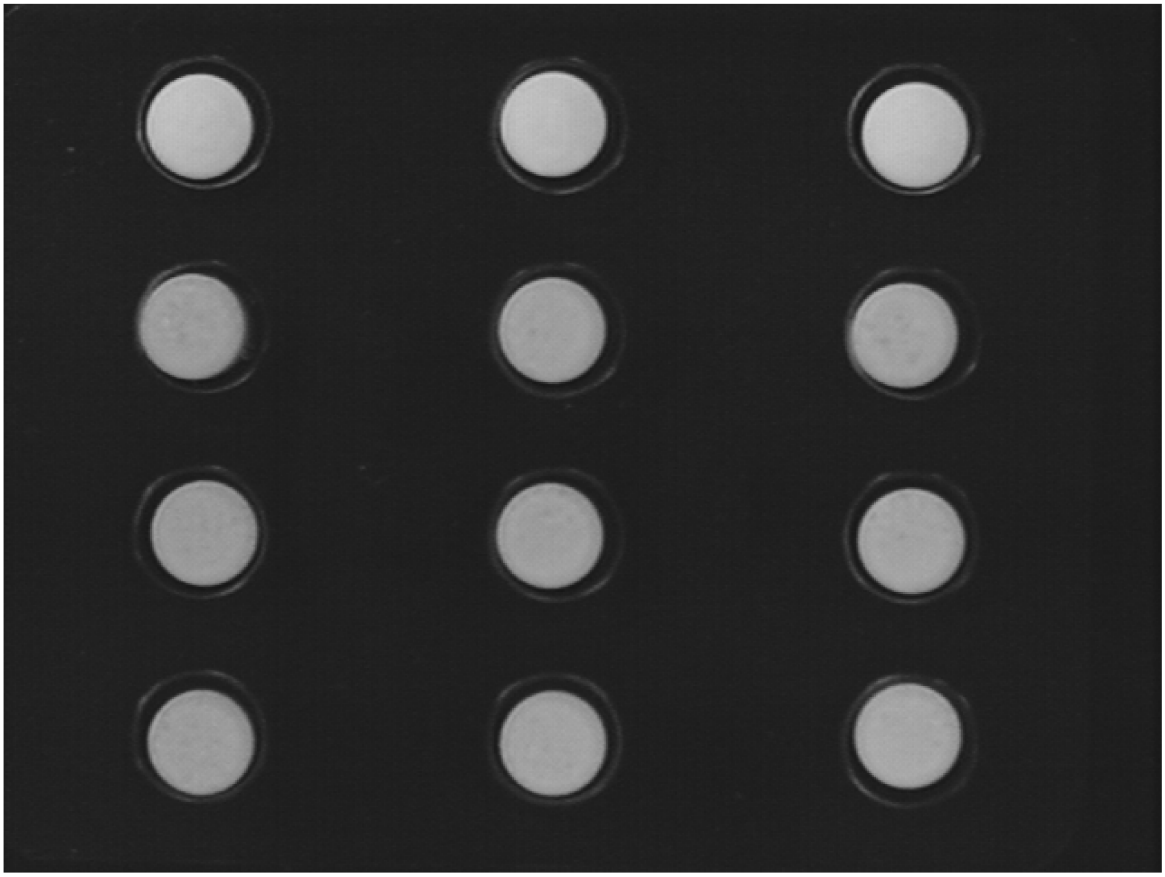
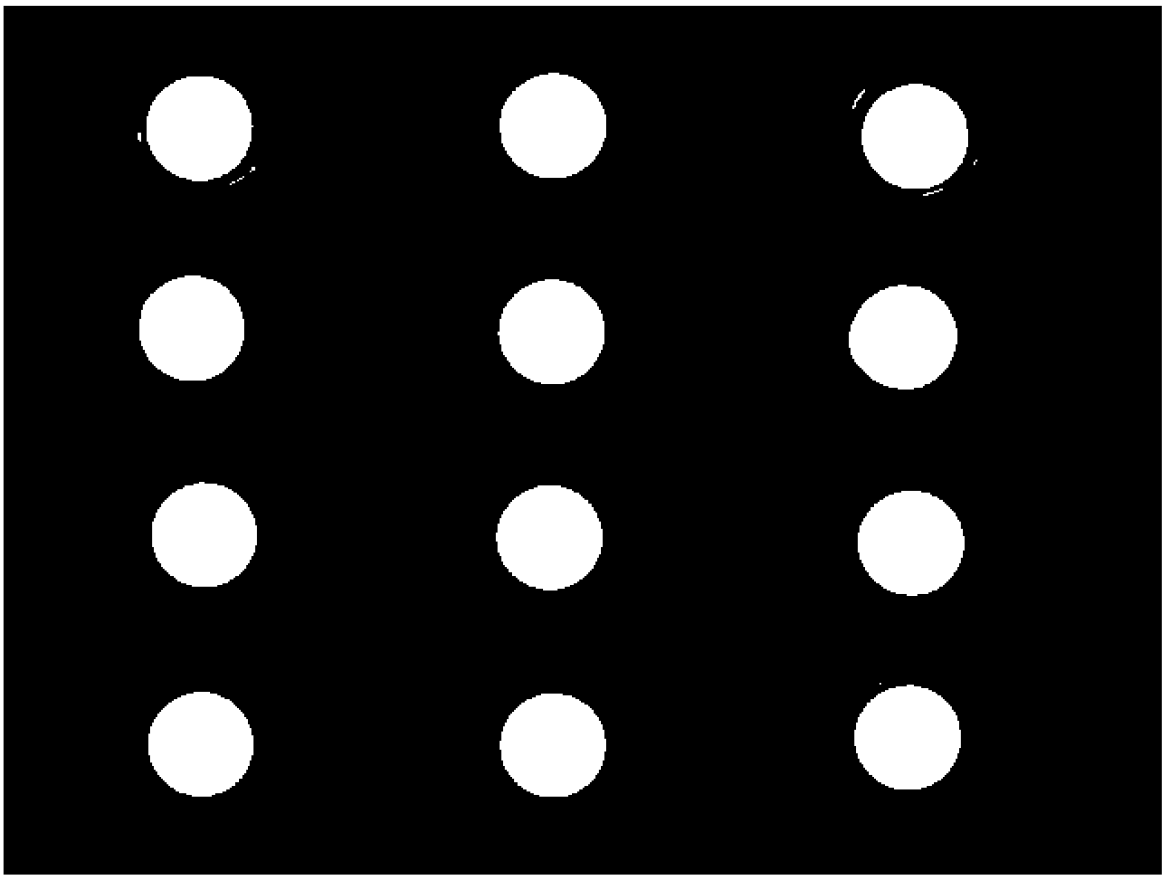
Binarització II

Labeling

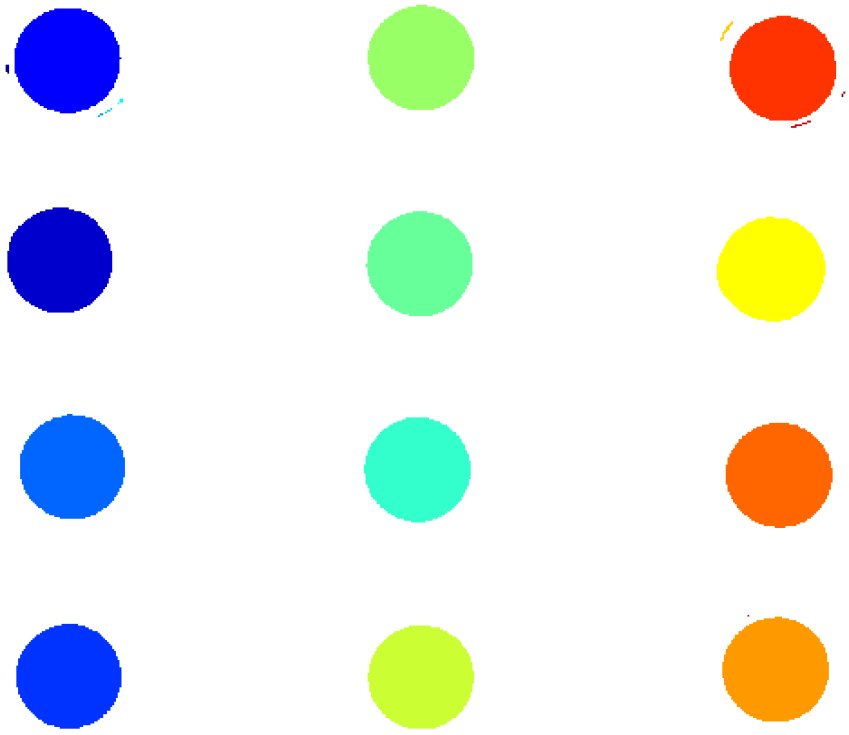
```
I = rgb2gray(imread('Blispac2.tif'));
imshow(I);
```



```
BW = imbinarize(I);
imshow(BW);
```



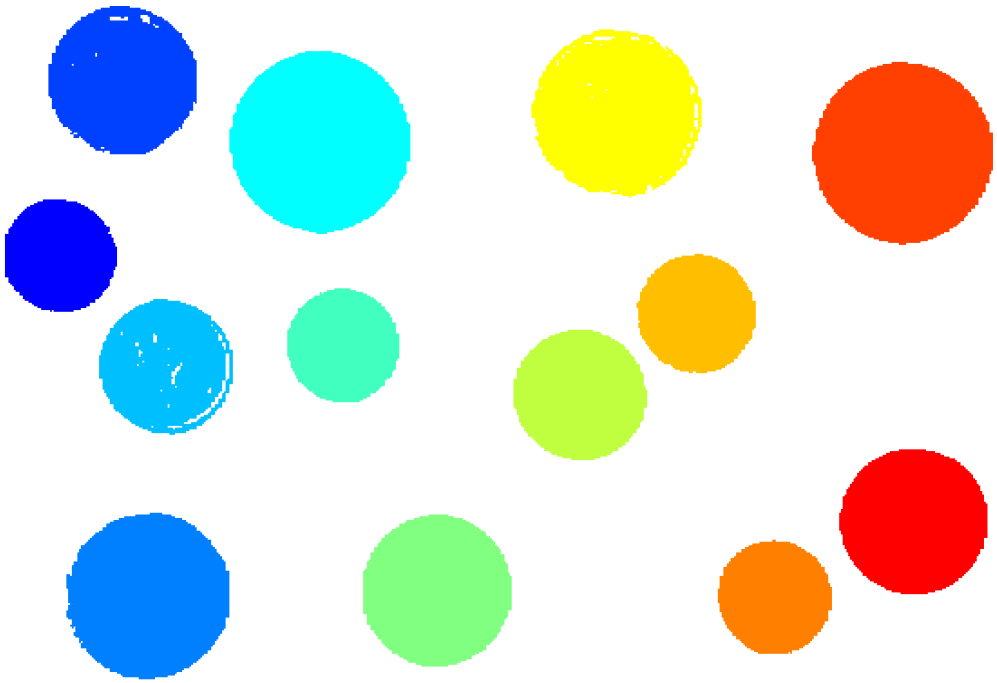
```
L = bwlabel(BW);
