

# Color-to-Grayscale Conversions

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Fig. 1

Cosine kernel

$$K_5(y_i, y_j) = \frac{[a(y_i \cdot y_j) + b]^2}{[a(y_i \cdot y_i) + b] \times [a(y_j \cdot y_j) + b]} \quad \text{Eq. 1}$$

$$K_6(y_i, y_j) = \begin{cases} \log^2(K_5), & \text{if } i \neq 1 \text{ and } j \neq 1 \\ \log(K_5), & \text{else} \end{cases} \quad \text{Eq. 2}$$

Hafner16



Fig. 2

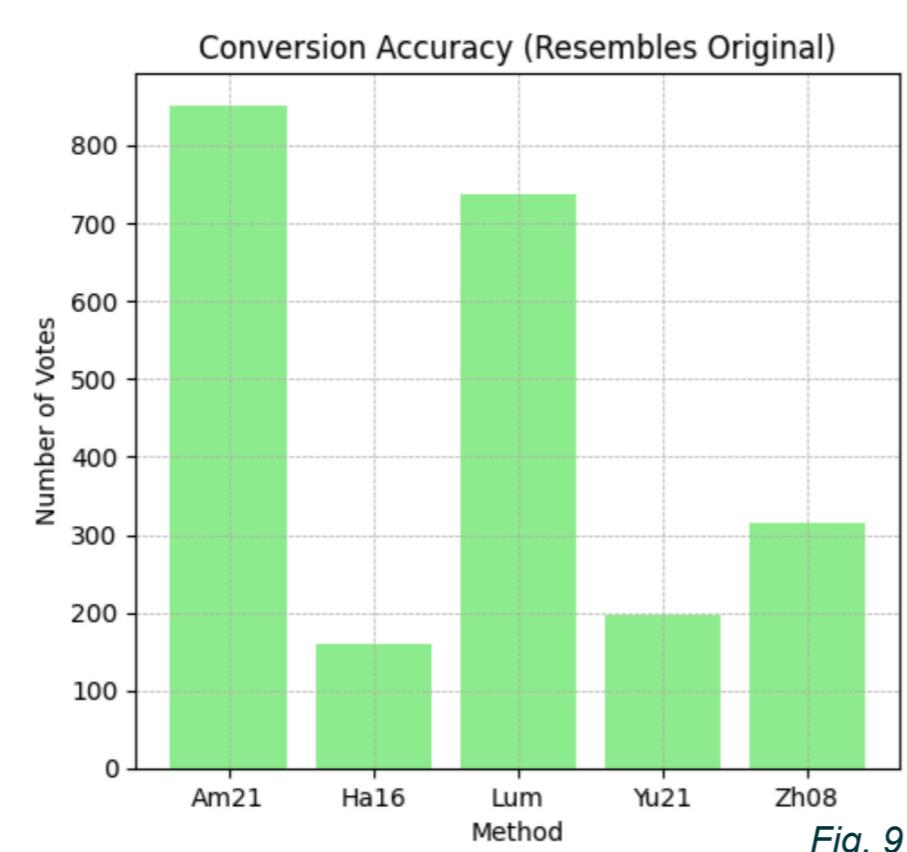
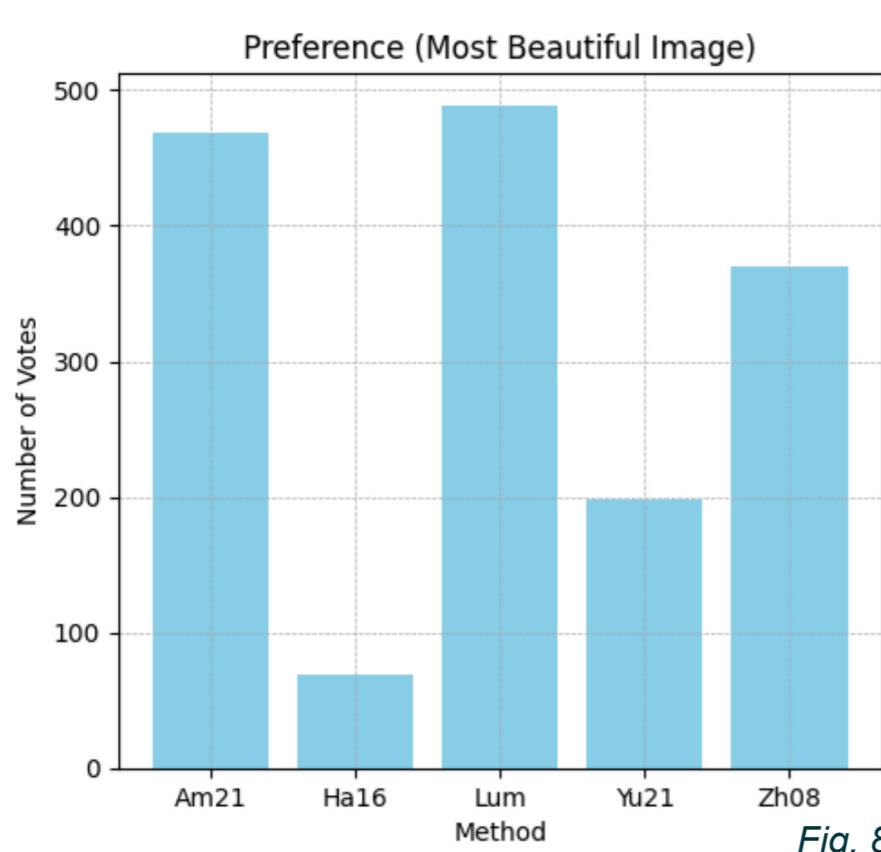
*Algorithm 1*

