

Stat 232A–CS266A : Matlab/C Exercise / project #3

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Original images:

I resize all the original texture images to size 256*256.

Julesz ensemble sampling:

For each iteration, I start from the image synthesized from last iteration instead of a new uniform noise image to do Julesz ensemble sampling.

Some parameters:

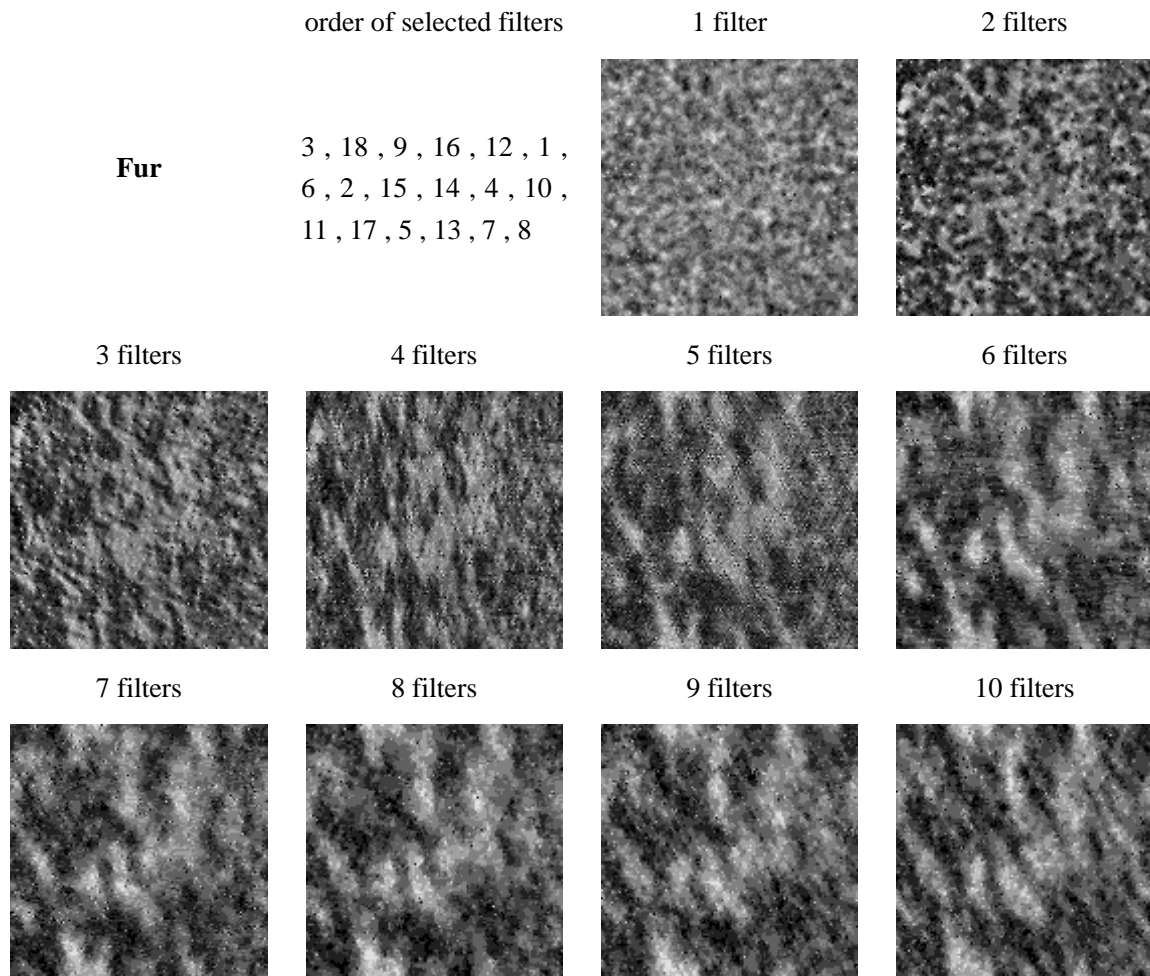
Initial T for annealing: $T = 0.02$

Color: 0~7

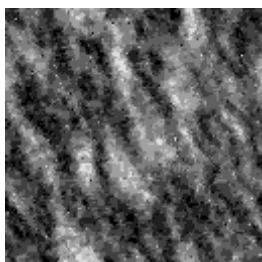
Number of bins: 15

Weight of each bin when calculate the histogram difference: [8, 7, 6, 5, 4, 3, 2, 1, 2, 3, 4, 5, 6, 7, 8].

