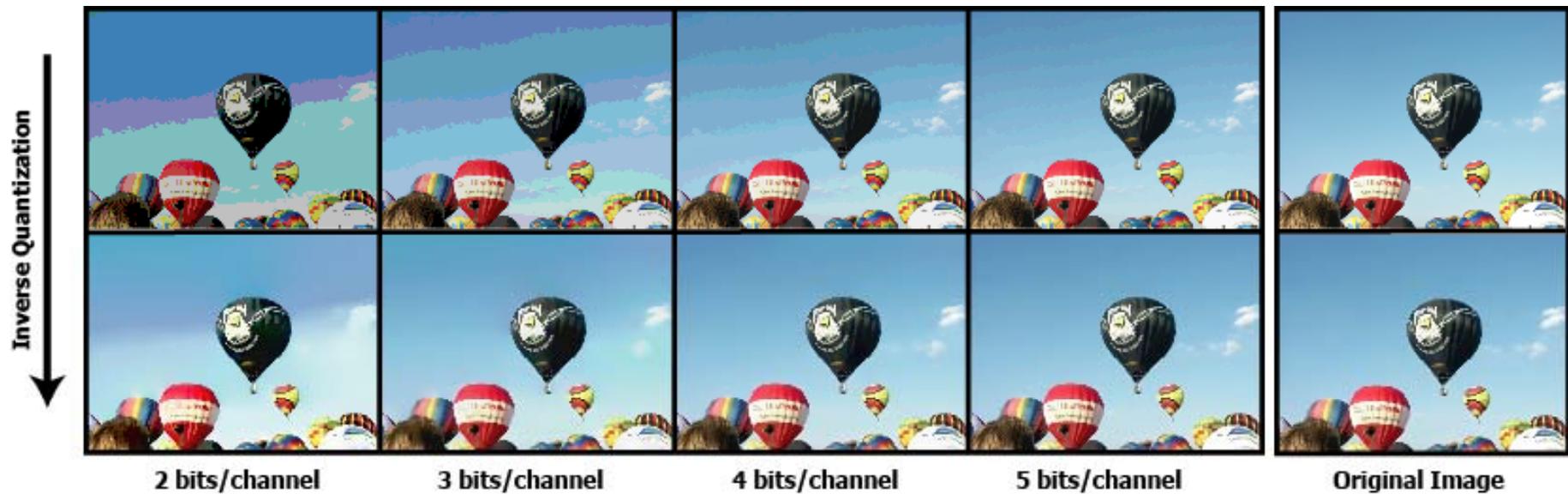*Supplementary Material*

Image Dequantization:
Restoration of Quantized Colors

Tae-hoon Kim[1], Jongwoo Ahn[2], Min Gyu Choi[2]

[1]Olaworks, Inc., Korea
[2]Kwangwoon University, Korea

Automatic
Image Dequantization

Inverse Quantization

2 bits/channel   3 bits/channel   4 bits/channel   5 bits/channel   Original Image

Automatic Image Dequantization

Automatic Image Dequantization

Original Image

Input Image (80 colors)

Dequantized Image

Automatic Image Dequantization

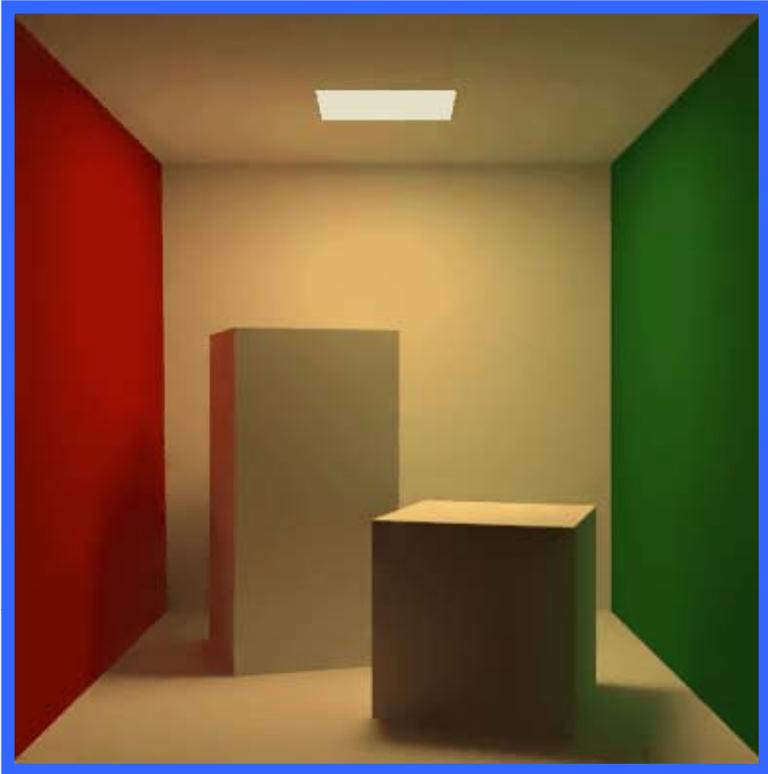Original Image

Input Image (21 colors)