Input: input images  $f_1, \dots, f_n$   
Output: fused composite  $u$   
set attachment image  $\bar{f}$   
repeat  
    gradient descent step  
    projection onto simplex  
until convergence  
assemble  $u$

Yu21



Fig. 4



Ambalathankandy21

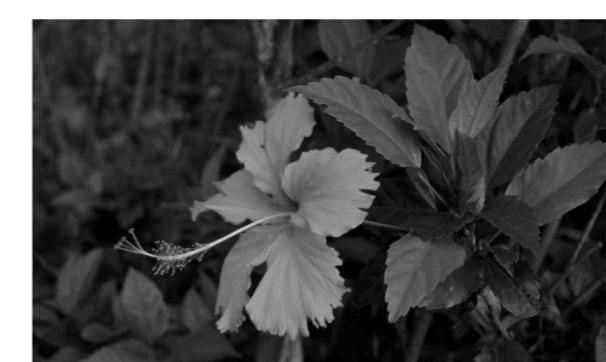
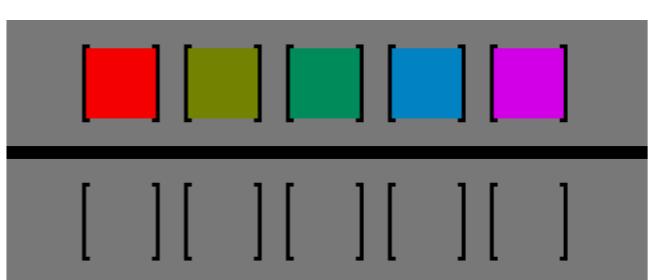


