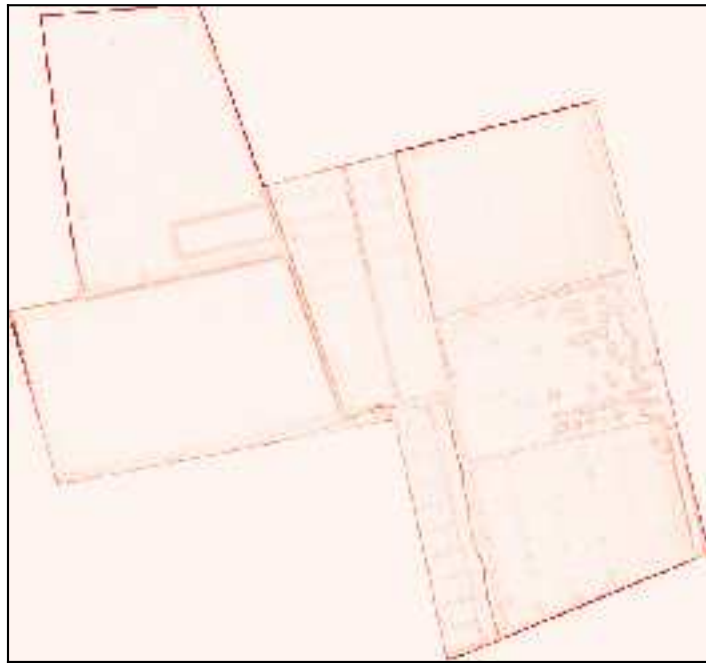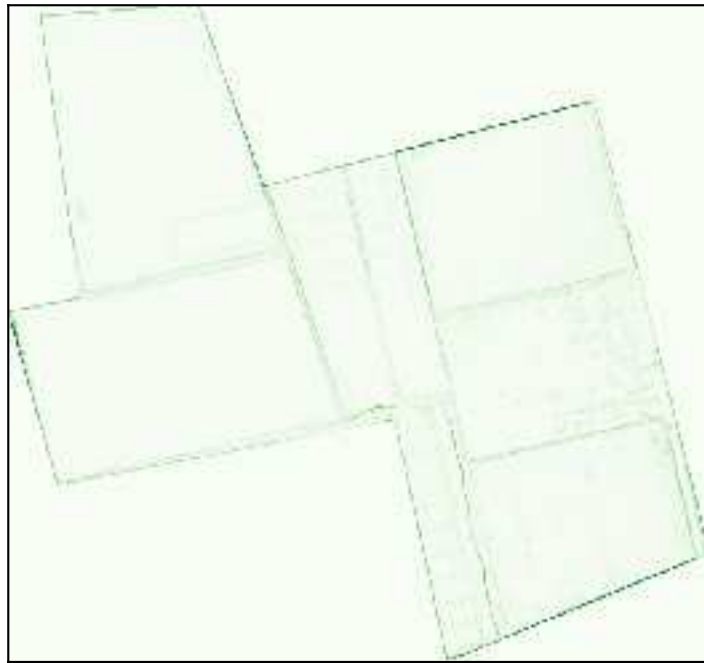Gradient magnitudes with Sobel filtering on channels