



KONSTRUKCIJA SLIKE POMOĆU OPTIMIZACIJSKI ALGORITAMA

FILIP BARBARIĆ

DEFINICIJA PROBLEMA



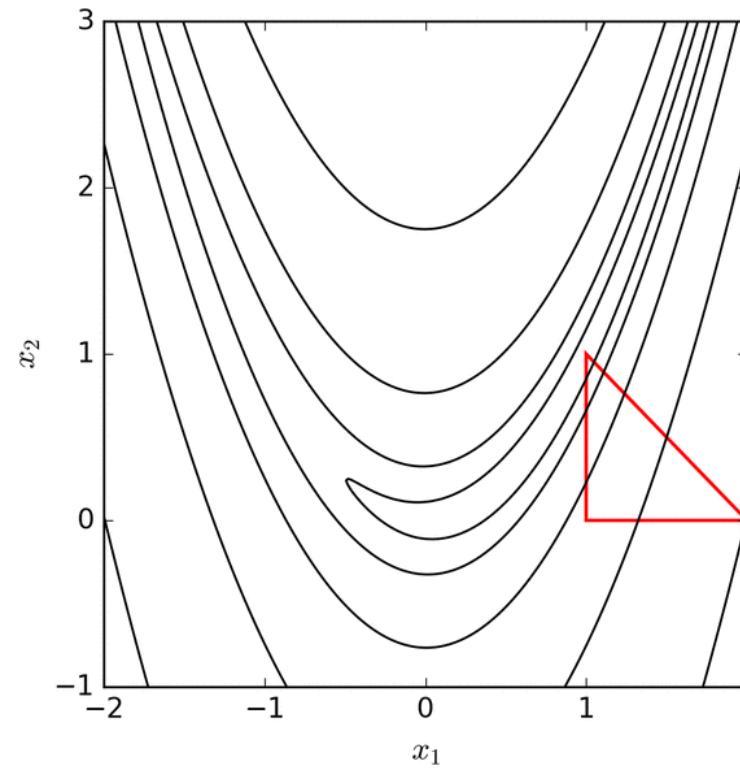
EVOLUCIJSKO PROGRAMIRANJE

- Svako rješenje je niz centroida i boja dijagrama i oni čine sliku
- Funkcija kazne je absolutna razlika između slika
- Populacija je niz slika
- Selekcija k Turnir
- Križanje
- Mutacija

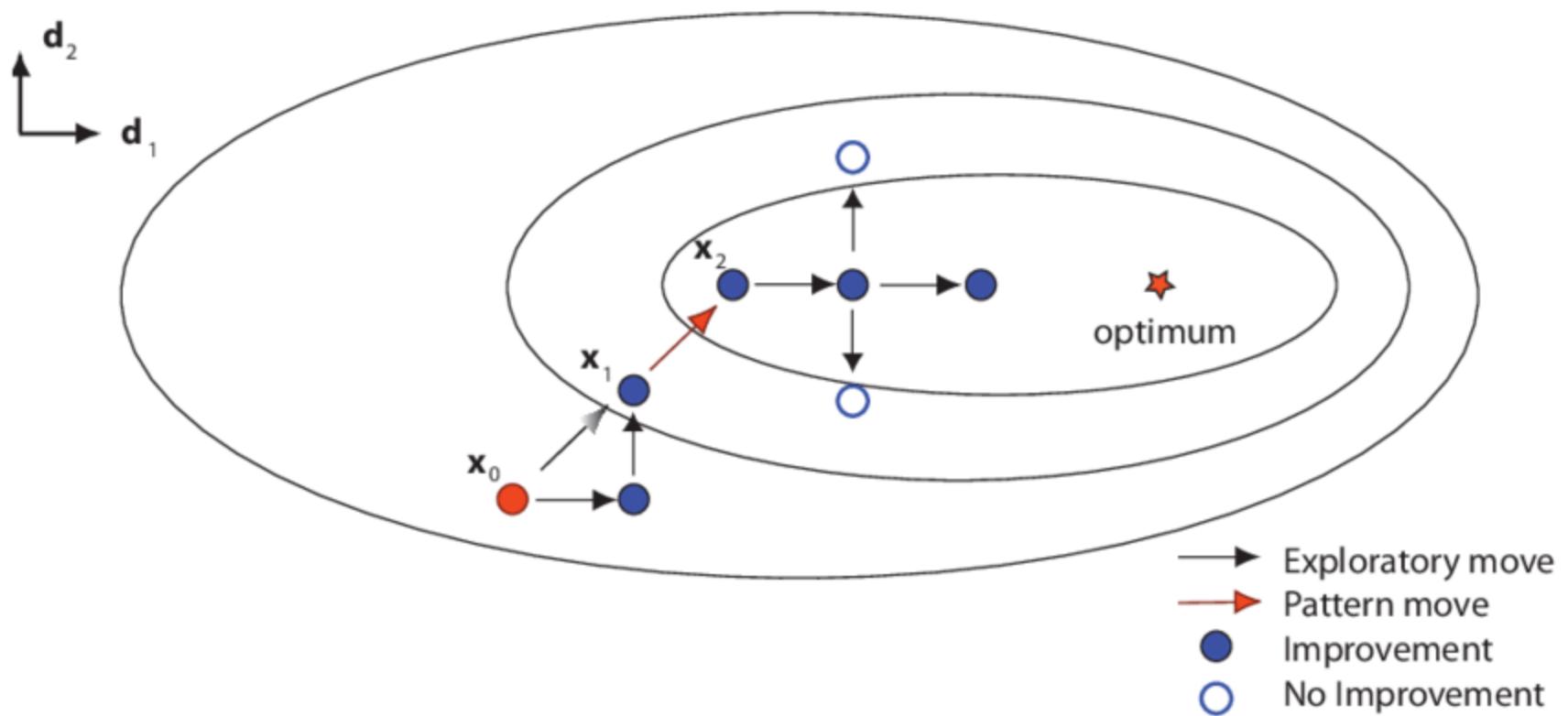
NUMERIČKE METODE OPTIMIZACIJE

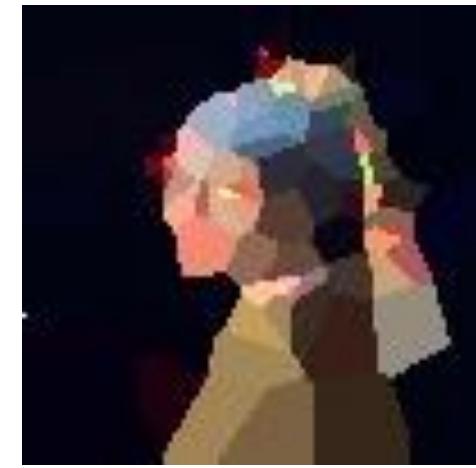
- Gradijenti spust
- Problem računanja derivacija
- Simpleks Nelder Mead
- Hooke-Jeeves

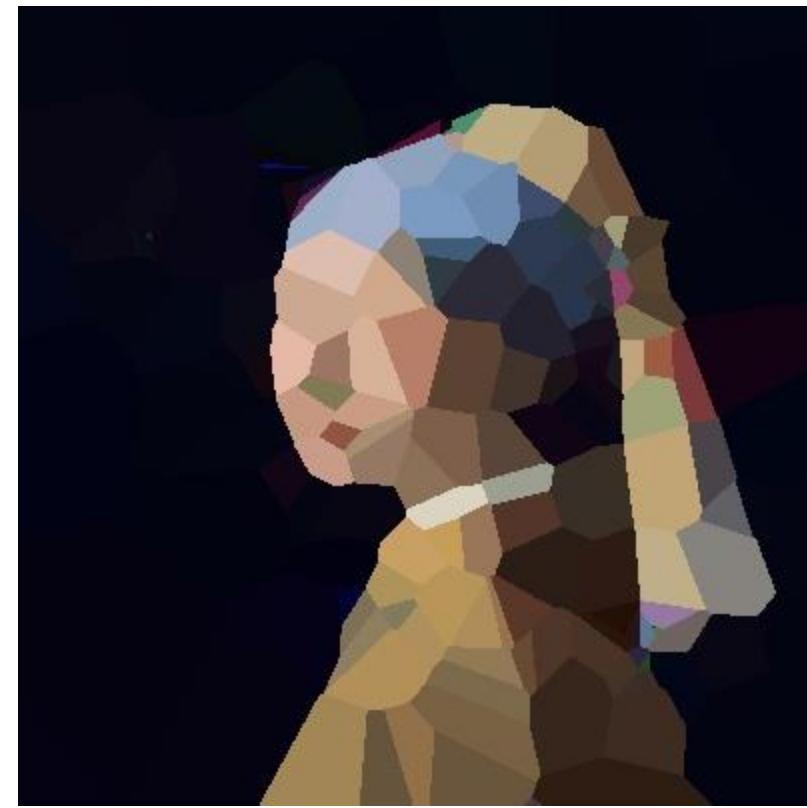
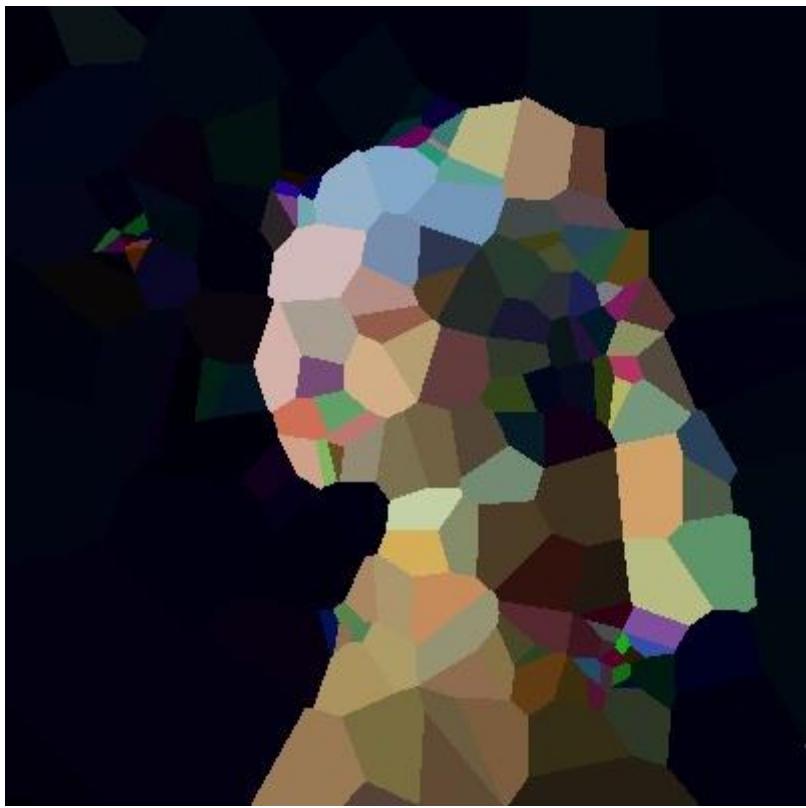
SIMPLEKS NELDER MEAD