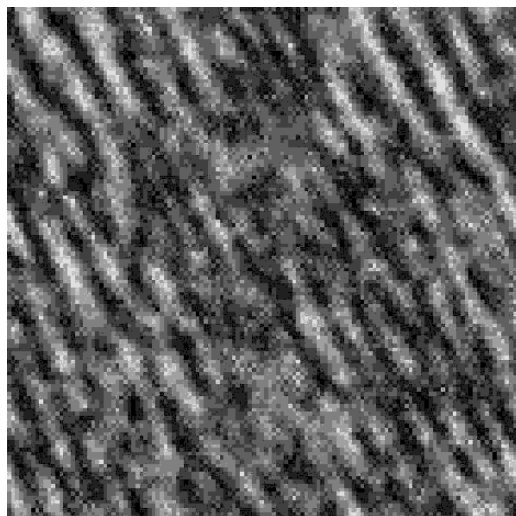
Results:



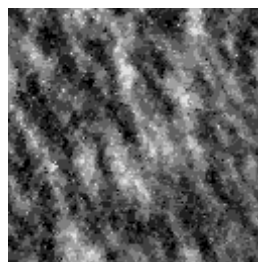
11 filters



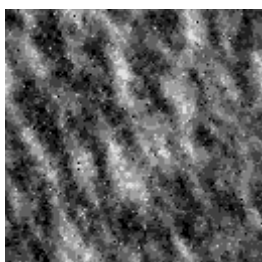
Original Texture



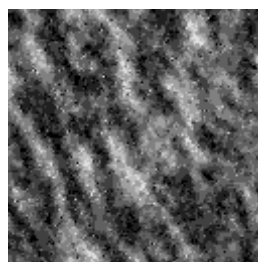
12 filters



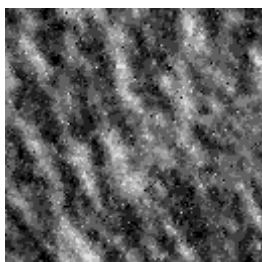
13 filters



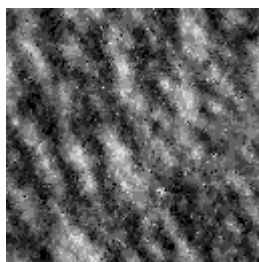
14 filters



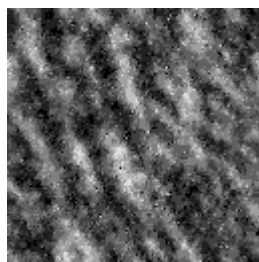
15 filters



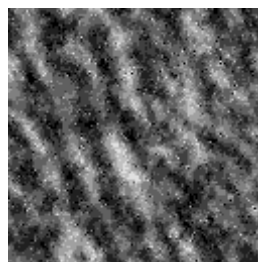
16 filters



17 filters

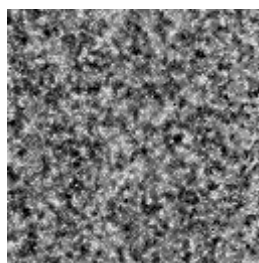


18 filters

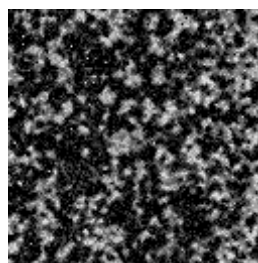


order of selected filters

1 filter



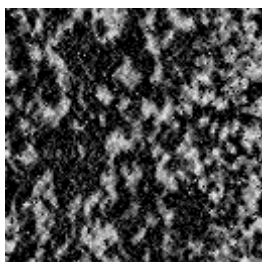
2 filters



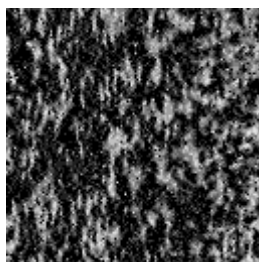