Dequantized Image

Automatic Image Dequantization

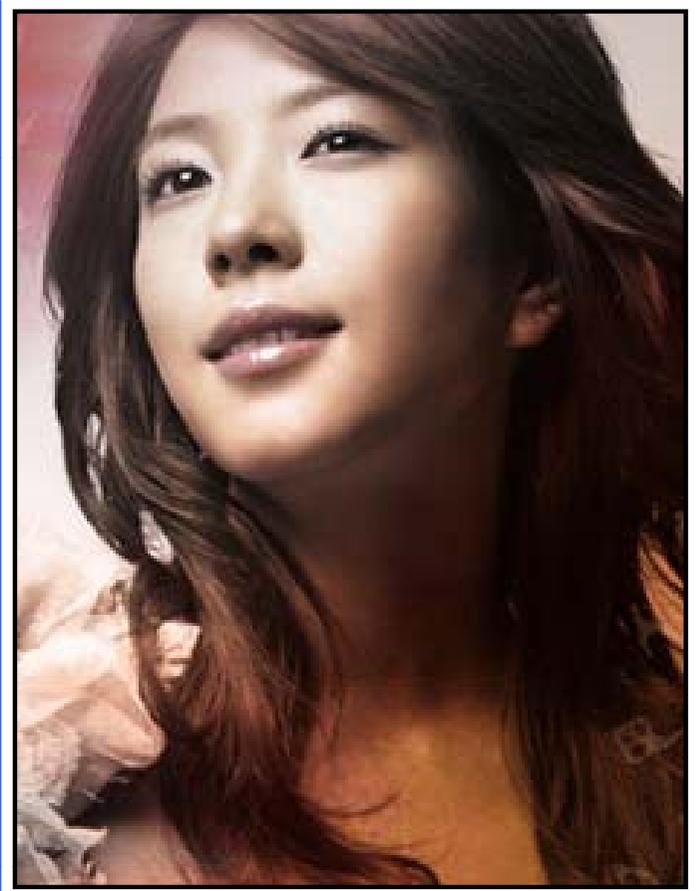

Original Image

Input Image (70 colors)

Dequantized Image

Automatic
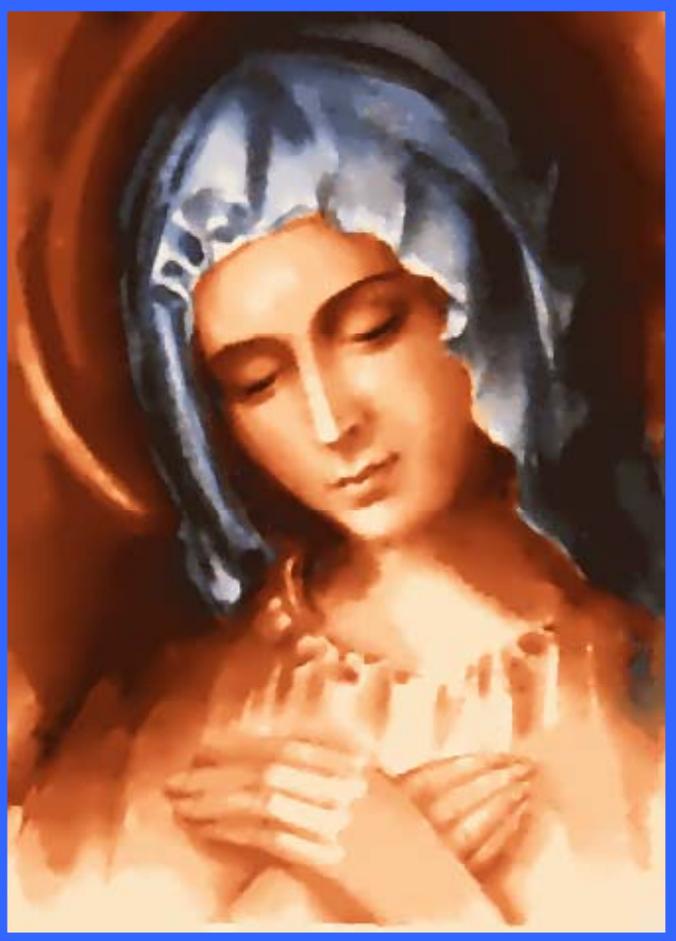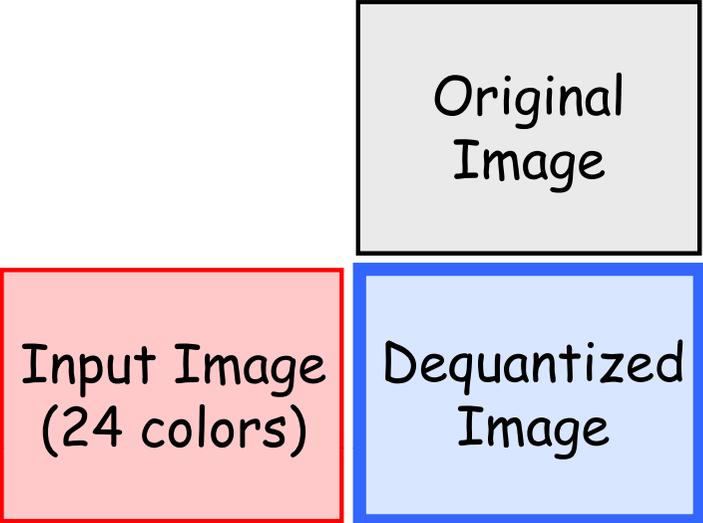# Image Dequantization