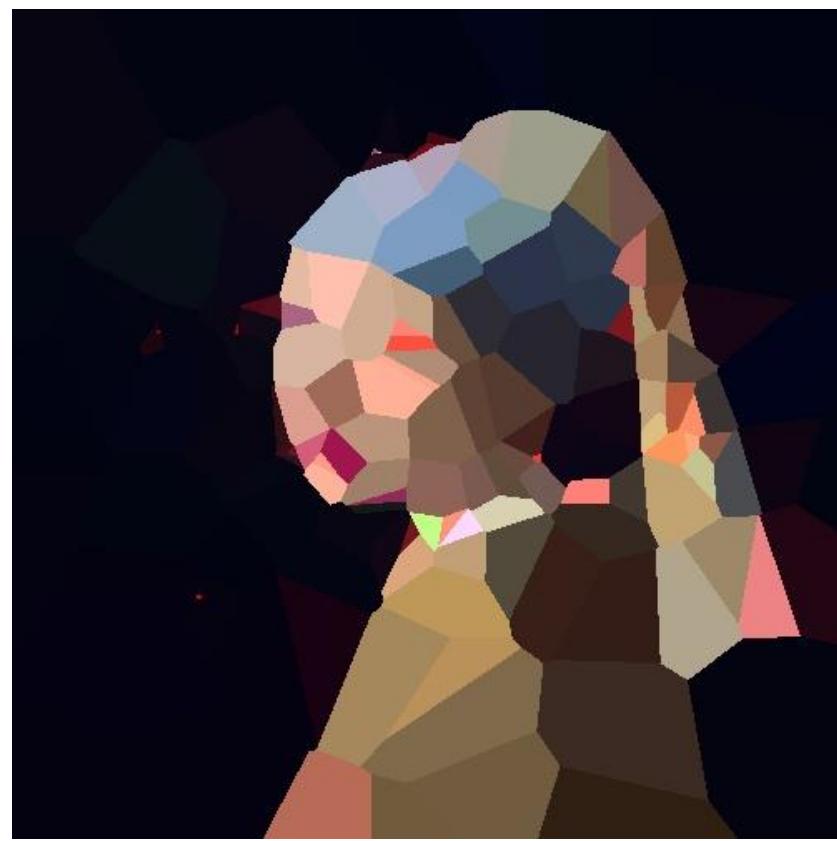
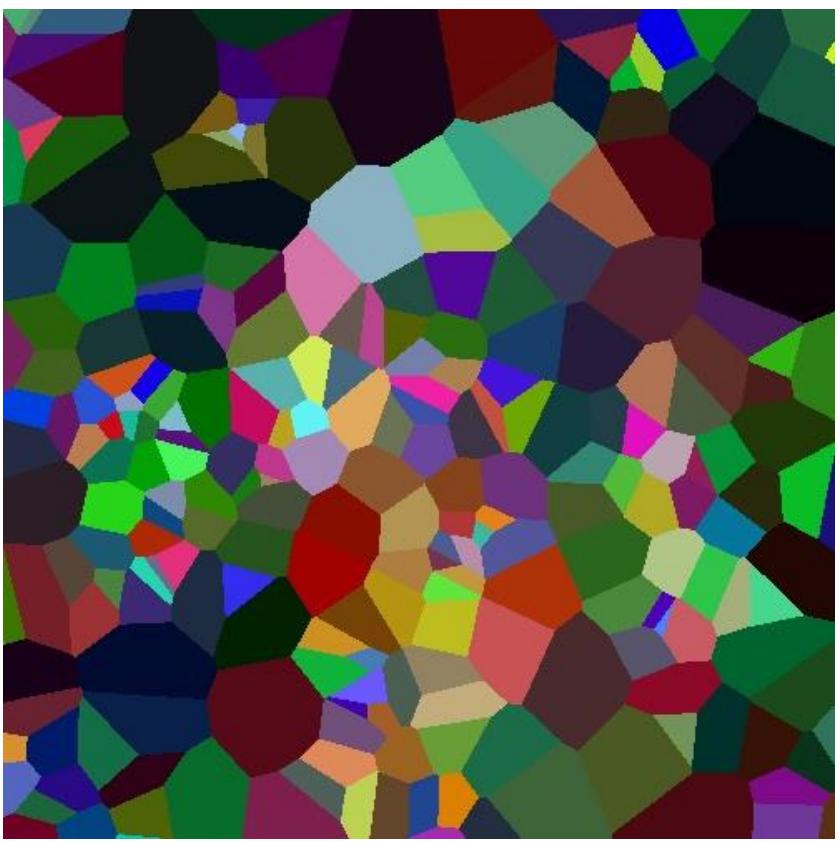


