

Sliced Wasserstein Barycenters of Measures – Supplemental Material

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This document presents additional results making use of our Radon and sliced Wasserstein barycenters.

1 Texture synthesis

Our Radon barycenter can be used to interpolate power spectra of textures, with the goal of generating new textures. We present additional results on natural textures with non-sparse (or weakly sparse) power spectra in Fig. 2, 3 and 4 and compare with linear interpolation.

2 Color transfer

2.1 Color harmonization

Our sliced Wasserstein barycenter allows to harmonize colors of a set of images by computing the average colors occurring in these images, and transferring the colors of this barycenter to each input image in this set. Additional color harmonization results are shown in Fig. 5.

2.2 Color manipulation

Our sliced Wasserstein barycenter allows to manipulate colors in an image by transferring colors from a weighted av-



Fig. 5 Harmonization by transferring the colors of the barycenter of the top row to each image of the bottom row.

erage of other finely color graded images. Additional color manipulation results are shown in Fig. 6 and 6.

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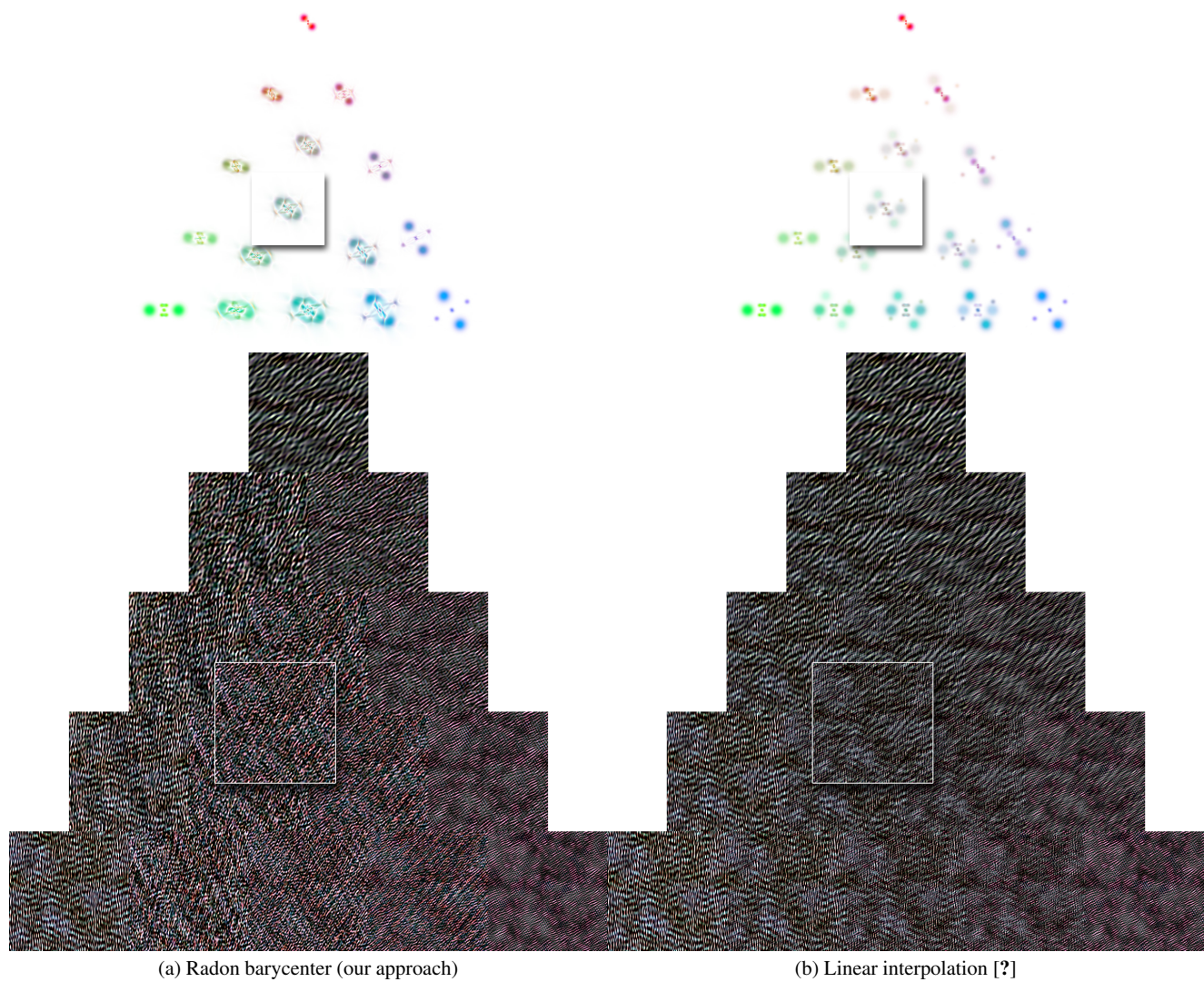


