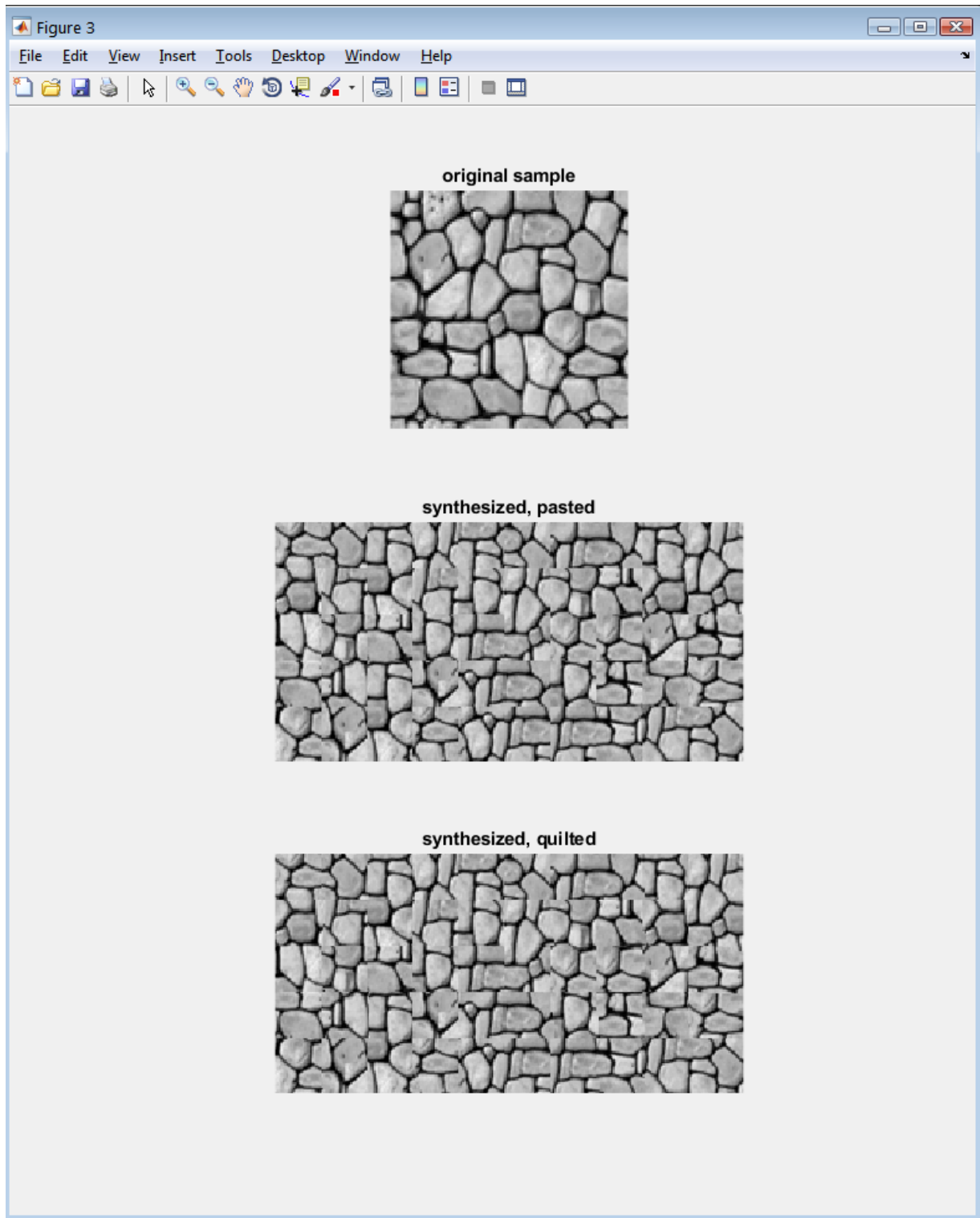


Part 1.