HOOKE-JEEVES

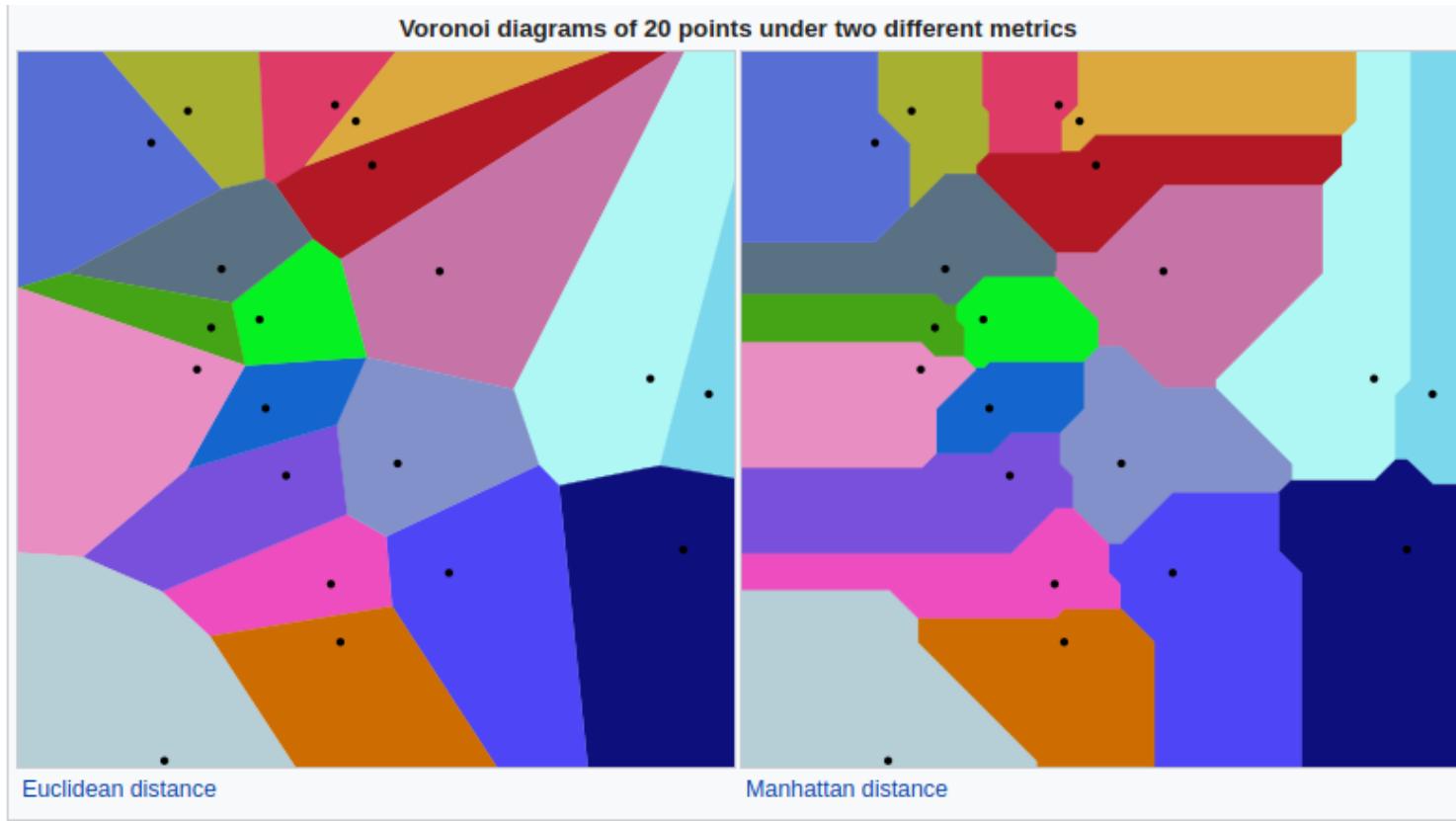


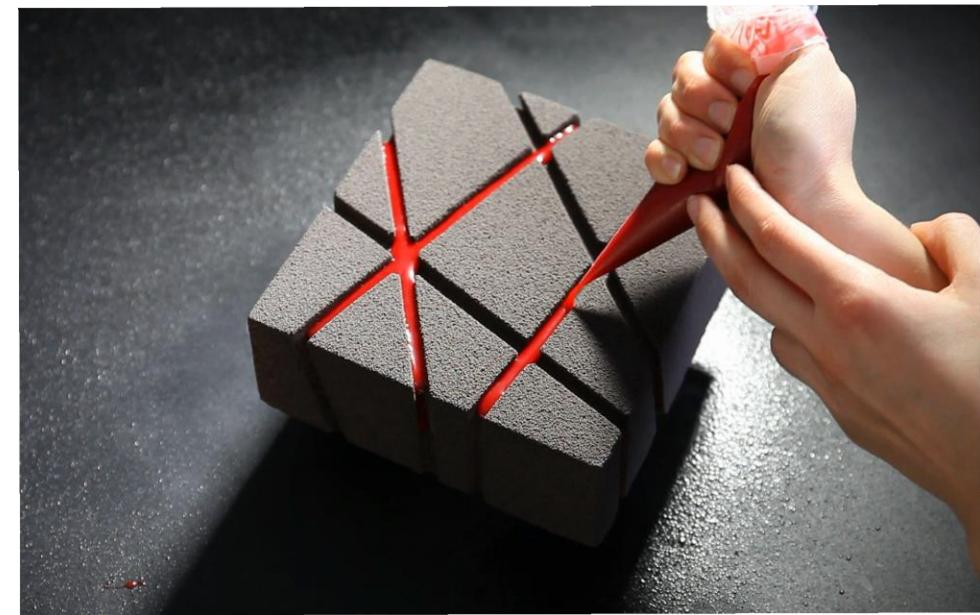
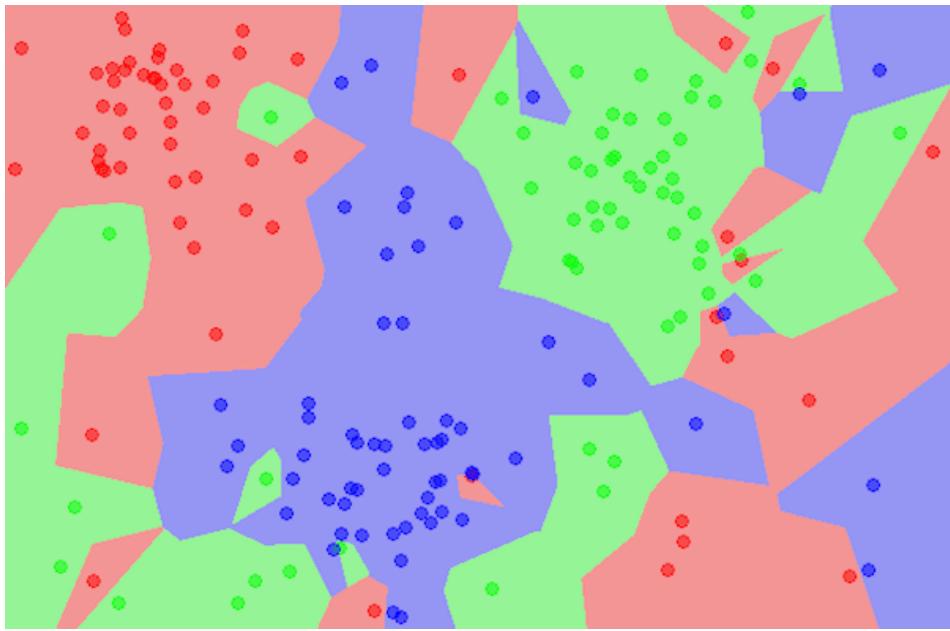