RGB = label2rgb(L);
imshow(RGB);
```



```
C = bwconncomp(BW)
```

```
C = struct with fields:
    Connectivity: 8
       ImageSize: [480 640]
      NumObjects: 20
    PixelIdxList: {1×20 cell}
```

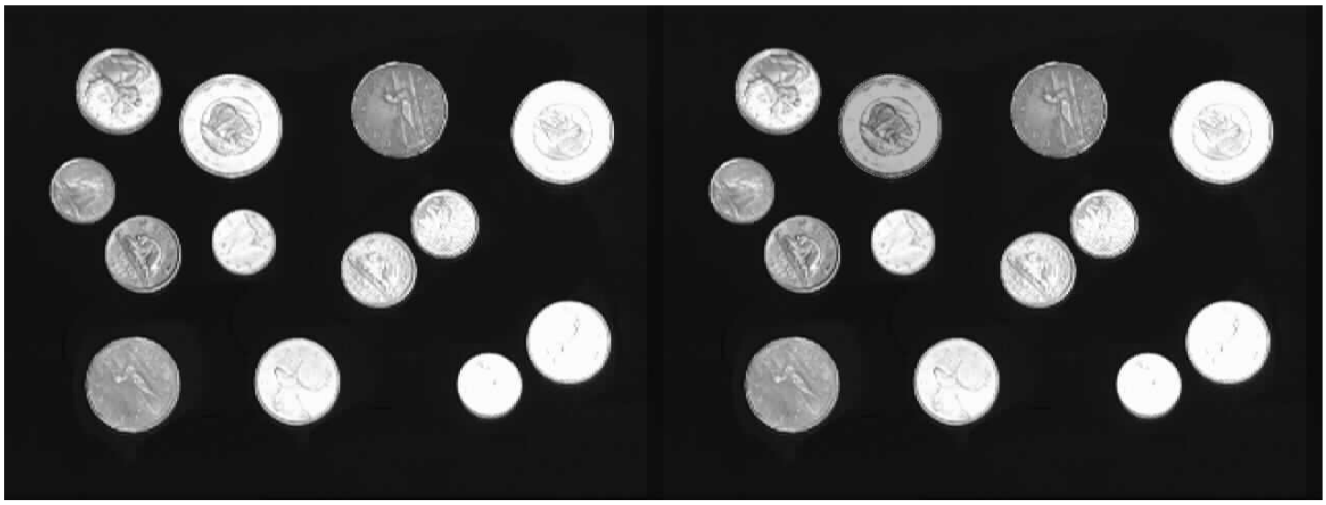
```
I = imread('money.tif');
t = graythresh(I);
BW = I > 255*t;
