

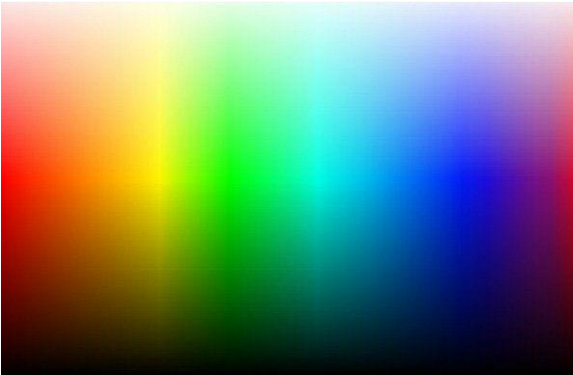
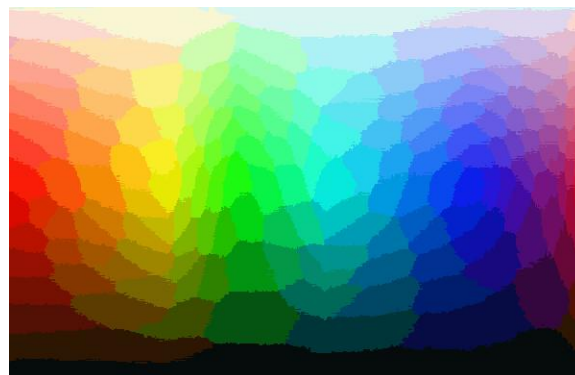


## **Extra Credit 2**

April 5, 2025

Shahrez Ahmad (ssa136)  
(worked individually)

**Images Used:**

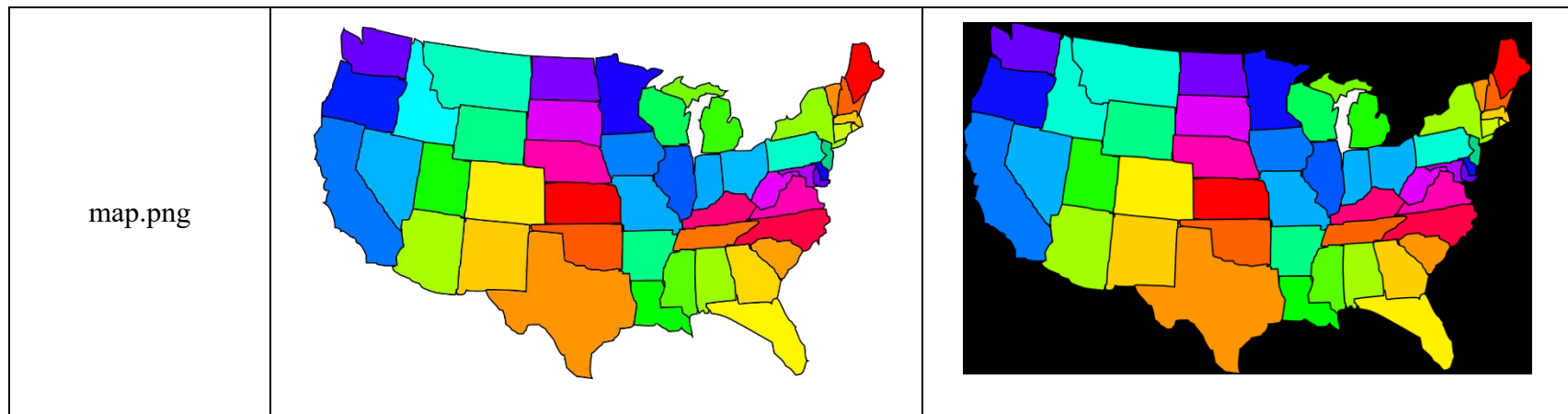
Image Name	Original	C kernel 8-bit colormap
city.jpeg		
colorspectrum.jpg		

graffiti.png



landscape.jpg





Note: For map.png, the original image contains transparent pixels. Our programs do not handle transparent pixels, so they are outputted as pixels with no color by our program, resulting in the black border in the corresponding C image.

**Computer Specification:**

Processor: Intel(R) Core(TM) i7-14700K

Memory: 32342040 kB

Operating System: Ubuntu 22.04.5 LTS

**Language Performance:**

Image Name	Width	Height	Pixels	seed	iterations	Python time (sec)	C Kernel Time (sec)
city.jpeg	612	408	249,696	214	3	4.61	0.18
graffiti.png	800	800	640,000	214	3	11.68	0.45
landscape.jpg	1920	1080	2,073,600	214	3	38	1.44
map.png	1280	790	1,011,200	214	3	18.26	0.7
colorspectrum.jpg	600	388	232,800	214	3	4.29	0.16

Average time per pixel (usec)	
Python	15,368,000
C	586,000