Learning a Patch Quality Comparator For Single Image Dehazing

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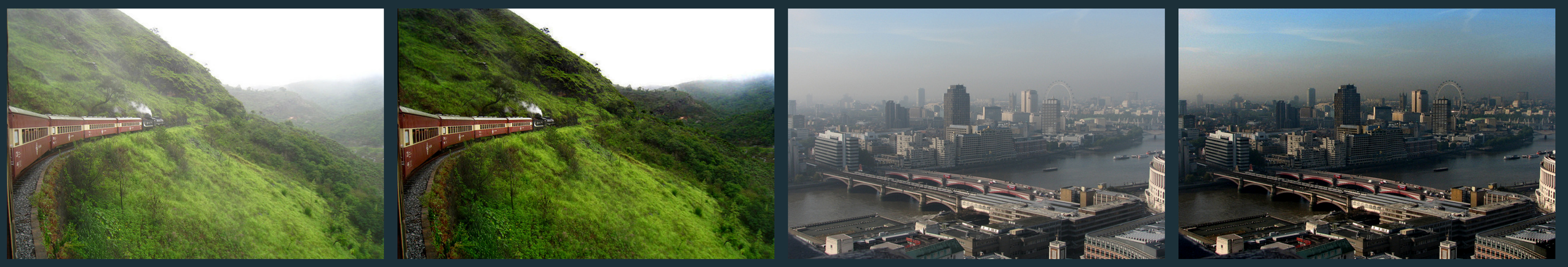


Why Comaparator?

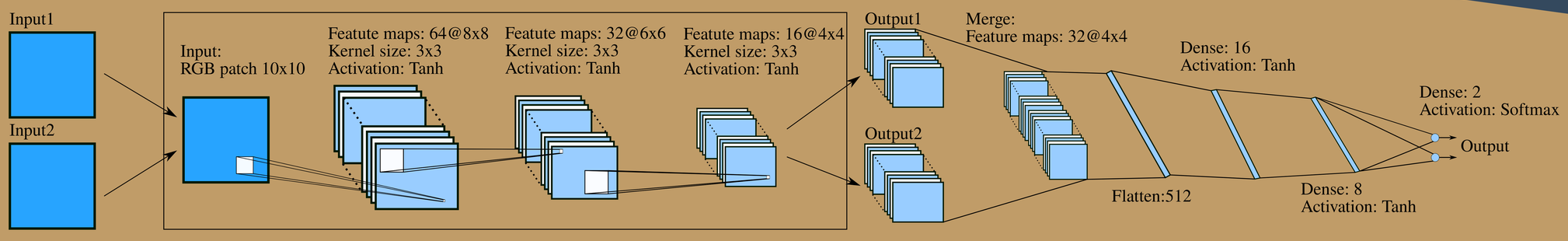
What is the amout of haze :

Which one has more haze :

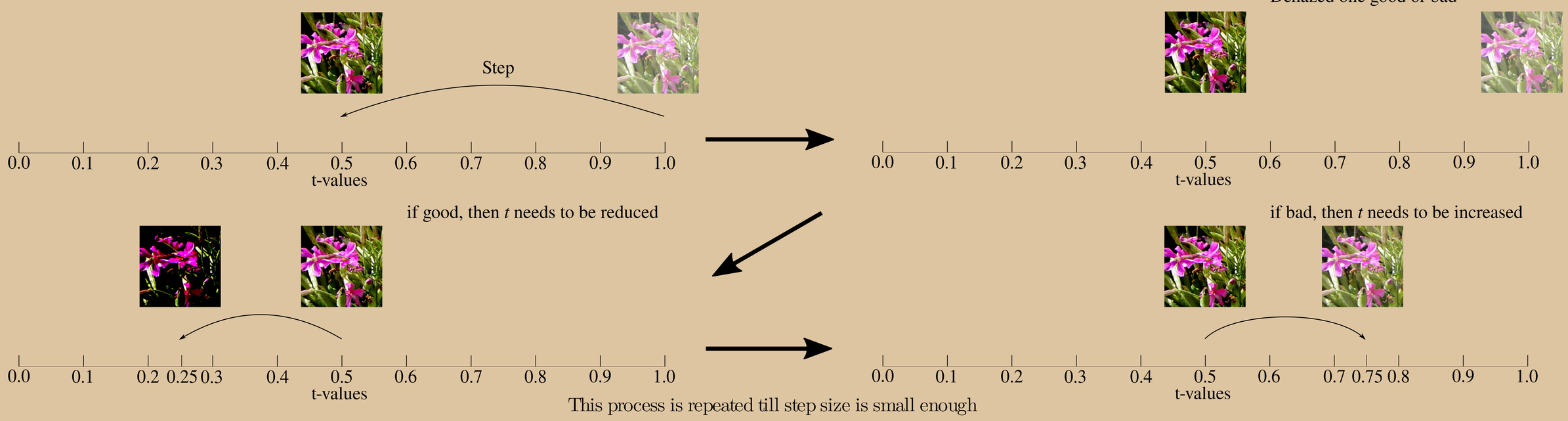
The 2nd question is much easier to answer.

Principle

The Comparator



Transmittance Searching



Quantitative Results

	Berman et al. [1]		Ren et al. [2]		Our		Our (Given A)	
	SSIM	CIEDE2000	SSIM	CIEDE2000	SSIM	CIEDE2000	SSIM	CIEDE2000
Fattal dataset	0.941	8.44	0.8	19.266	0.862	19.651	0.944	6.919
D-Hazy: NYU	0.73	13.33	-	-	0.73	13.78	0.794	13.036
D-Hazy: Middlebury	0.838	11.339	0.819	15.669	0.841	13.201	-	-

References

[1] Berman, Dana, and Shai Avidan. "Non-local image dehazing." Proceedings of the IEEE conference on computer vision and pattern recognition. 2016.

[2] Ren, Wenqi, et al. "Single image dehazing via multi-scale convolutional neural networks." European conference on computer vision. Springer, Cham, 2016.

Website

Demo:

Project: