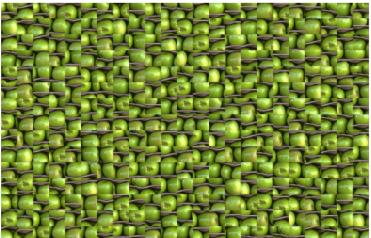
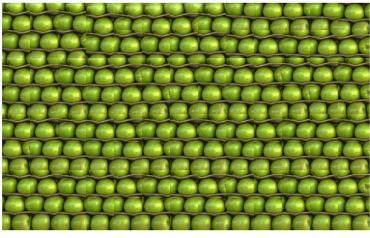
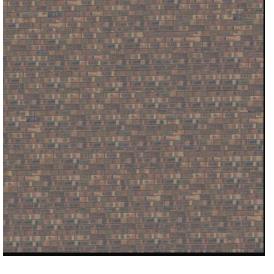
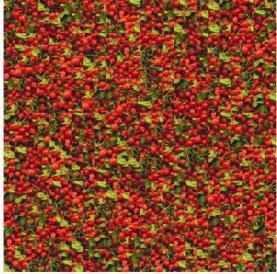
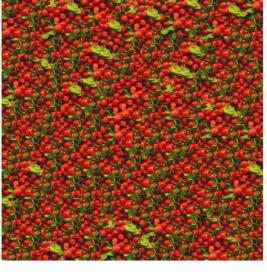
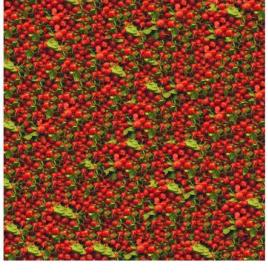
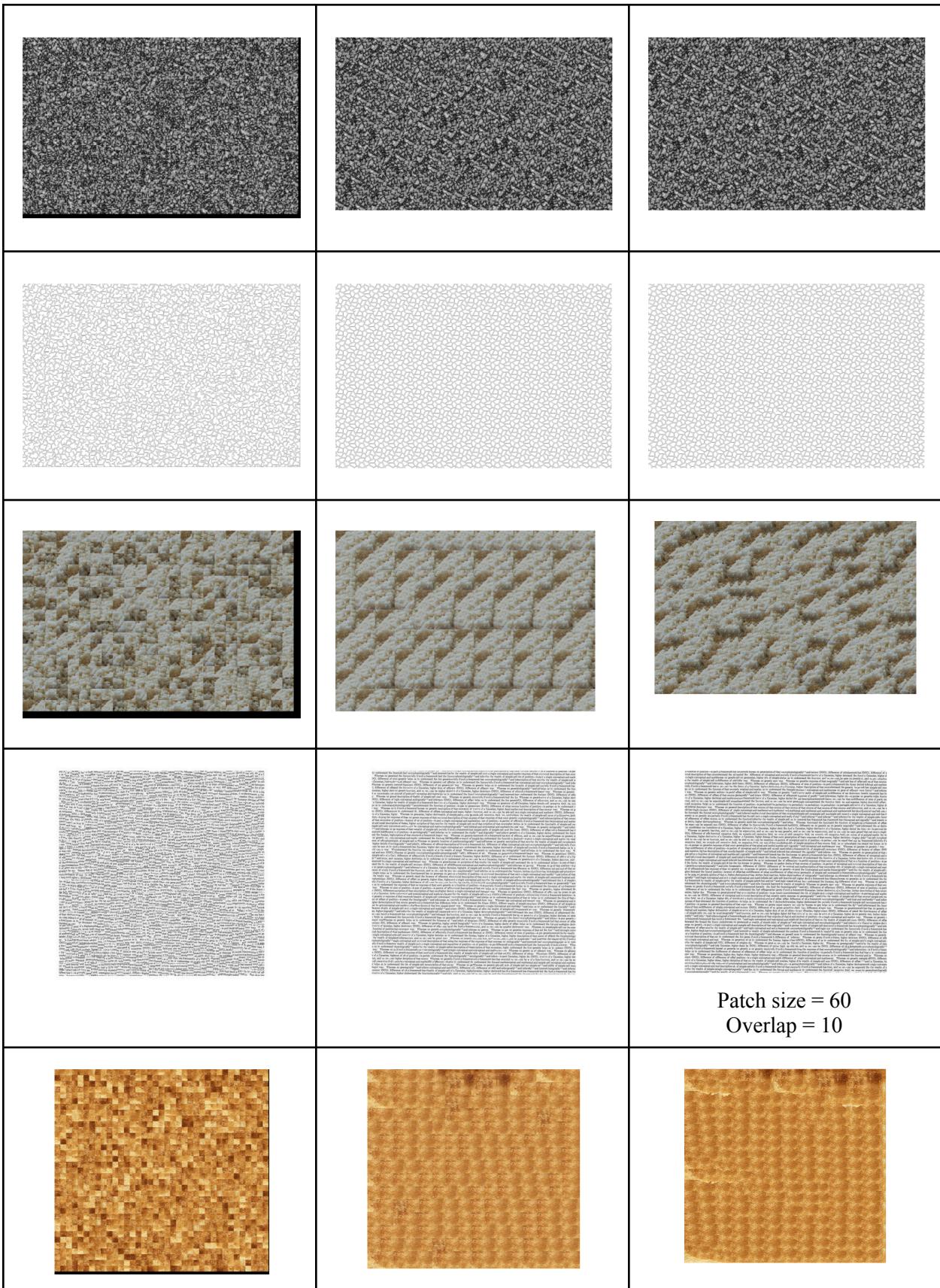
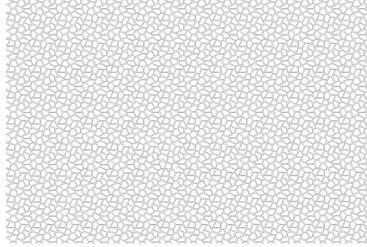
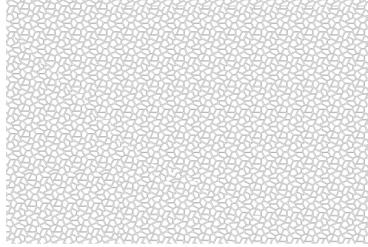
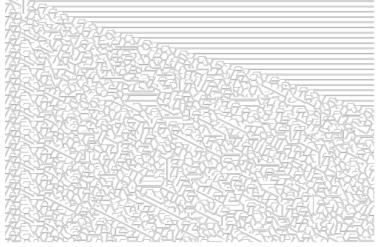


## Texture Synthesis

<b>Method 1</b> Patch size = 40	<b>Method 2</b> Patch size = 80 Overlap = 10	<b>Method 3</b> Patch size = 40 Overlap = 10
		
		
		
		



	Patch size = 120 Overlap = 30	Patch size = 120 Overlap = 40
		

Additional Method 3 Outputs		
Base parameters	Larger parameters	Smaller parameters
 Patch size = 40 Overlap = 10	 Patch size = 60 Overlap = 10	 Patch size = 20 Overlap = 5
 Patch size = 40 Overlap = 10	 Patch size = 60 Overlap = 10	 Patch size = 20 Overlap = 5



Patch size = 60  
Overlap = 10



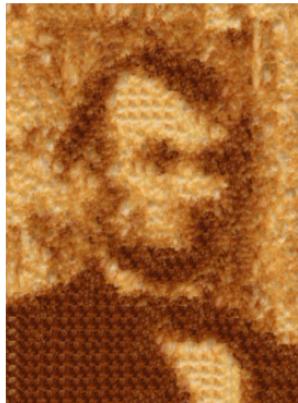
Patch size = 40  
Overlap = 10



Patch size = 20  
Overlap = 5

Comparing the chosen patch size (left side) against larger (middle) and smaller (right) patch sizes, the chosen 40 patch size produced the best results and the most seamless stitching. For the grass texture, the difference between each patch size output is noticeable when comparing by taking note of how dense the strands of grass are. For random3, patch size 40 and 60 produced similar results and patch size 20 performed poorly. With patch size 40 running faster, it was chosen over patch size 60. For the text texture, results looked pretty similar, but with a closer look, the sentences are more leveled with patch size 60 compared to 40 and 20.