Fig. 6

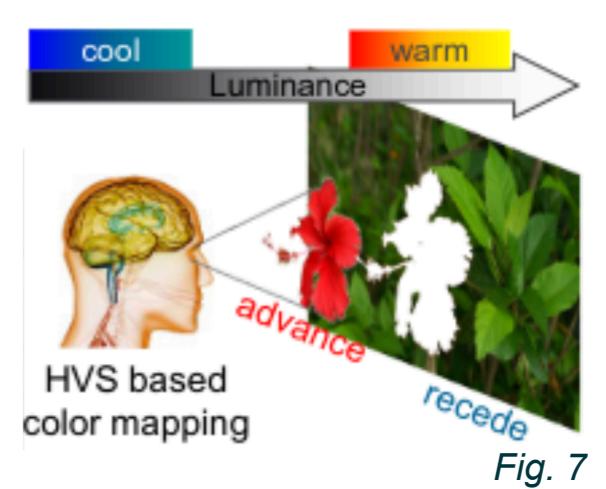
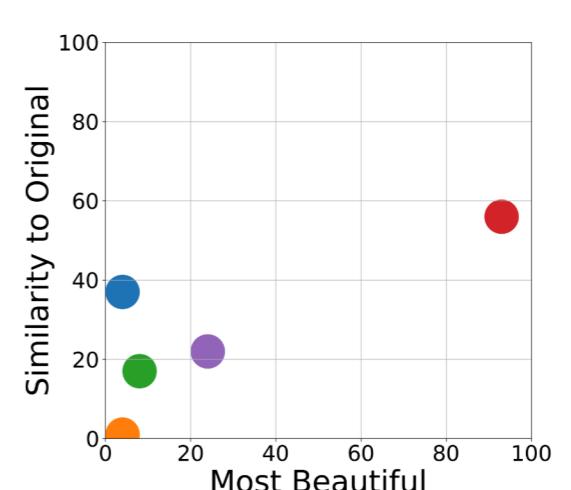
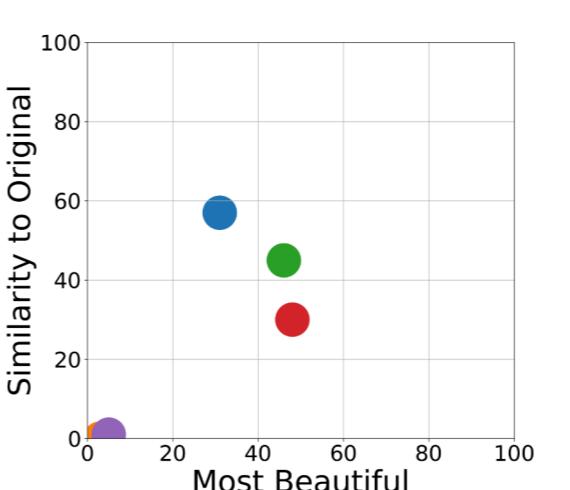
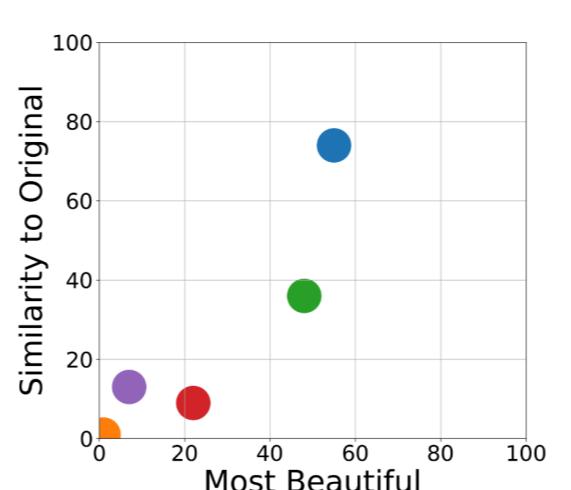
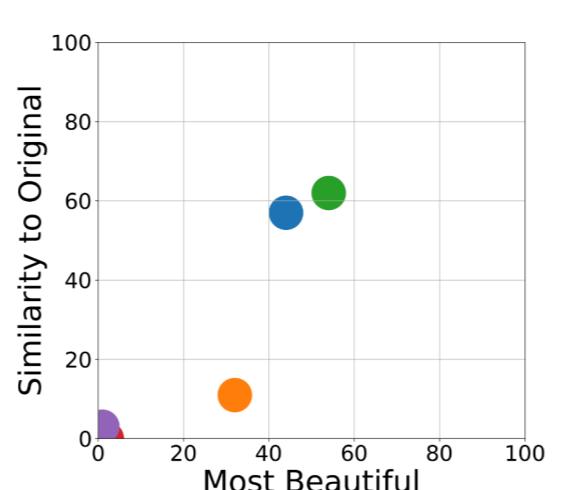