L = bwlabel(BW);
RGB = label2rgb(L);
imshow(RGB);
```



```
C = bwconncomp(BW)
```

```
C = struct with fields:
    Connectivity: 8
       ImageSize: [480 640]
      NumObjects: 13
    PixelIdxList: {[3070×1 double]  [5253×1 double]  [6509×1 double]  [4113×1 double]  [7800×1 double]  [3067×1 doub
```

```
CBW = BW;
IC = I;
IC(C.PixelIdxList{5}) = IC(C.PixelIdxList{5})-64;
montage({I,IC});
```



Cerca de la moneda amb més petita (menys píxels)

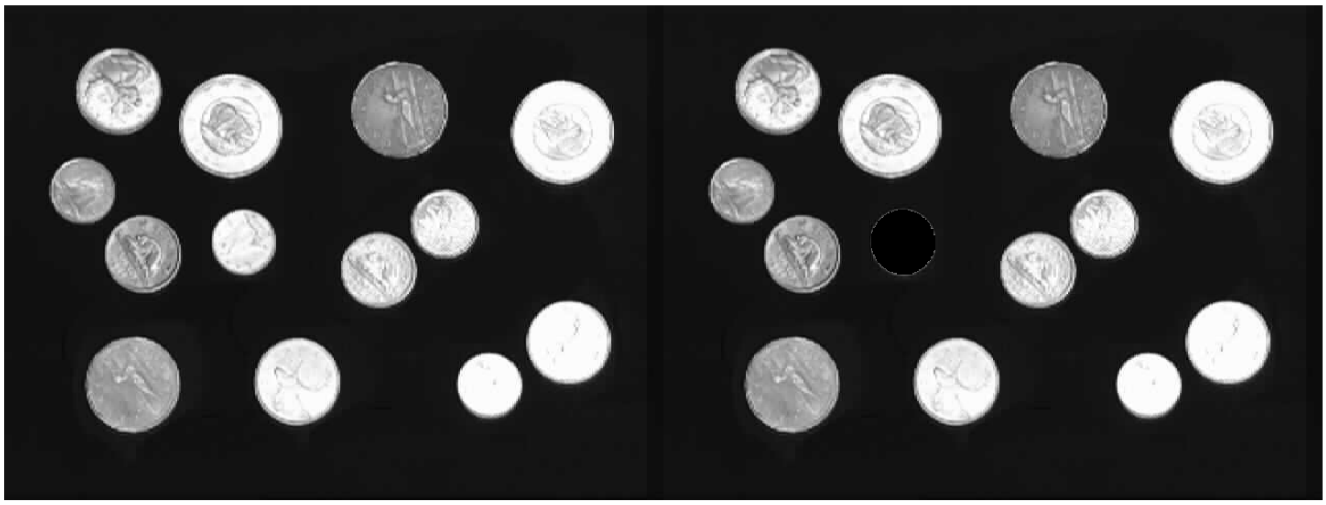
```
I = imread('money.tif');
t = graythresh(I);
BW = I > 255*t;
C = bwconncomp(BW)
```

```
C = struct with fields:
    Connectivity: 8