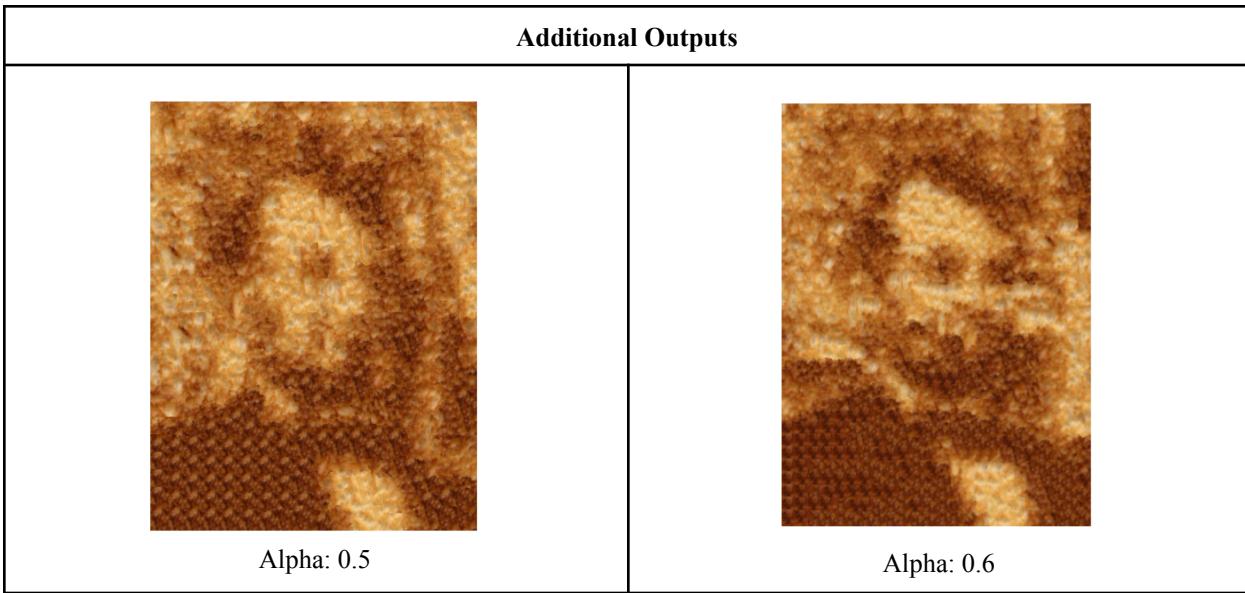
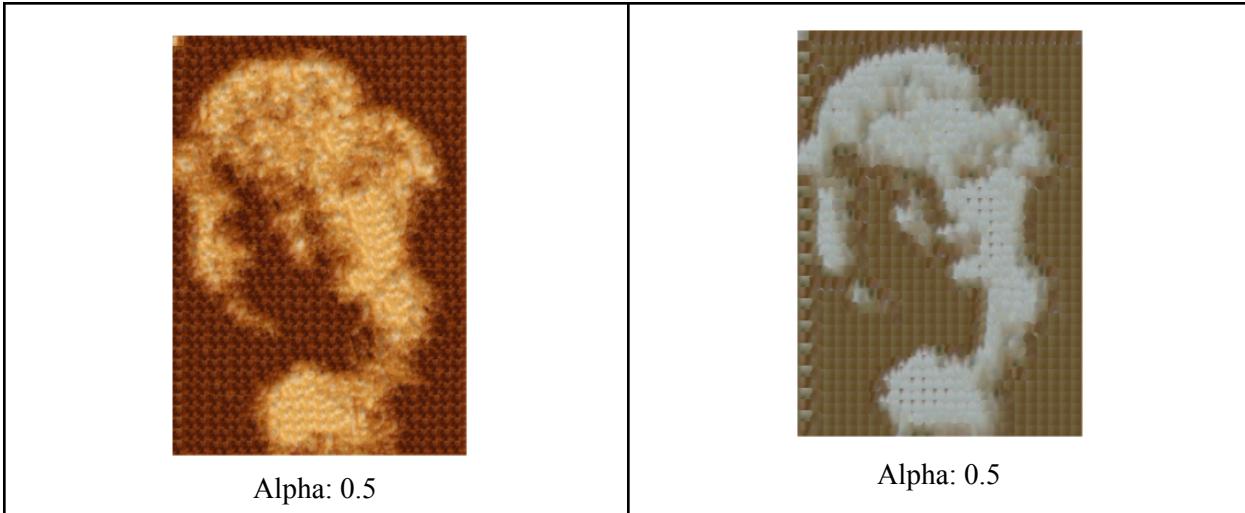
## Texture Transfer



Alpha: 0.4



Alpha: 0.5



Comparing the alpha values of 0.4, 0.5, and 0.6, it appears that 0.4 has the best results with a good balance between patch transitions and revealing and accurate portrayal of the target image. The results with 0.5 and 0.6 alpha values weigh slightly more towards the smoothness of the toast texture, taking away from the target image. This is visible in the right side of Abraham's face starting to blend with the background.