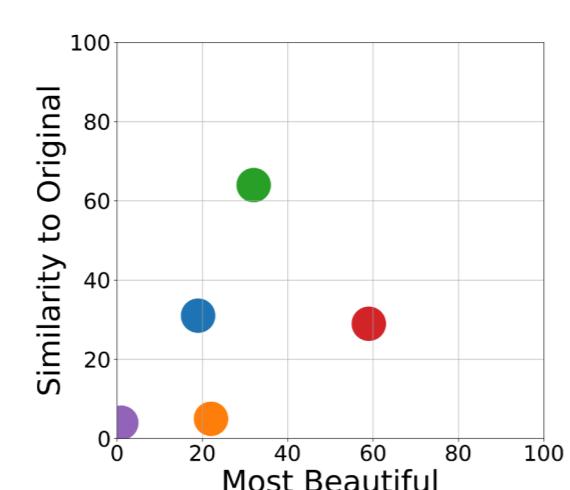
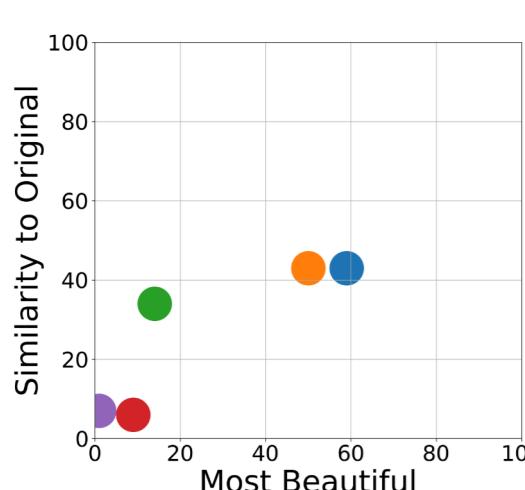
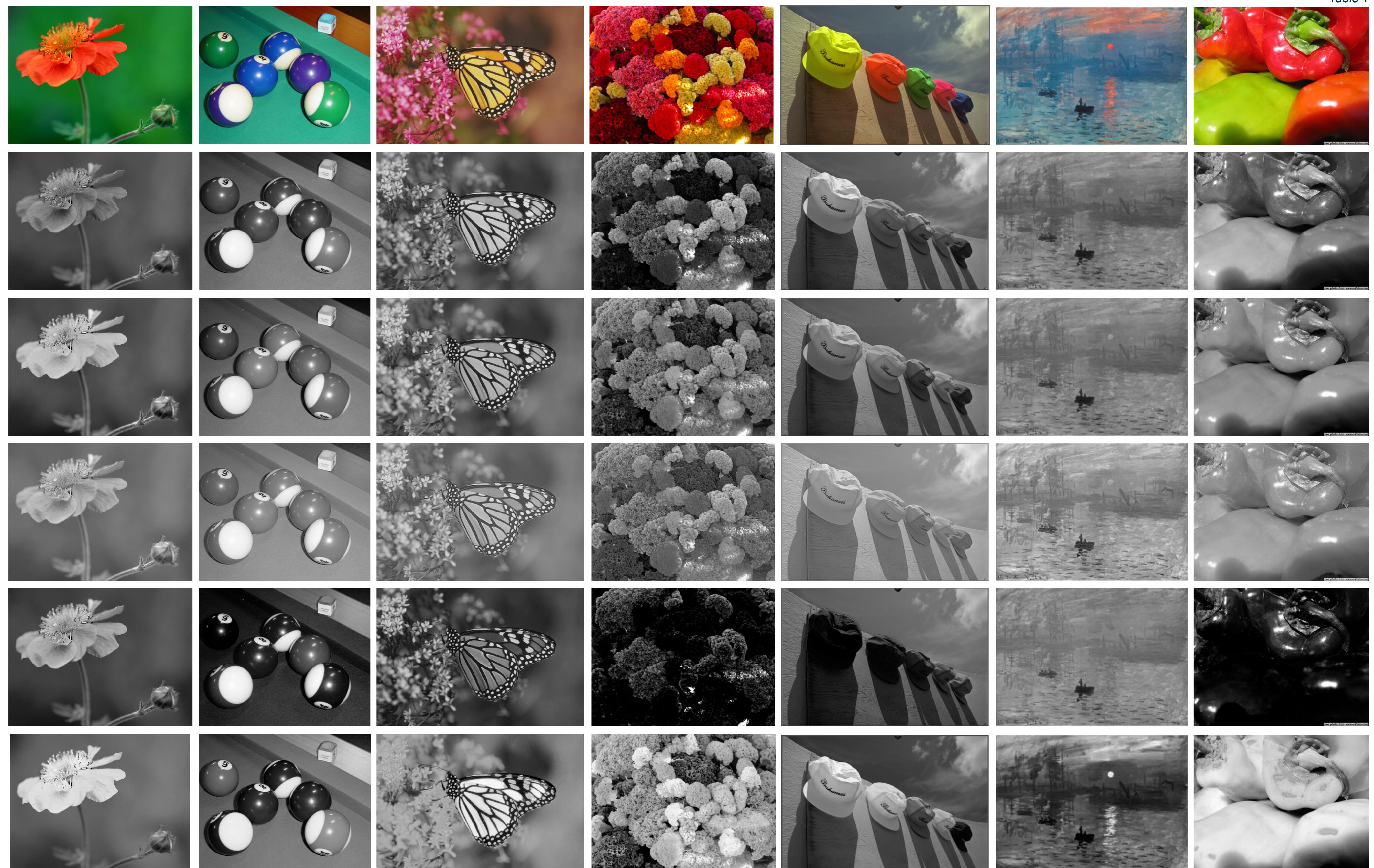


Fig. 7

Original Luminance Ambalat.21 Hafner16 Yu21 Zhang08



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