VORONOJEV DIJAGRAM

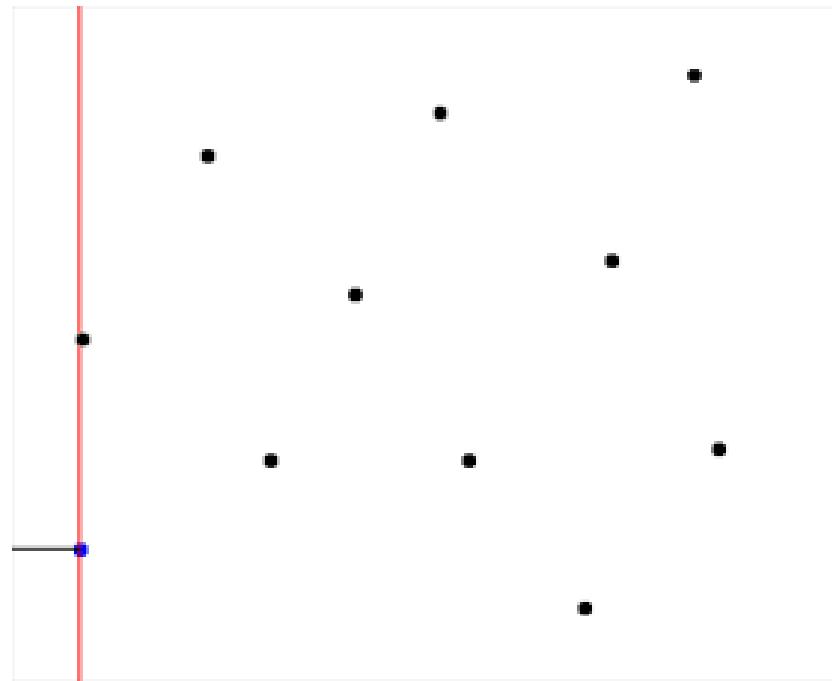




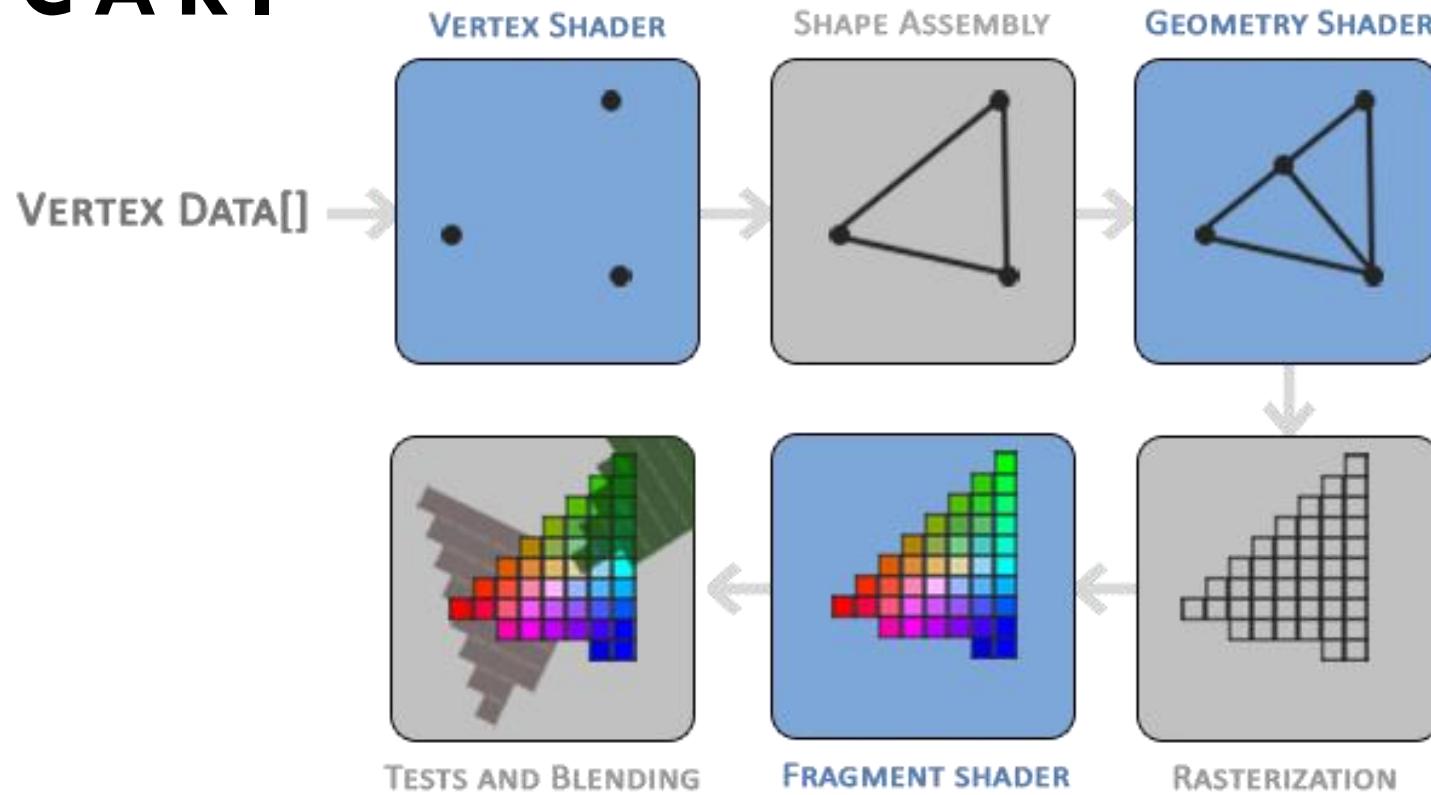
KAKO NACRTATI VORONOJEV DIJAGRAM

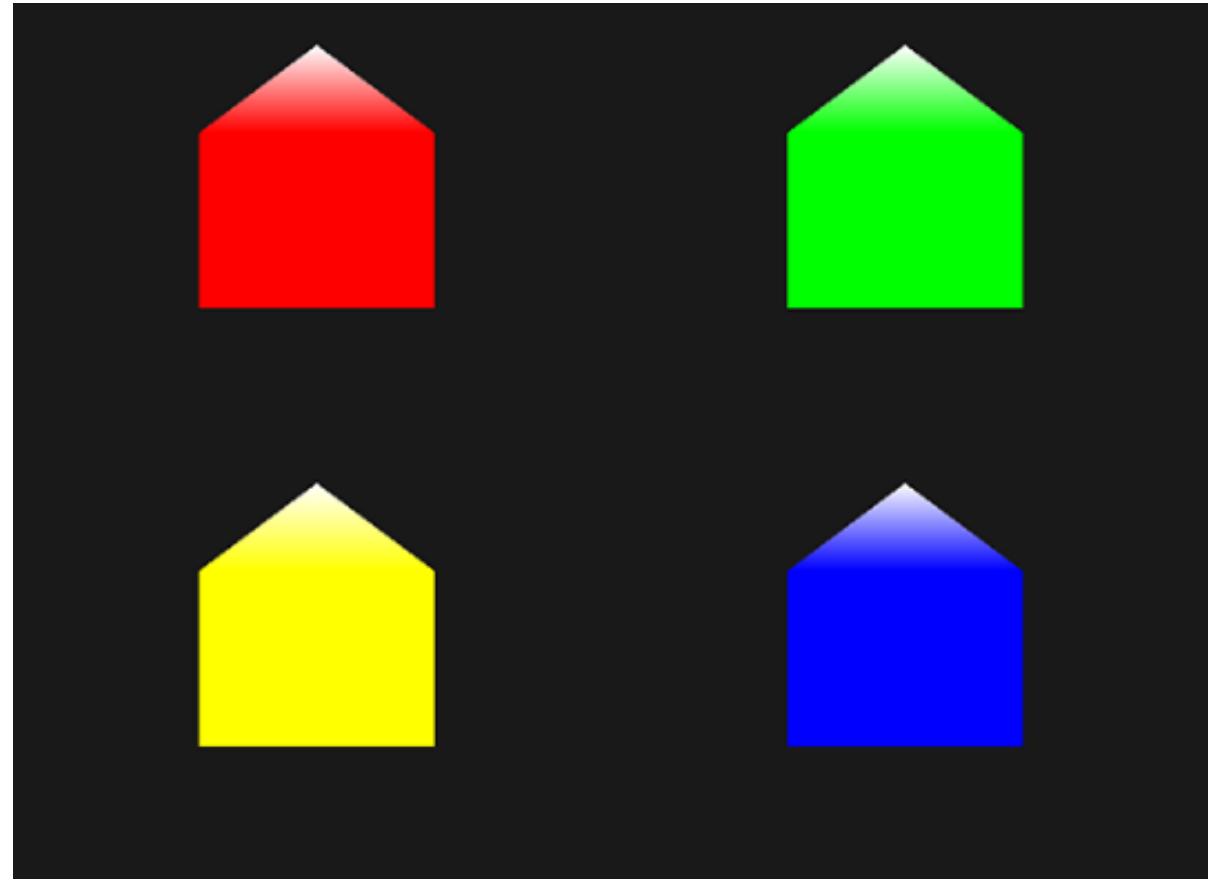
- Naivan način
 - Za svaki piksel računamo udaljenost do svih centroida
 - Bojamo pixel u boju centroma koji ima najmanju definiranu udaljenost

FORTUNOV ALGORITAM

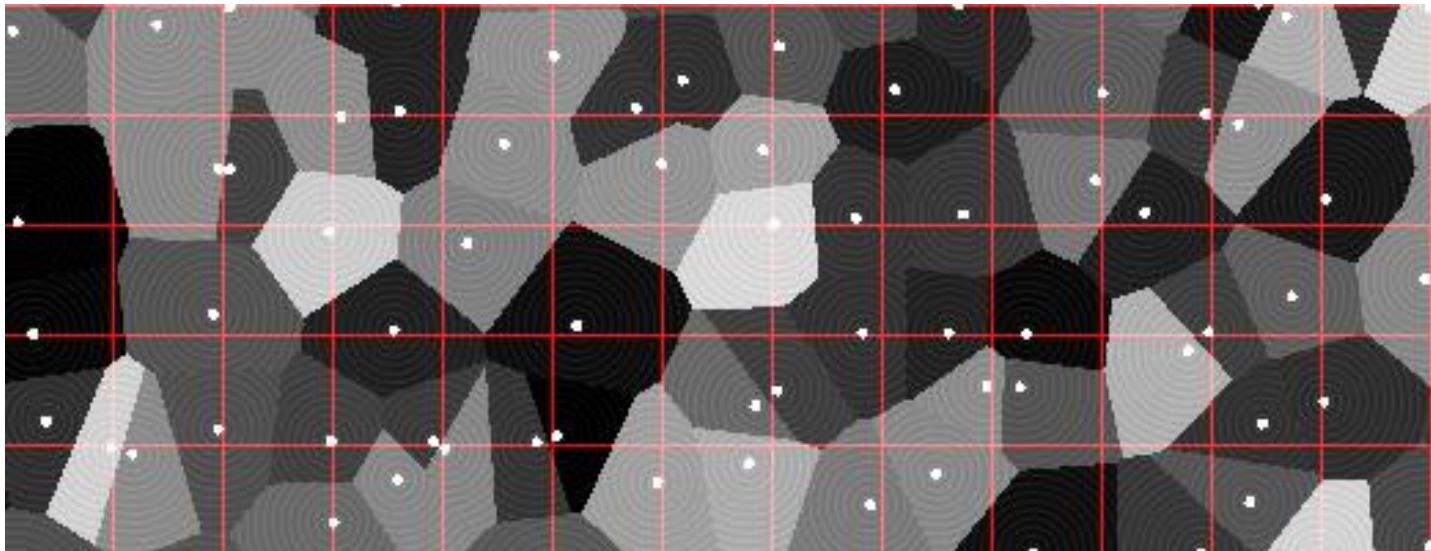
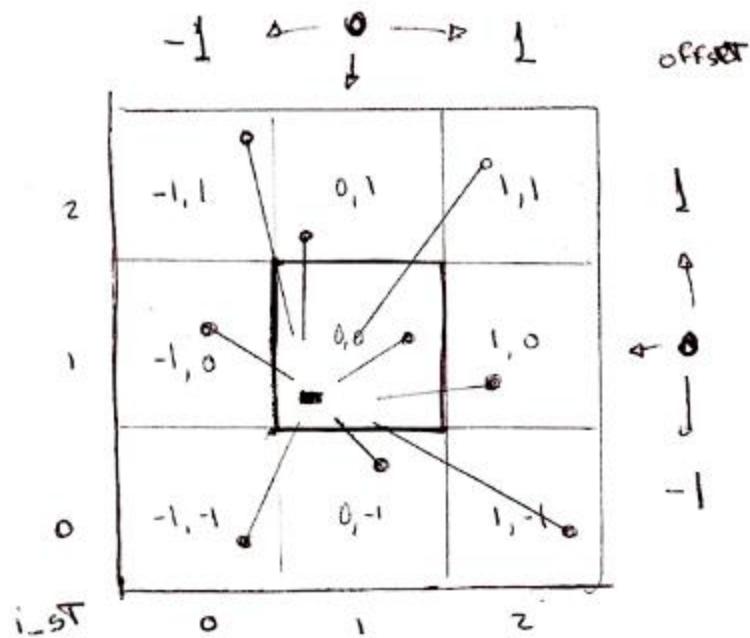