Fig. 1 Our Eulerian Radon barycenter (a) interpolates amplitude spectra and preserves symmetry (first row) in the context of texture synthesis (second row). We exhibit the difference with a linear interpolation (b) of the amplitude spectrum.

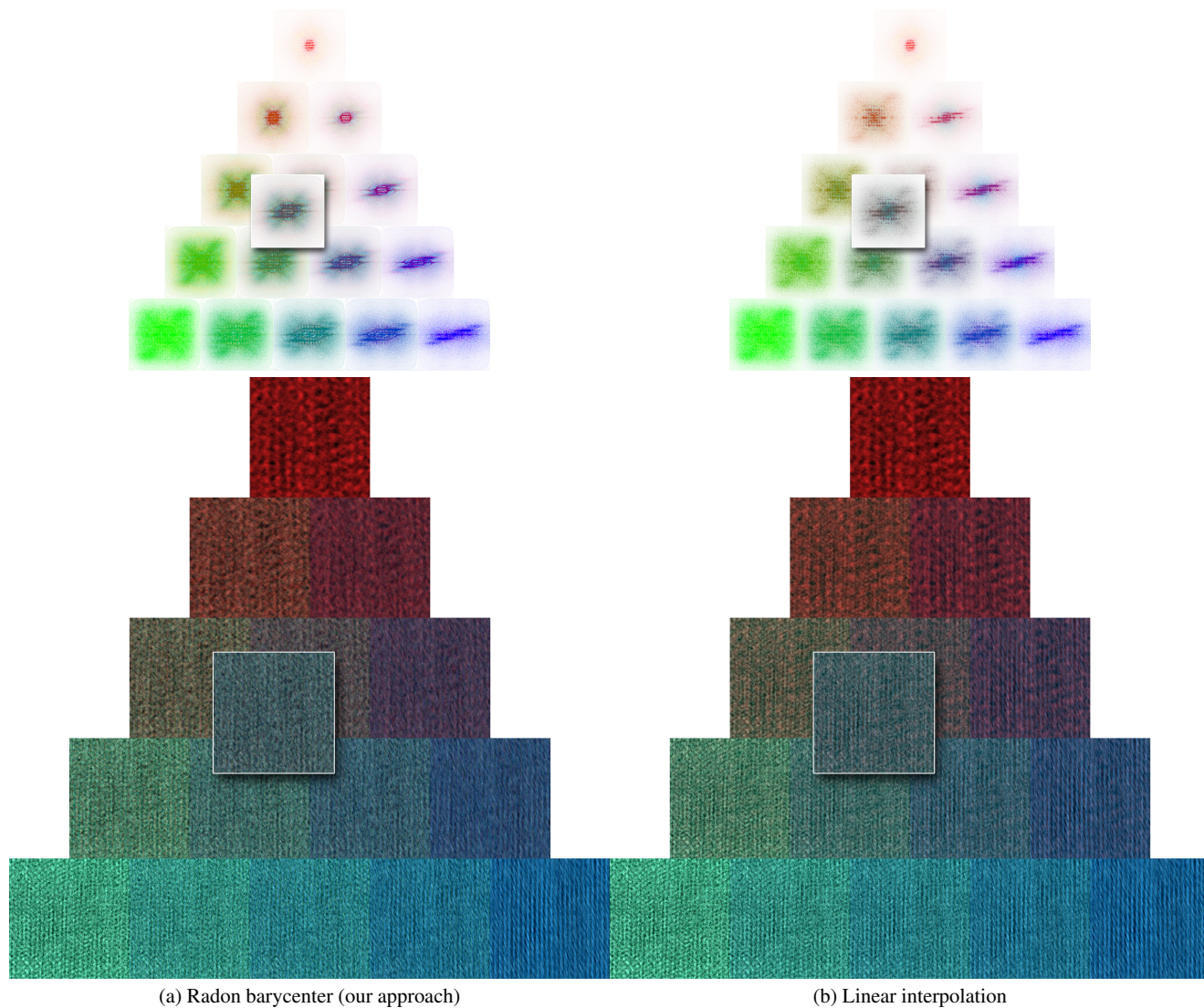


Fig. 2 Our Eulerian Radon barycenter (a) interpolates amplitude spectra and preserves symmetry (first row) in the context of texture synthesis (second row). We exhibit the difference with a linear interpolation (b) of the amplitude spectrum.