Default: $\text{tilesize} = 30$, $\text{overlap} = 5$, $k = 5$



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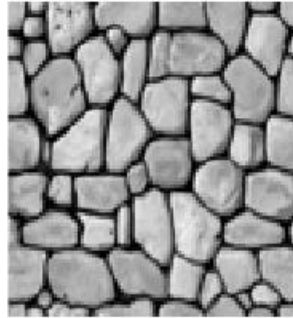
CS116

Write Up For HW 3

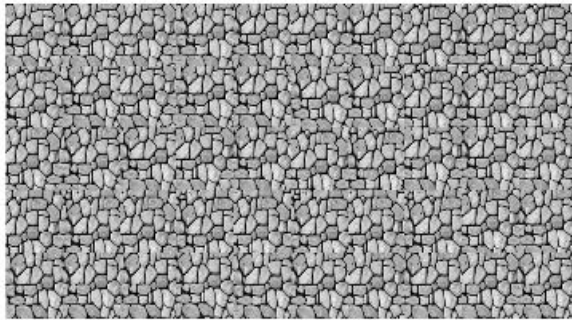
- 1) Increase Size: $\text{tilesize} = 80$, $\text{overlap} = 5$, $k = 5$

Result:

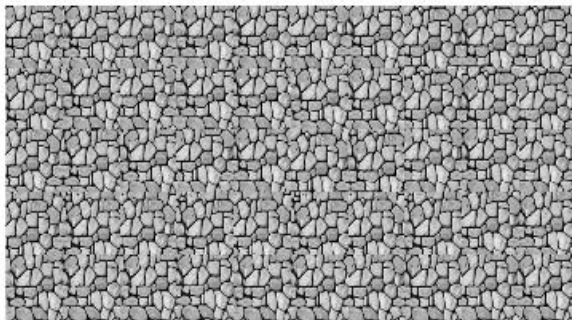
original sample



synthesized, pasted



synthesized, quilted



Explanation: When increasing the tile size, the size of each individual samples becomes much smaller. As a result there is a much higher resolution per size per sampling.

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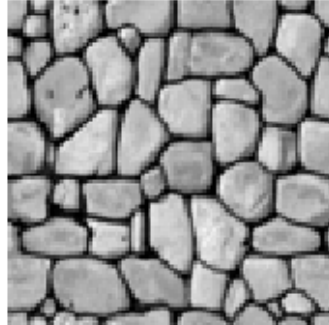
CS116

Write Up For HW 3

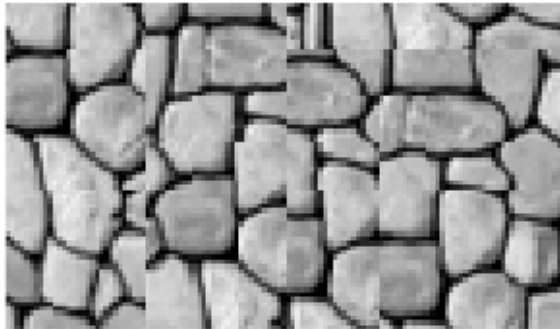
- 2) Increase Overlap $\text{tile size} = 30$, $\text{overlap} = 20$, $k = 5$

Result:

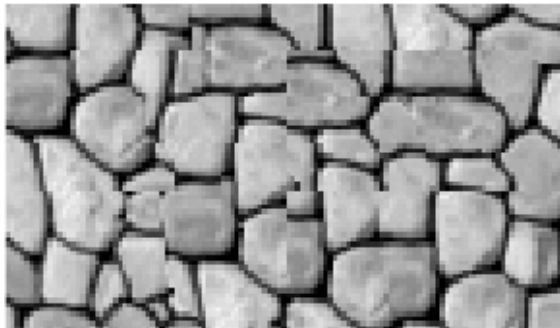
original sample



synthesized, pasted



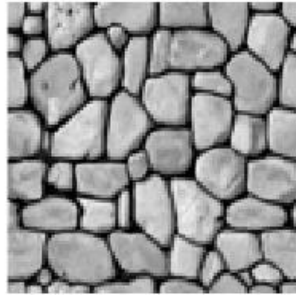
synthesized, quilted



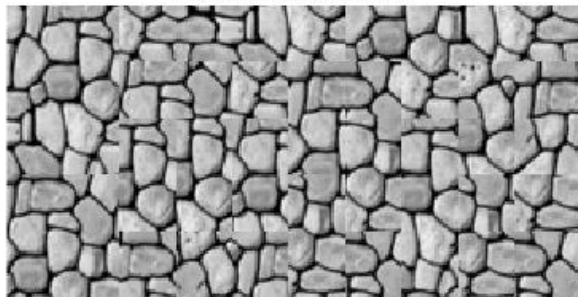
Explanation: Instead of 5 overlap, we increase the overlap up to 20. The result shows decrease in resolution due to many details being overlapped by the samplings. In addition, the stitches are more obvious in view, which is due to the overlaps.