SJENČARI

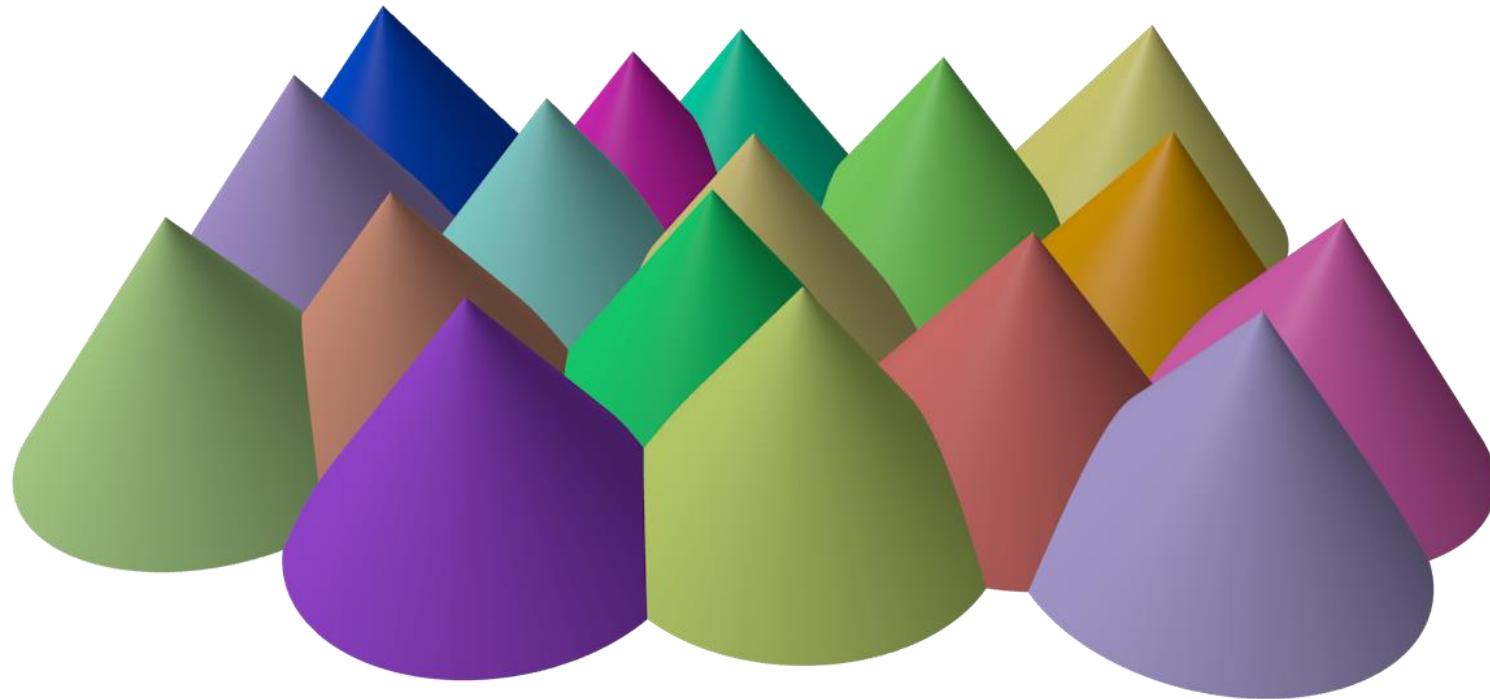




TABLICNI NAČIN



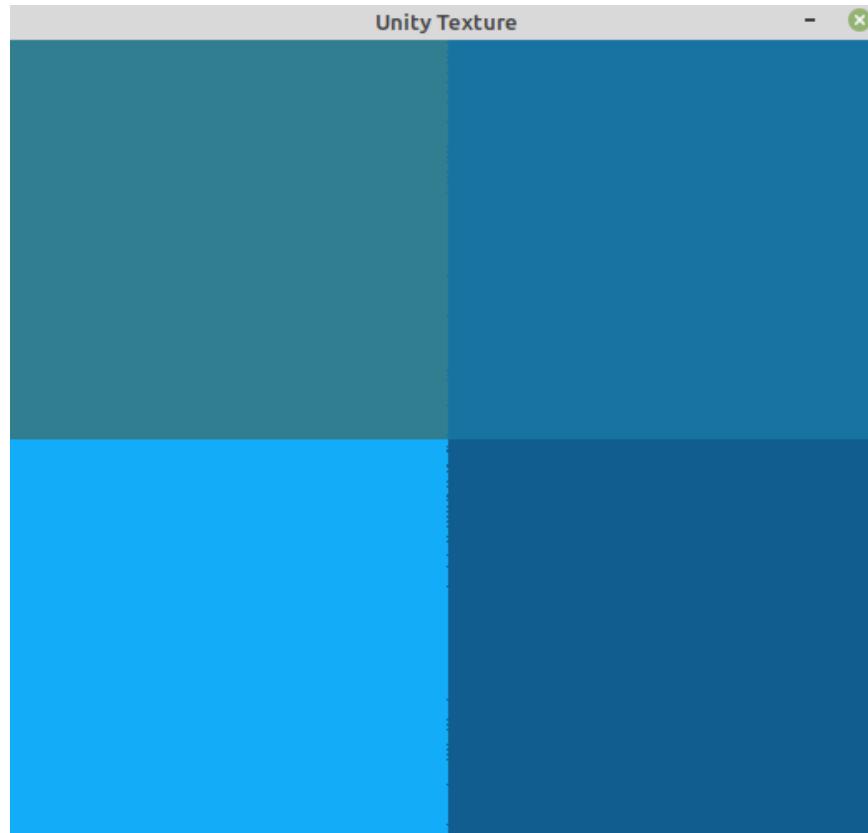
NAČIN CRTANJA POMOĆU STOŽACA







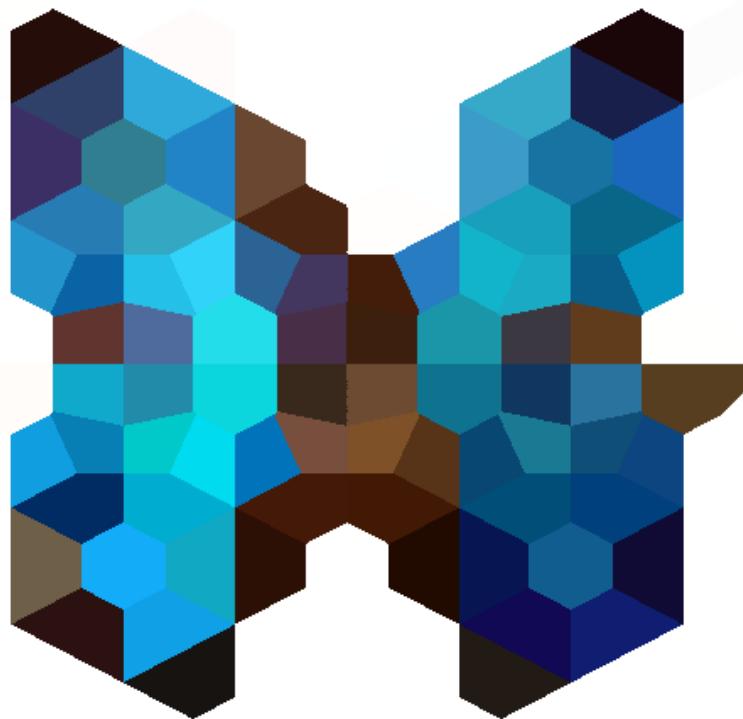
Original image

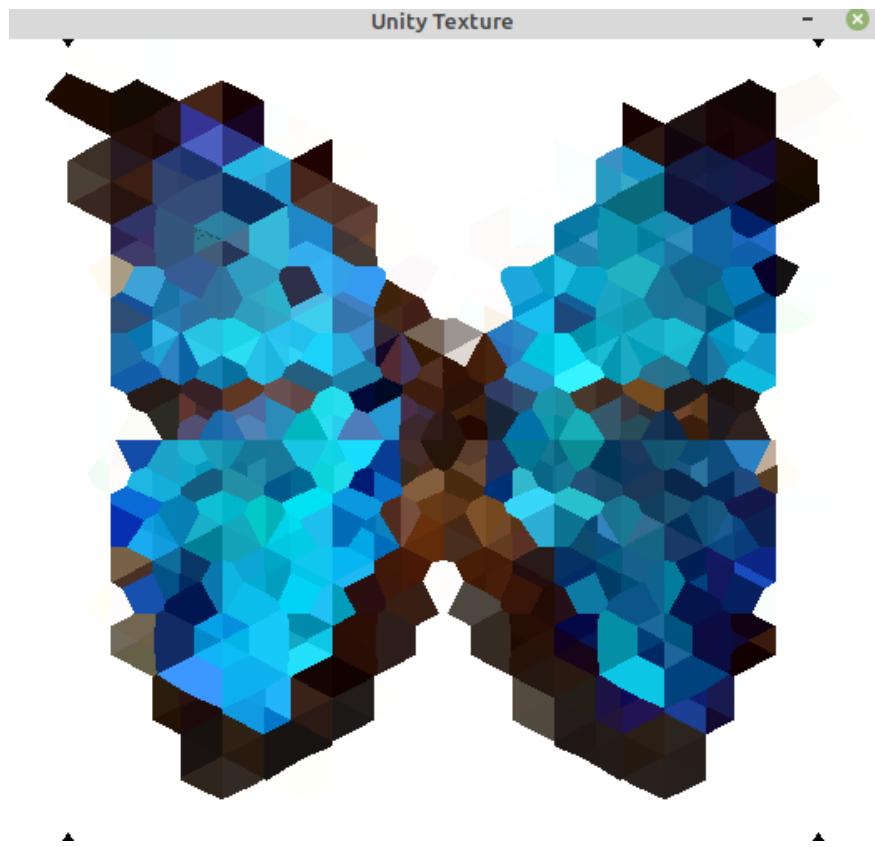


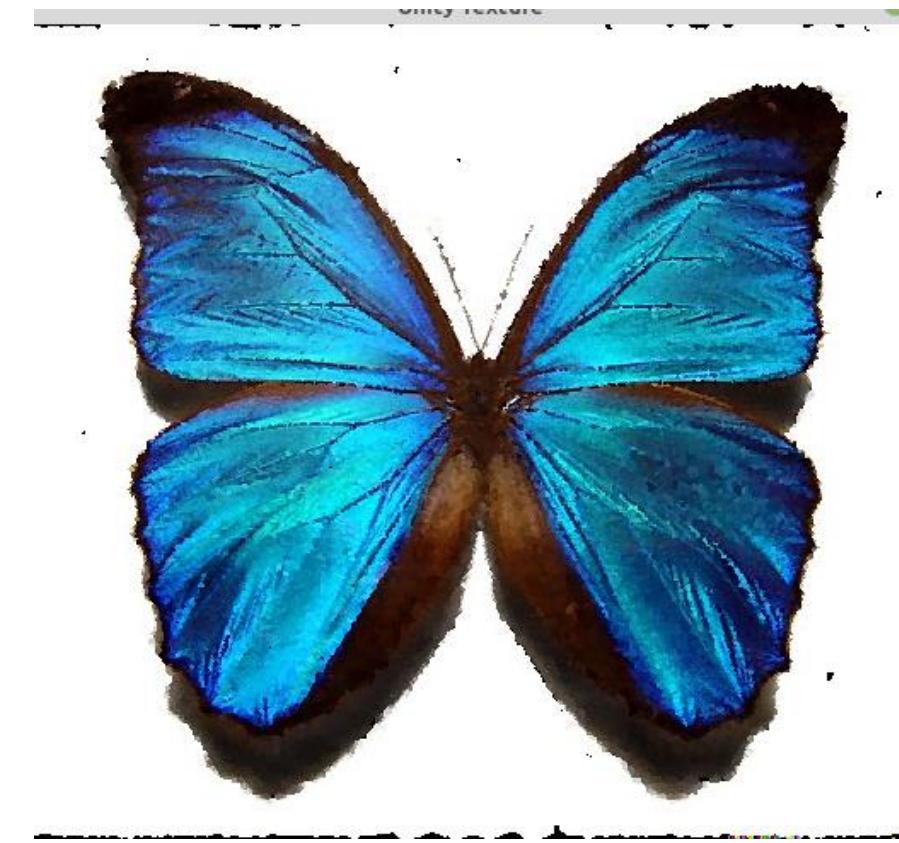
Unity Texture - 

