

## **10. Image representation and description**

(a). Develop a program to implement the boundary following algorithm, the resampling grid and calculate the chain code and the first difference chain code. Use the image 'noisy\_stroke.tif' for test. (For technique details, please refer to pp.818-822 (3<sup>rd</sup> edition, Gonzalez DIP) or boundaryfollowing.pdf at the same address of the slides.)

(b). Develop a program to implement the image description by the principal components (PC). Calculate and display the PC images and the reconstructed images from 2 PCs. Use the six images in 'washingtonDC.rar' as the test images.