- 3) Decrease the value for K $\text{tilesize} = 30, \text{overlap} = 5, k = 1$
Result:

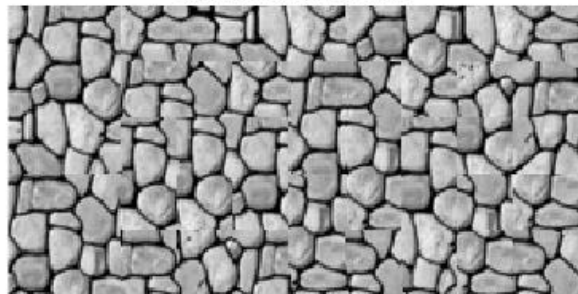
original sample



synthesized, pasted



synthesized, quilted



Explanation: Decreasing K does not change the result. The number of match top nearest neighbors is limited by K. So if there are more neighbors then larger K will be able to match them together.

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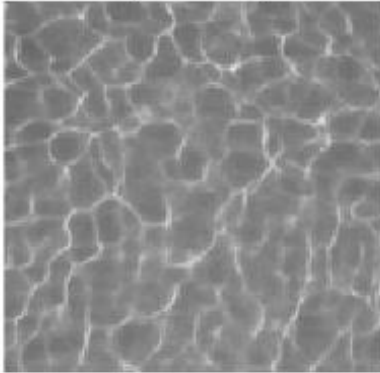
Write Up For HW 3

Part 2.

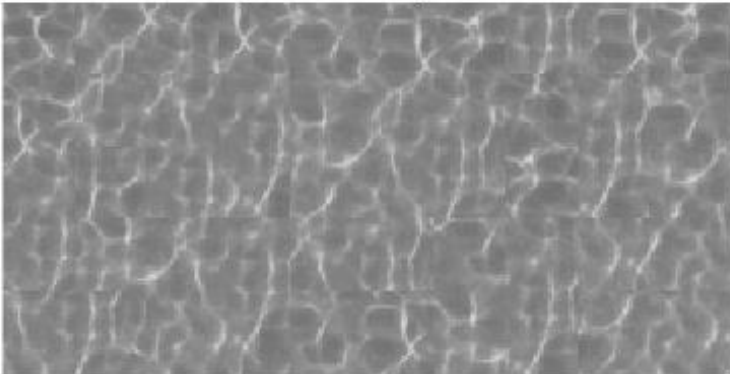
Image 1. Tilesize = 30, overlap = 5; $k = 1$

Water

original sample



synthesized, pasted



synthesized, quilted

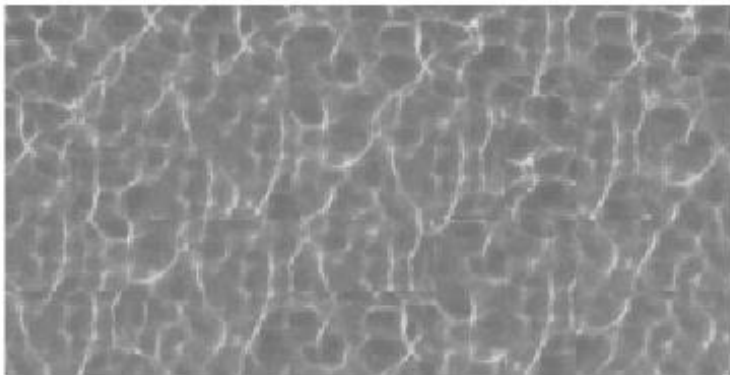
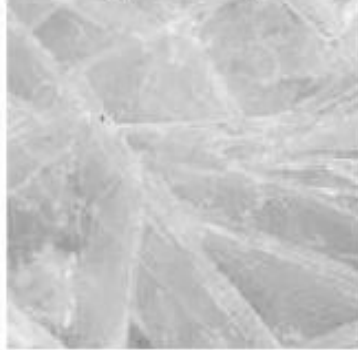


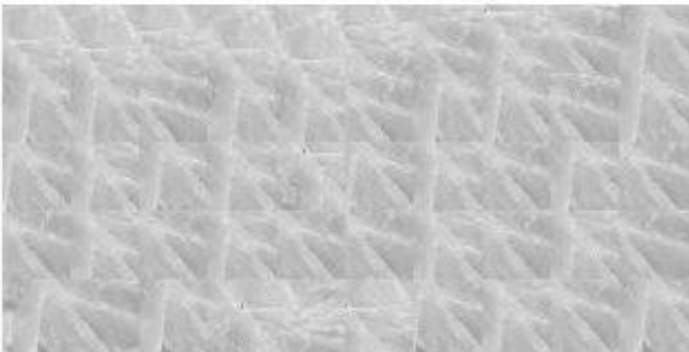
Image 2. Tilesize = 60, overlap = 5, k = 5

ICE

original sample



synthesized, pasted



synthesized, quilted