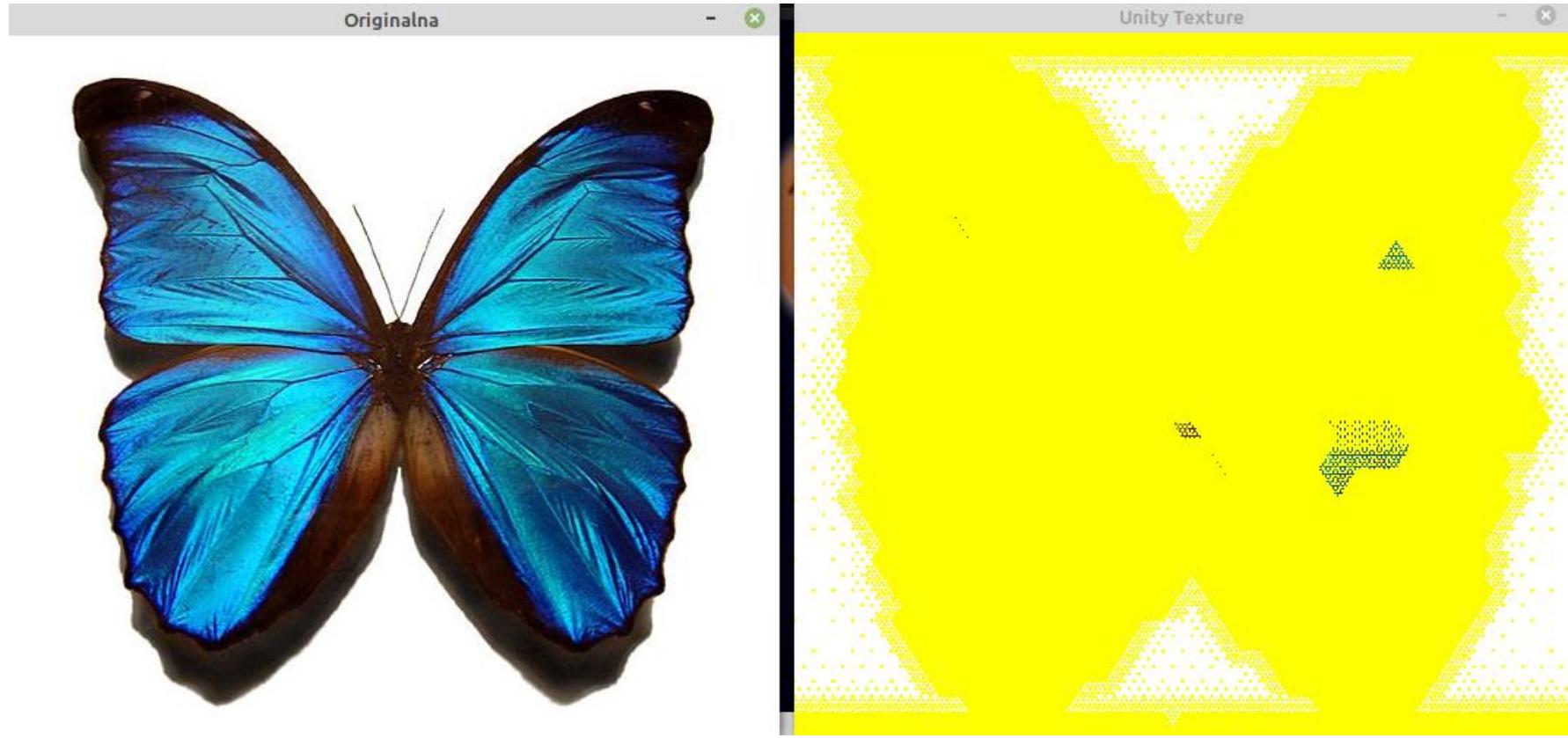


Unity Texture

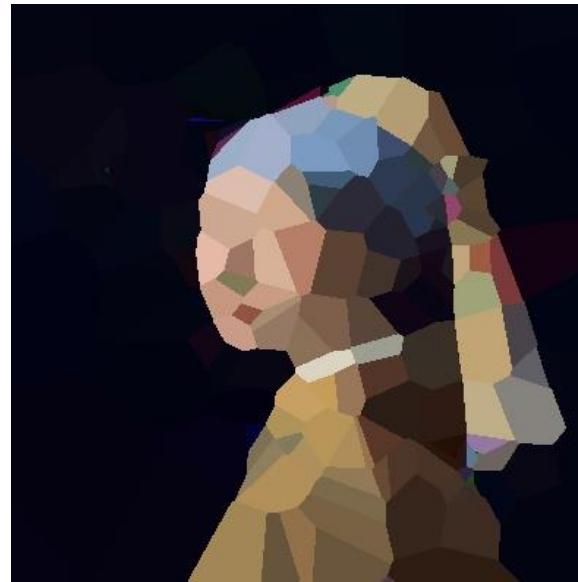
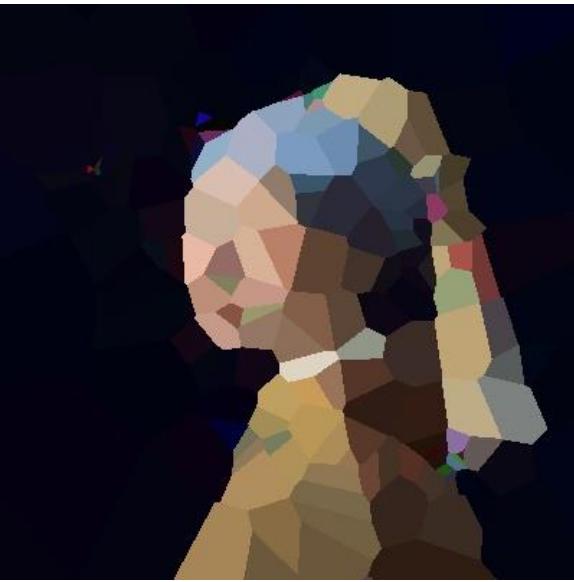
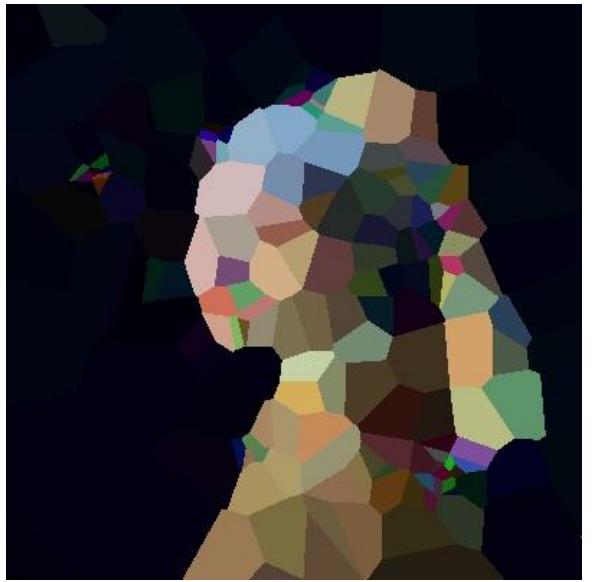
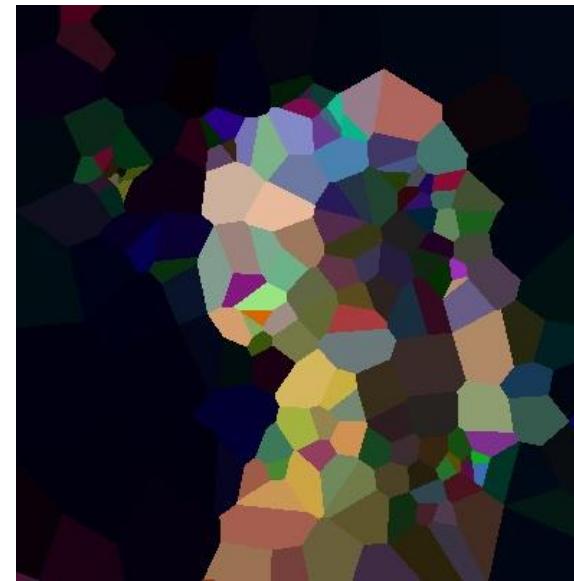
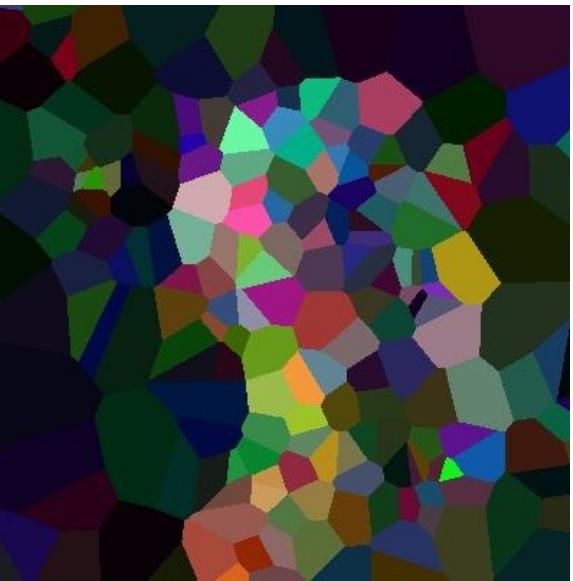














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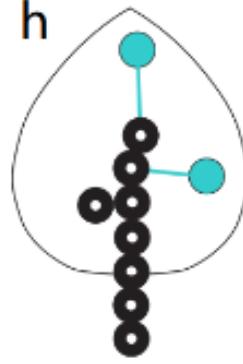