Automatic
Image Dequantization

Input Image (64 colors) | Dequantized Image | Original Image

Automatic
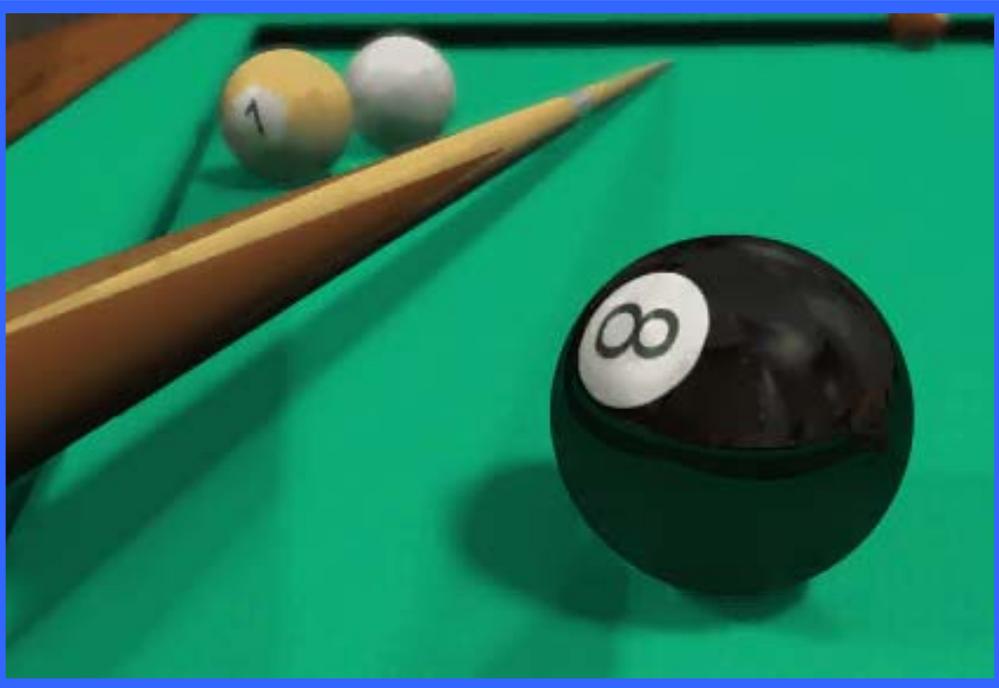# Image Dequantization

Automatic
Image Dequantization

Original Image

Input Image (24 colors)