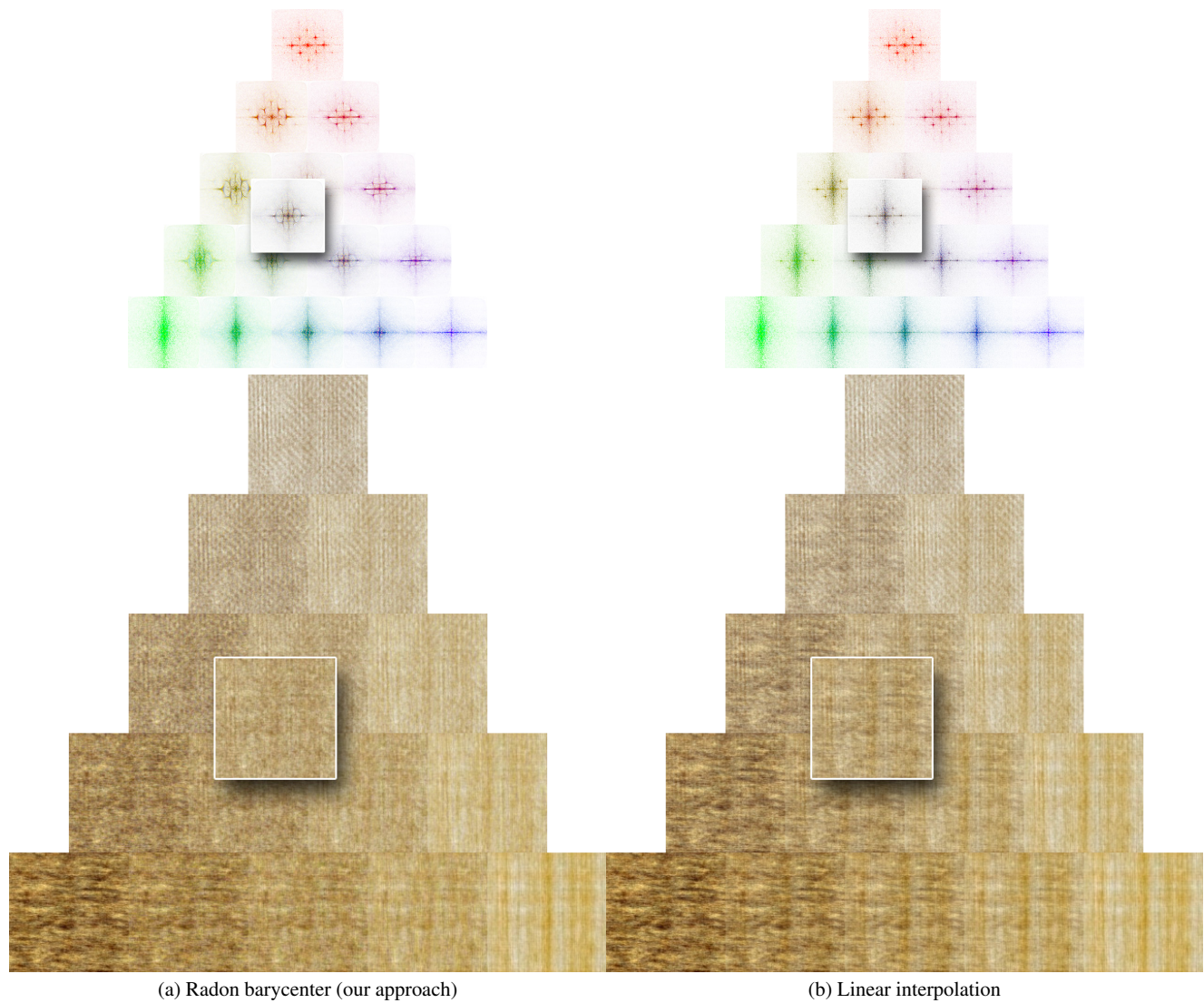


Fig. 3 Our Eulerian Radon barycenter (a) interpolates amplitude spectra and preserves symmetry (first row) in the context of texture synthesis (second row). We exhibit the difference with a linear interpolation (b) of the amplitude spectrum.