Grass

3, 18, 6, 12, 2, 14, 11,
17, 4, 8, 1, 13, 5, 10,
16, 15, 9, 7

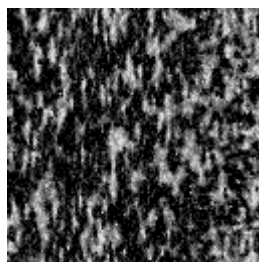
3 filters



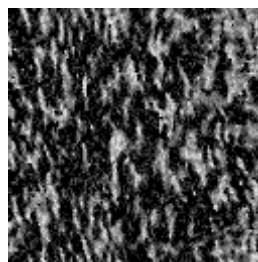
4 filters

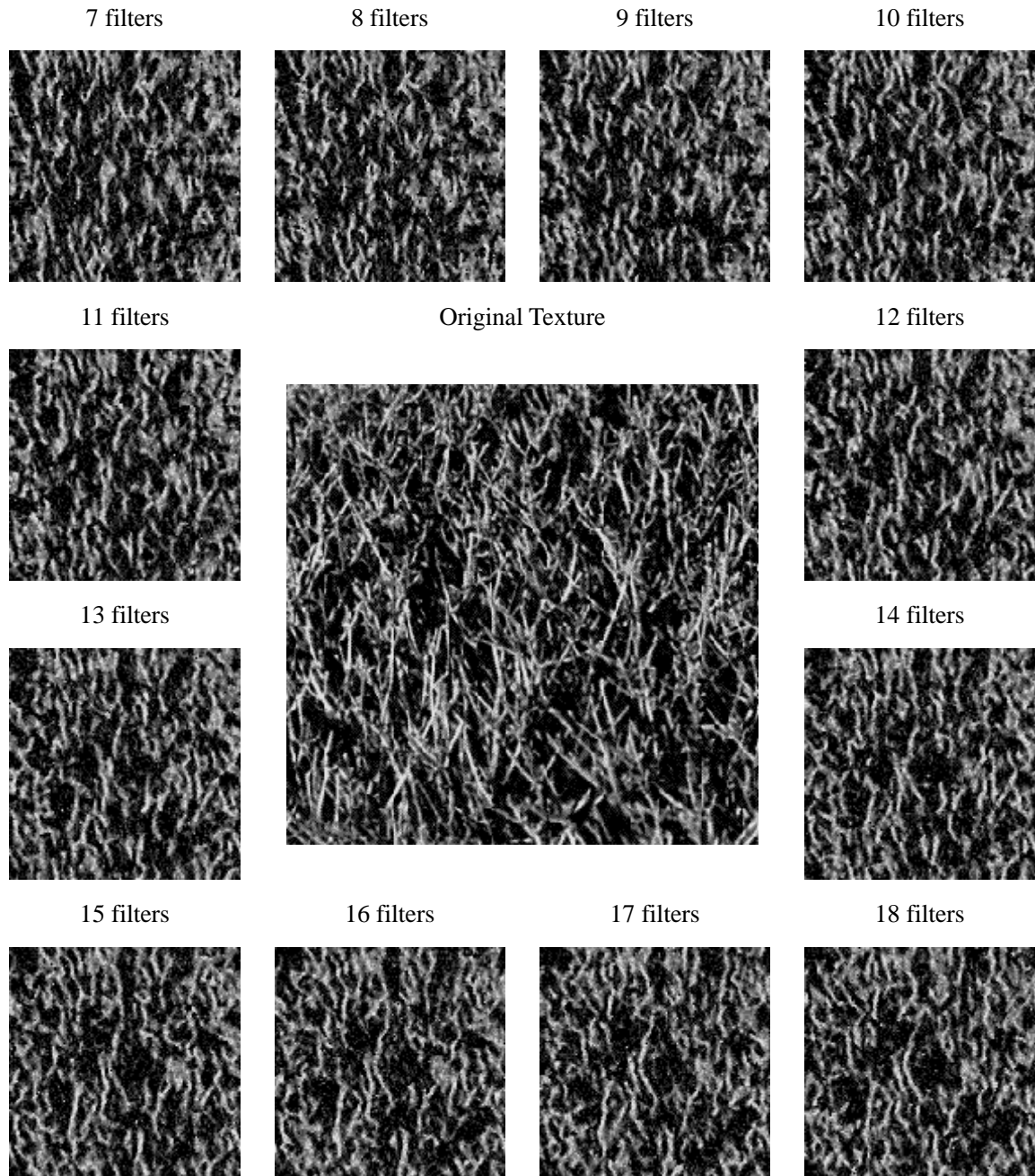


5 filters



6 filters



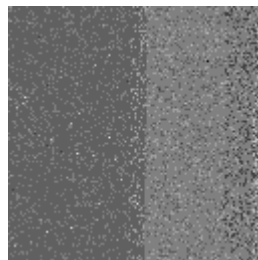


Stucco

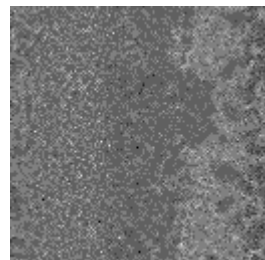
order of selected filters

18, 4, 9, 16, 1, 10, 2,
14, 3, 13, 7, 6, 15, 17,
11, 8, 12, 5

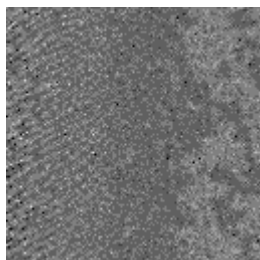
1 filter



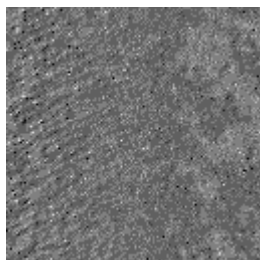
2 filters



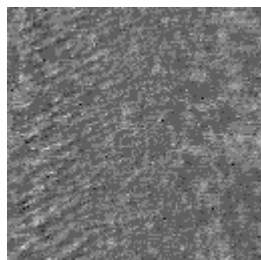
3 filters



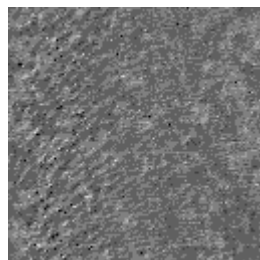
4 filters



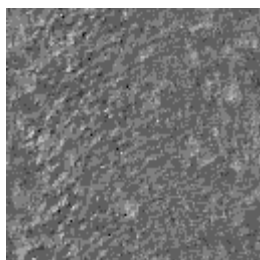