Dequantized Image

Automatic Image Dequantization

Automatic
Image Dequantization

Compare a Minimum MSE Image
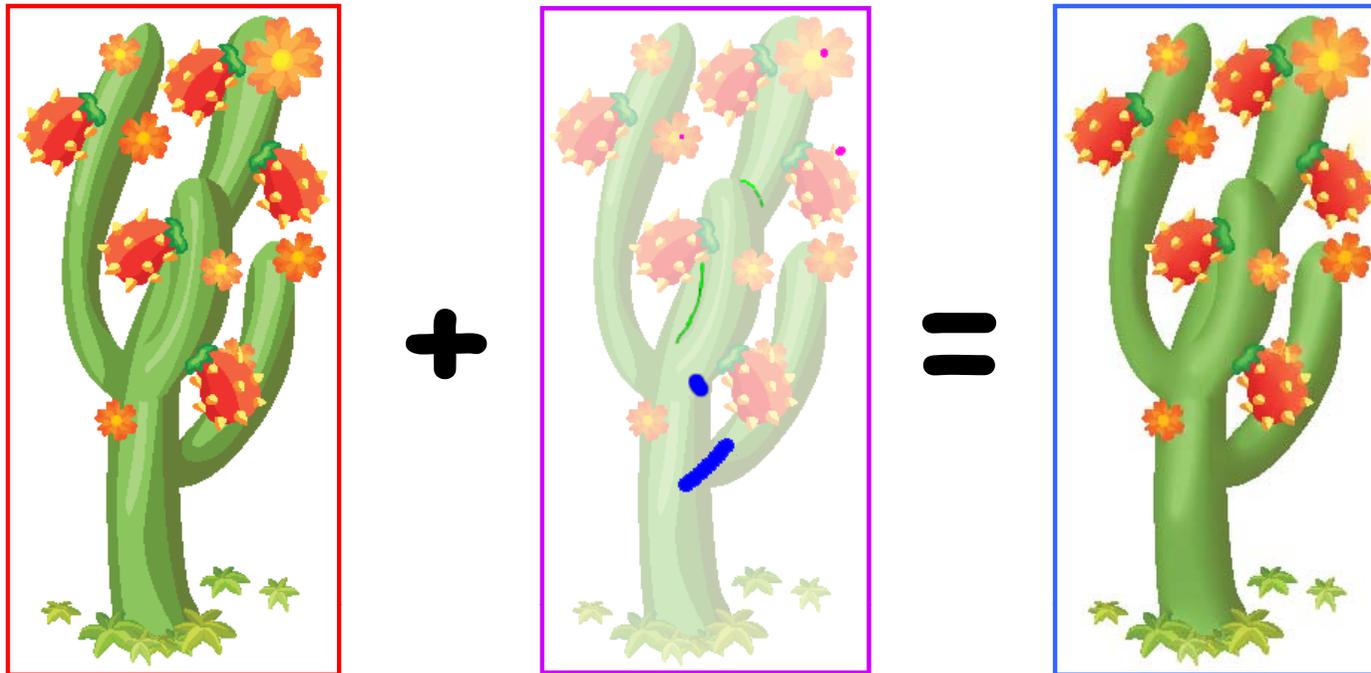## With a Best Visual Quality Image
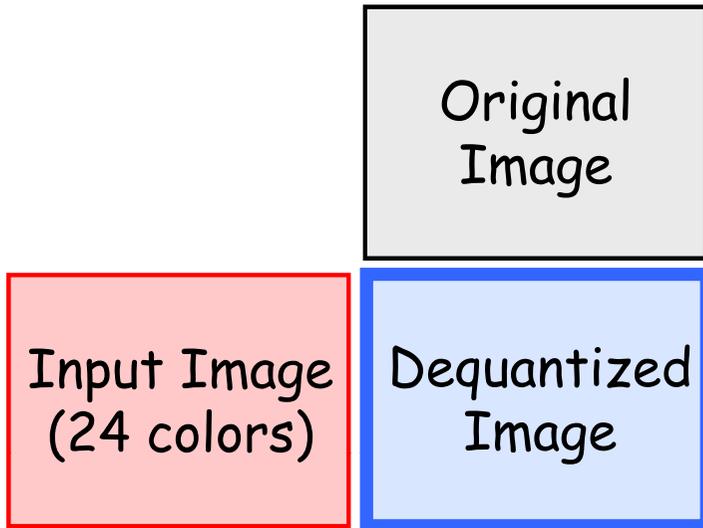

Minimum MSE Image

Input Image (128 colors)

Best visual quality Image

Interactive Image Dequantization

Interactive Dequantization with Annotations (1/2)

Original Image

Input Image (24 colors)