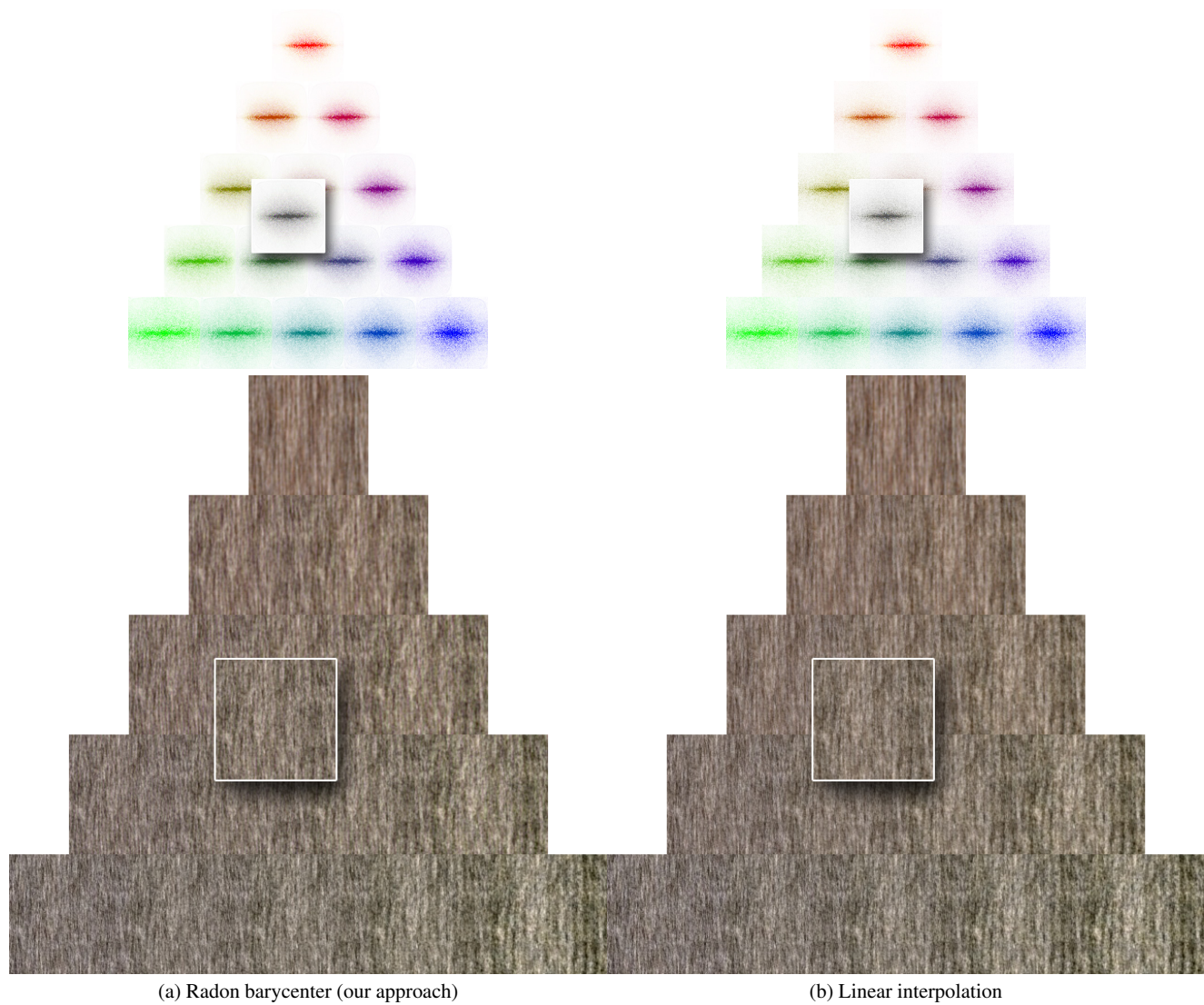


Fig. 4 Our Eulerian Radon barycenter (a) interpolates amplitude spectra and preserves symmetry (first row) in the context of texture synthesis (second row). We exhibit the difference with a linear interpolation (b) of the amplitude spectrum.



Fig. 6 Color manipulation by transferring colors of three photographs shown at the vertices of the triangle (right) to the initial photograph (left).



Fig. 7 Color manipulation by transferring colors of three photographs shown at the vertices of the triangle (right) to the initial photograph (left).