       ImageSize: [480 640]
      NumObjects: 13
    PixelIdxList: {[3070×1 double]  [5253×1 double]  [6509×1 double]  [4113×1 double]  [7800×1 double]  [3067×1 doul
```

```
n_pixels = cellfun(@numel,C.PixelIdxList);
[npix, pos] = min(n_pixels);
pos
```

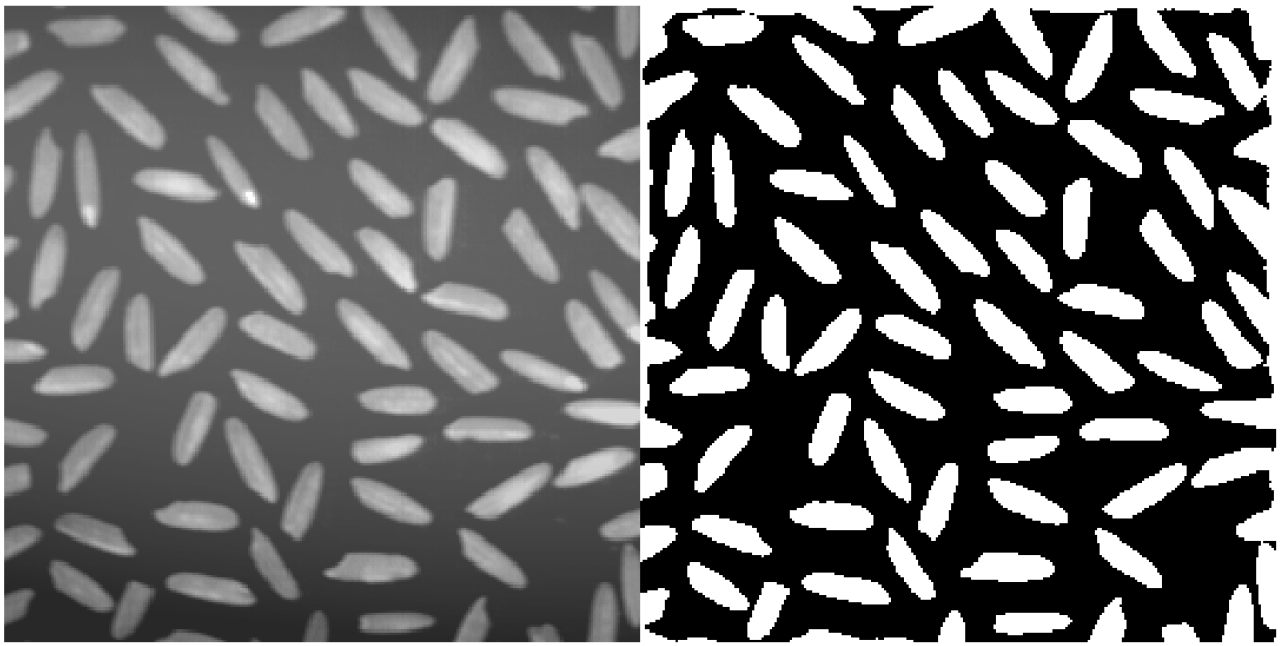
```
pos = 6
```