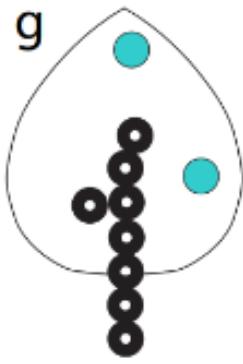
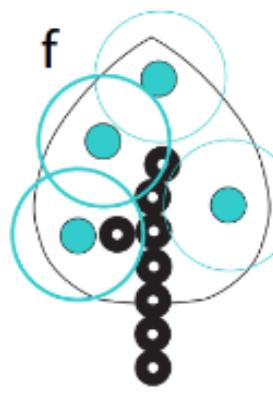
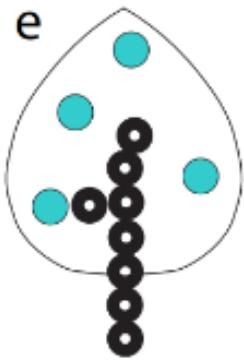
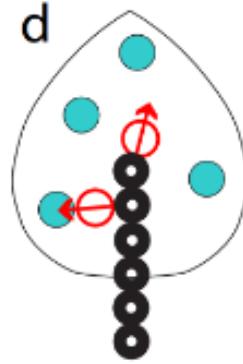
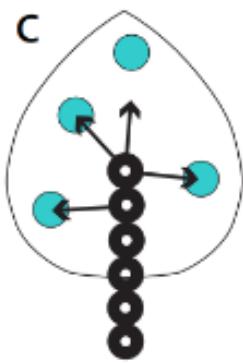
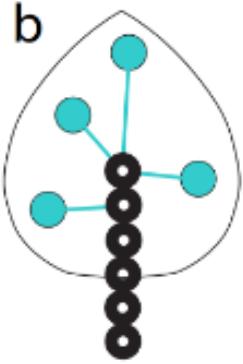
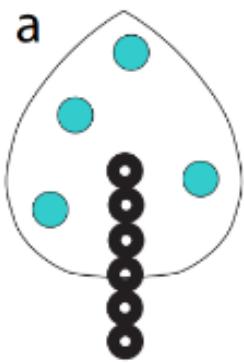


