

```

[I,map]=imread('C:\Users\Administrator\Desktop\name      of
image');

hold on;subplot(231);imshow (I,map);title('Original image');

I1 =imcomplement (I);% invert

hold on;subplot(232);imshow (I1);title('Complemented image');

I2=rgb2gray(I1);

hold on;subplot(233);imshow(I2);title('Intensity image');

hold on;subplot(234);imhist(I2);title('Resource histogram');

axis([0 120 0 15000]);

level = graythresh(I2);

imgbw = im2bw(I2,level);

hold    on;subplot(235);imshow(imgbw);title('Binarization    and
threshold segmentation');

se=strel ('disk', 1);% Expansion determines the structure of the
element

I3=imclose (imgbw,se);% form close

I4=imopen(I3,se);% form open

hold on;subplot(236);imshow(I4);title('Void profile');

I5=I3&I4;

[r,num]=bwlabel(I5,4);

L=regionprops(r, 'area');

area=cat(1,L. Area);

totalarea=sum(area);

ratio=totalarea/(709*709);

averagearea=sum(area)/num;

```