```
IC = I;
IC(C.PixelIdxList{pos}) = 0;
montage({I,IC});
```



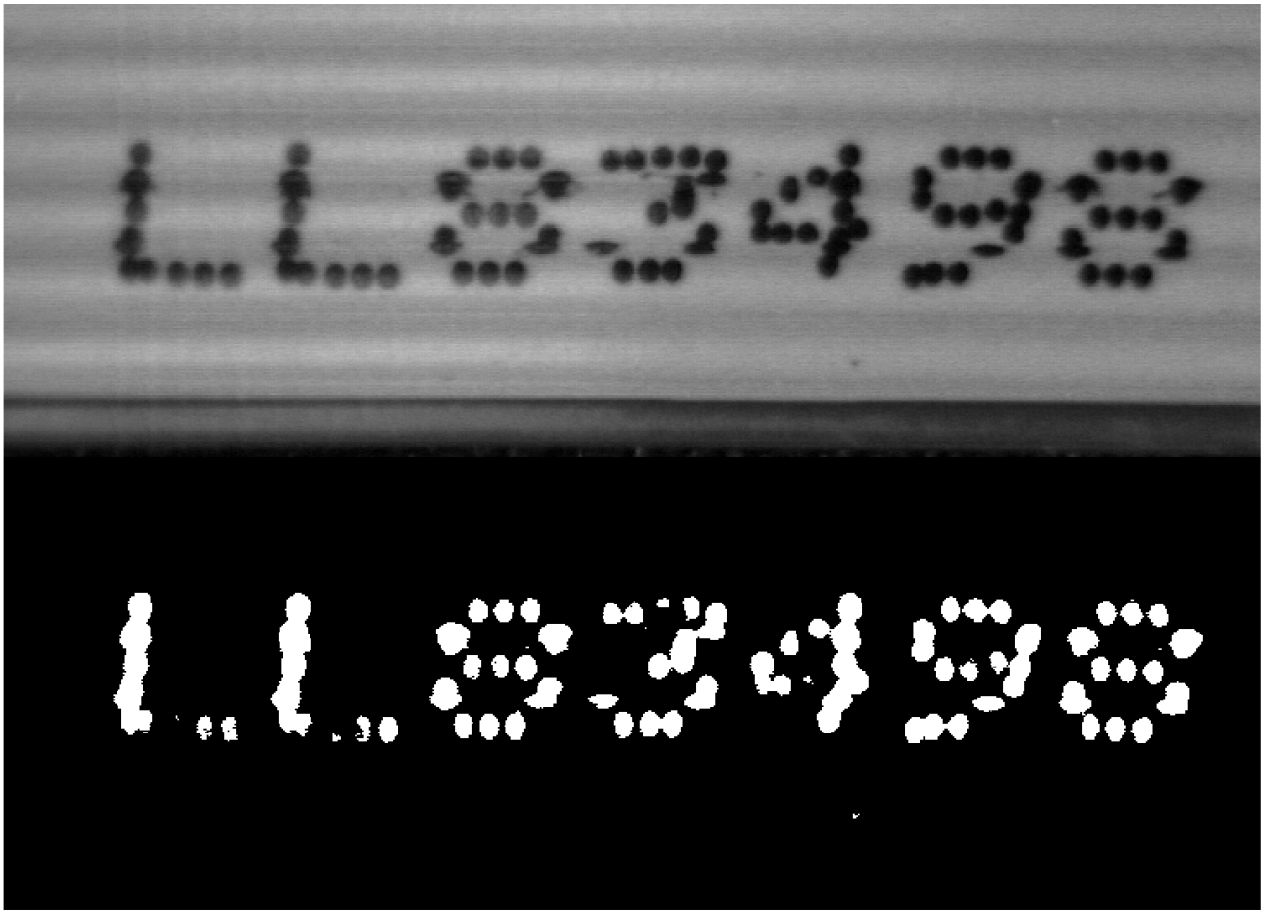
Binarització Local

```
I = imread('arros.tif');
window = [30 30];
M = colfilt(I,window,"sliding",@mean);
BW = I > (M + 16);
montage({I,BW});
```



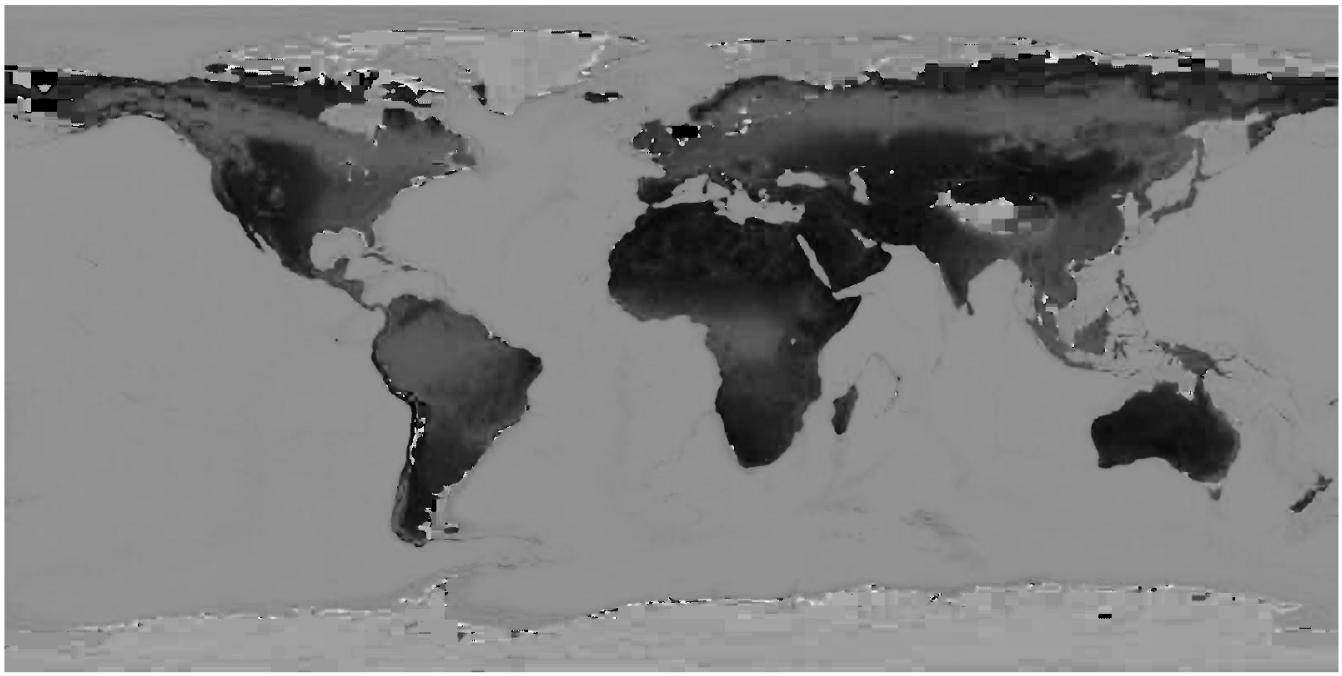