Dequantized Image

Dequantized without Annotations
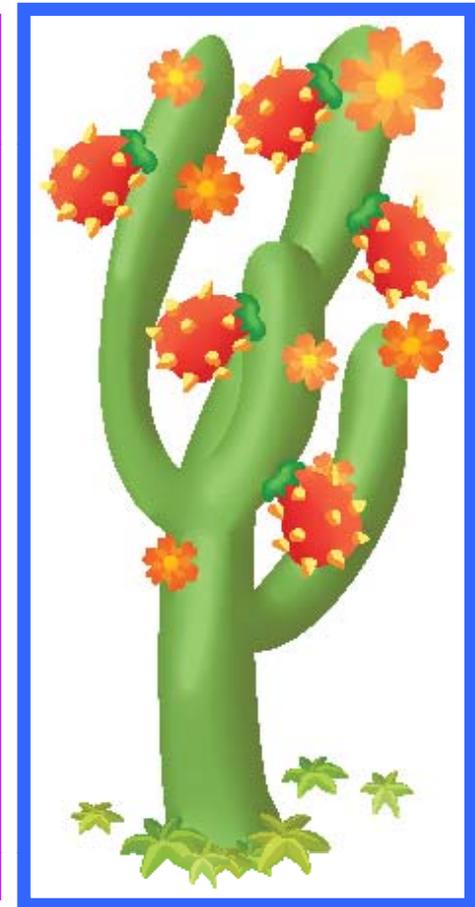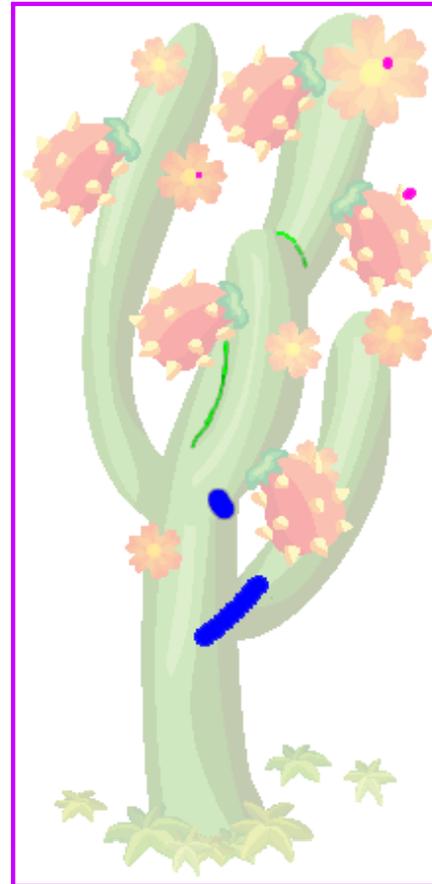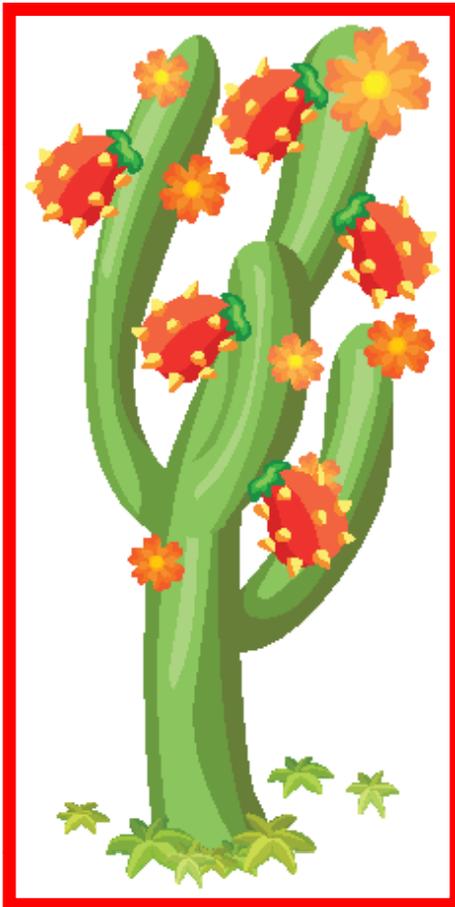
Original
Image

Annotated
Input Image
(24 colors)

Dequantized
Image

Dequantized with Annotations

Interactive Dequantization for Cartoon-shaded Images

Interactive Dequantization for Cartoon-shaded Images

Interactive Dequantization for Cartoon-shaded Images

Image Dequantization with Additional Continuity Constraints

Input Image

Dequantized Image with $w_c = 0$

Dequantized Image with $w_c = 0.2$

Dequantized Image with $w_c = 0.3$