5 filters



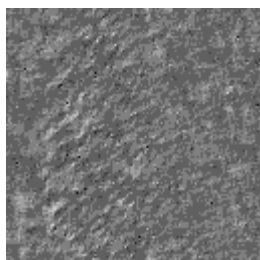
6 filters



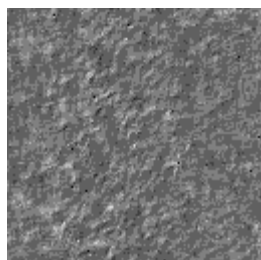
7 filters



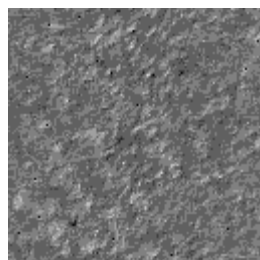
8 filters



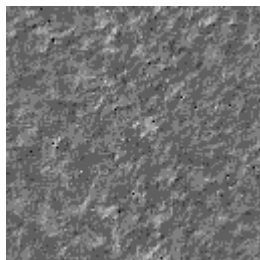
9 filters



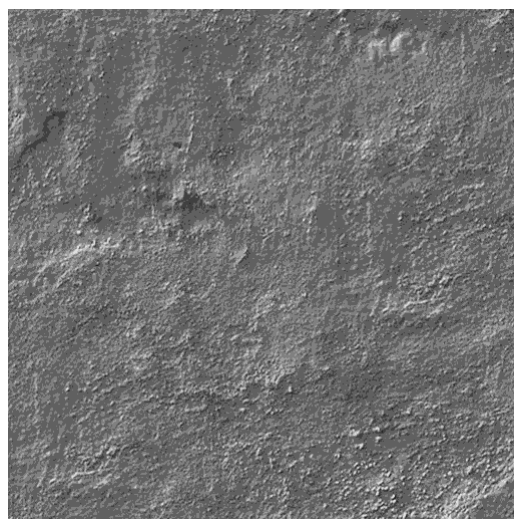
10 filters



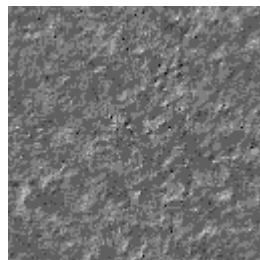
11 filters



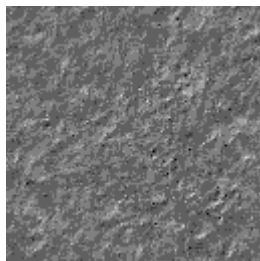
Original Texture



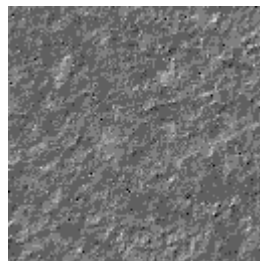
12 filters



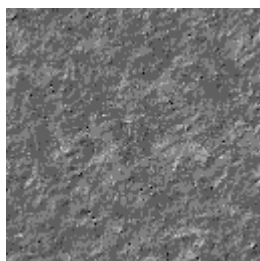
13 filters



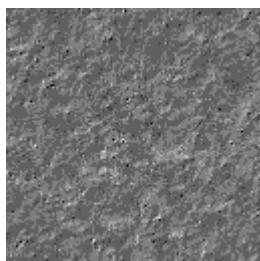
14 filters



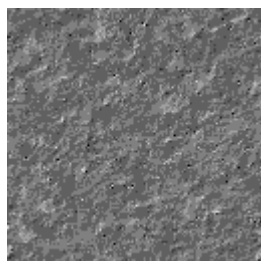
15 filters



16 filters



17 filters



18 filters