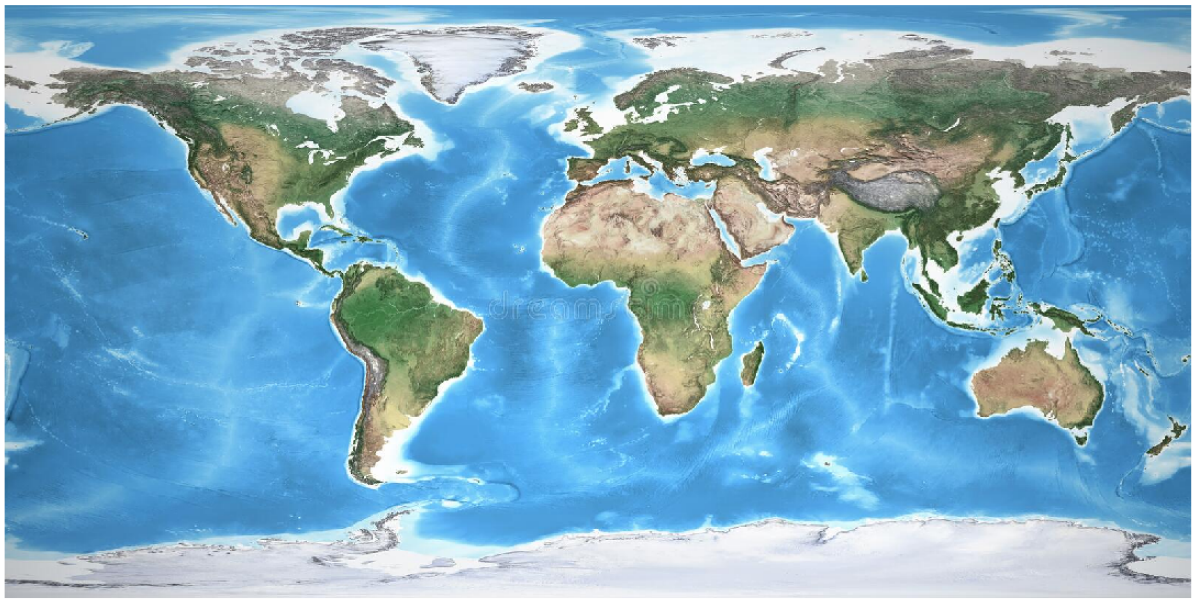
```
I = imread('FlatCable1.tif');
window = [1 75];
```

```
M = colfilt(I,window,"sliding",@mean);
BW = I < (M-25);
montage({I,BW});
```



Exercici

```
I = imread('mon.jpg');
HSV = rgb2hsv(I);
H = HSV(:,:,1);
imshow(H);
```



```
t = graythresh(H);
BW = H > t;
montage({I, BW});
```