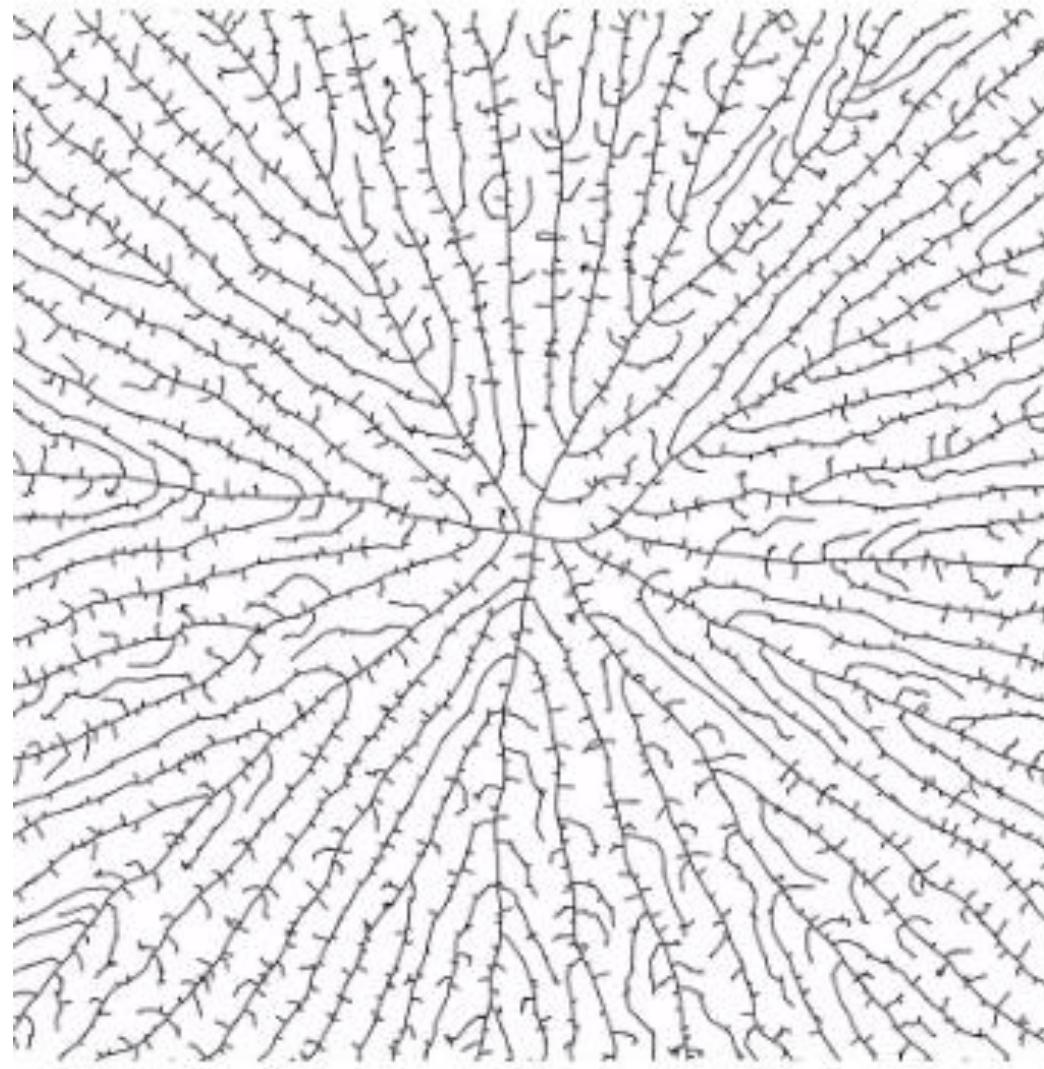
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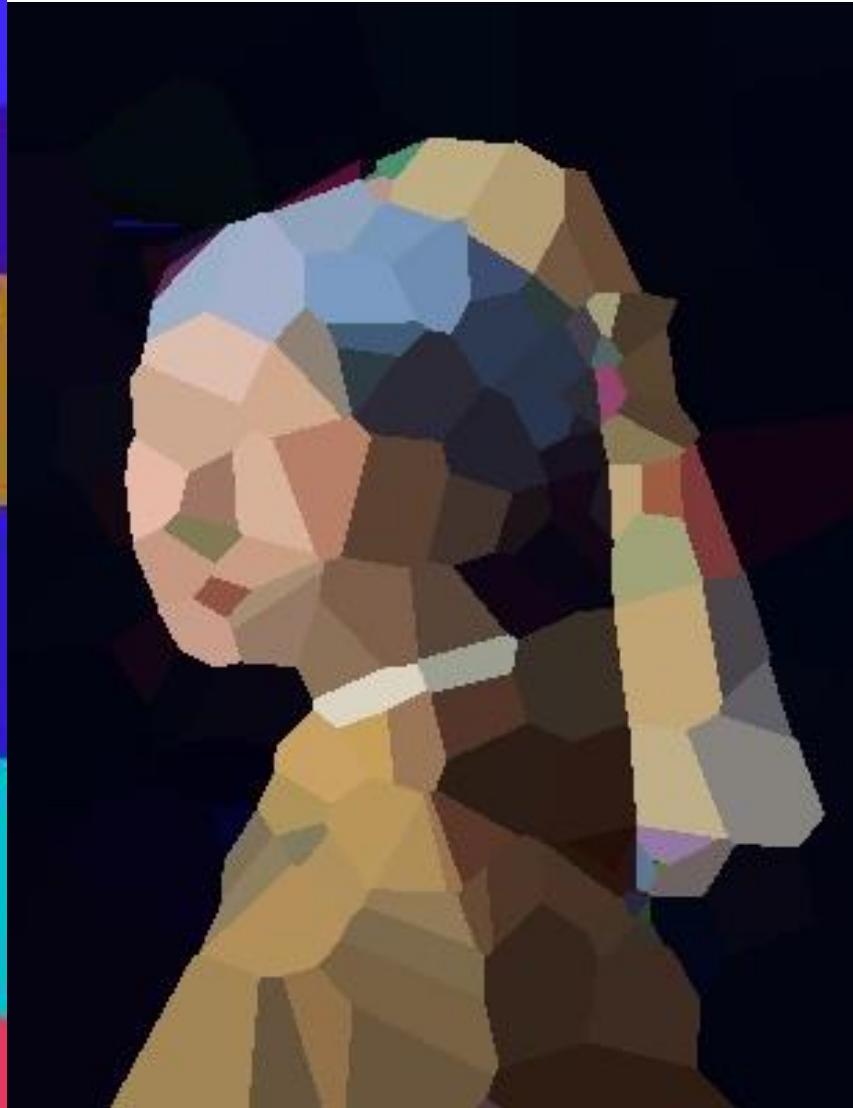
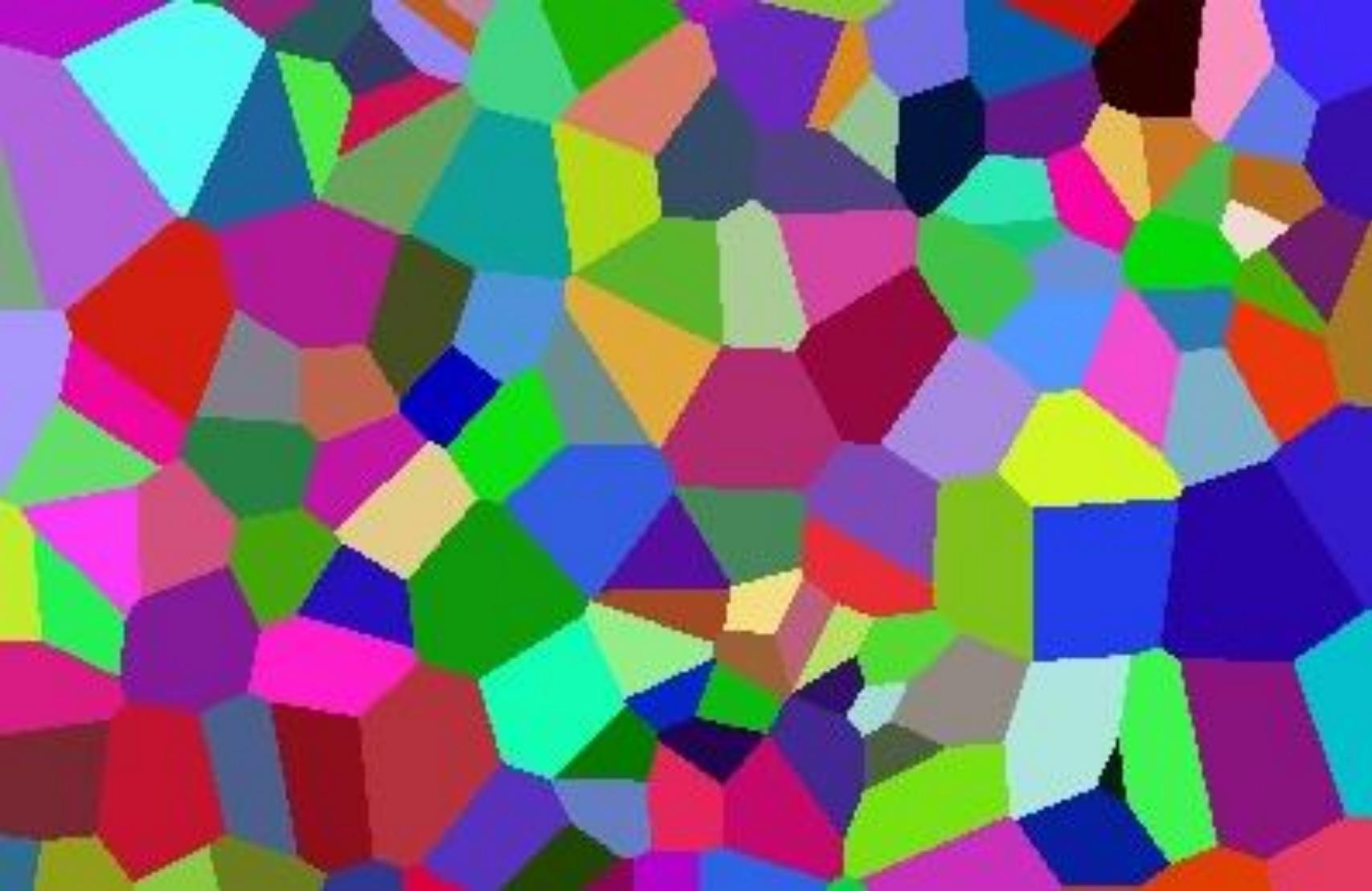


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HVALA