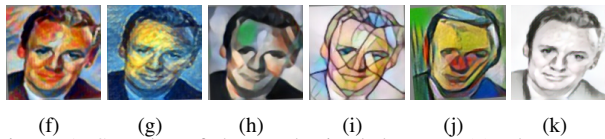


Figure 1. Samples of the synthesized dataset. (a) The ground-truth aligned real face image. (b)-(k) The synthesized unaligned portraits form *Scream*, *Wave*, *Candy*, *Feathers*, *Composition VII*, *Starry night*, *Udnie*, *Mosaic*, *la Muse* and *Sketch* styles which have been used for training and testing our network.

## 1. Synthesized Dataset

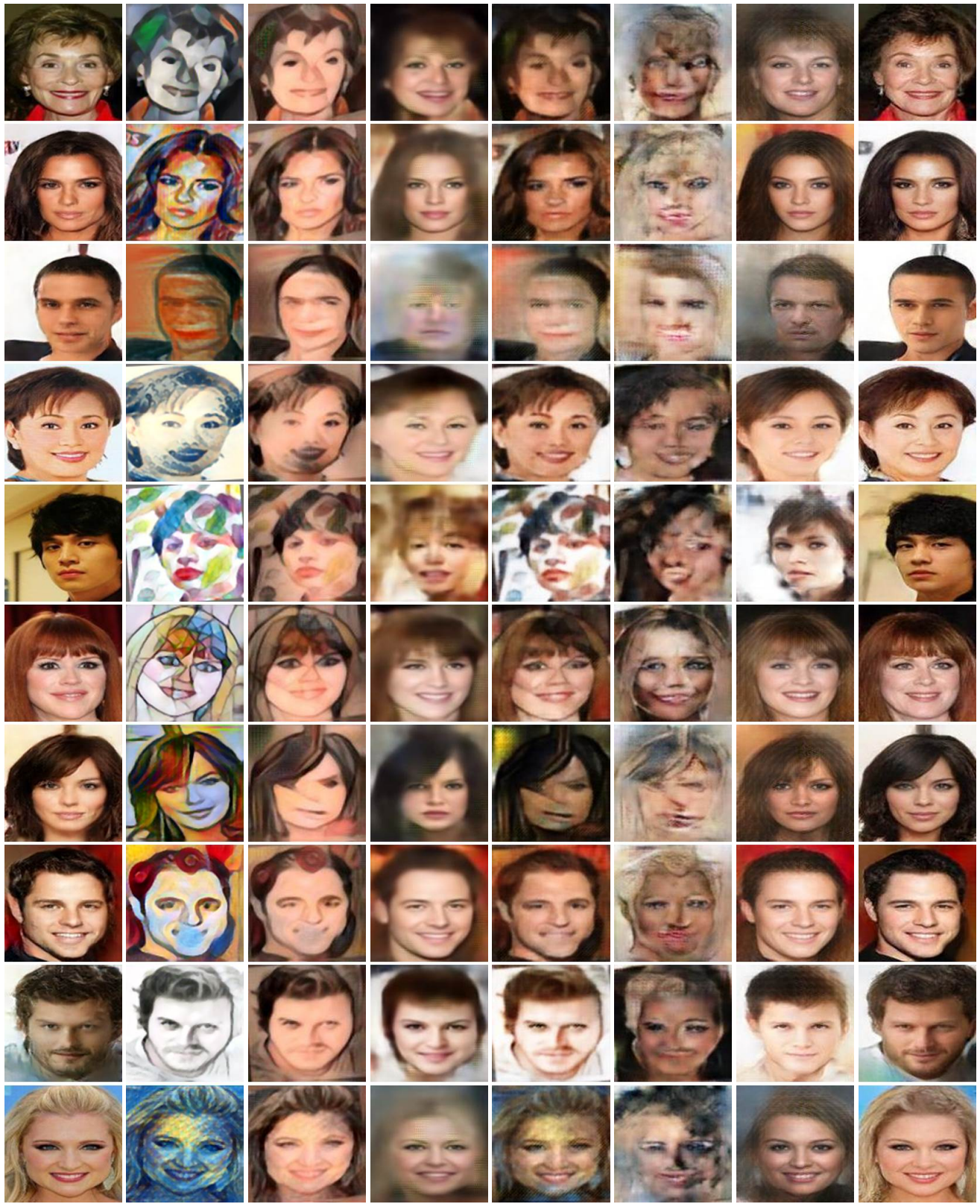
Figure 1 shows the stylized samples that are generated from a single real image containing a face.

## 2. Additional Experiments

Below (next page), we provide more additional results demonstrating the performance of our AFRP network compared to the state-of-art approaches.

## References

- [1] P. Isola, J.-Y. Zhu, T. Zhou, and A. A. Efros. Image-to-image translation with conditional adversarial networks. *arXiv preprint arXiv:1611.07004*, 2016.
- [2] J. Johnson, A. Alahi, and L. Fei-Fei. Perceptual losses for real-time style transfer and super-resolution. In *ECCV*, 2016.
- [3] F. Shiri, X. Yu, P. Koniusz, and F. Porikli. Face destylization. In *DICTA*. IEEE, 2017.
- [4] F. Shiri, X. Yu, F. Porikli, R. Hartley, and P. Koniusz. Identity-preserving face recovery from portraits. *WACV*, 2018.
- [5] J.-Y. Zhu, T. Park, P. Isola, and A. A. Efros. Unpaired image-to-image translation using cycle-consistent adversarial networks. *arXiv preprint arXiv:1703.10593*, 2017.



(a) RF (b) SF (c) [2] (d) [3] (e) [1] (f) [5] (g) [4] (h) Ours

Figure 2. Comparisons to the state-of-the-art methods. (a) The original RF images. (b) Input portraits (from the test dataset) including the unseen styles as well as the seen styles. (c) Johnson *et al.*'s method [2]. (d) Shiri *et al.*'s method [3] (e) Isola *et al.*'s method [1] (pix2pix). (f) Zhu *et al.*'s method [5] (CycleGAN). (g) Shiri *et al.*'s method [4]. (h) Our method.