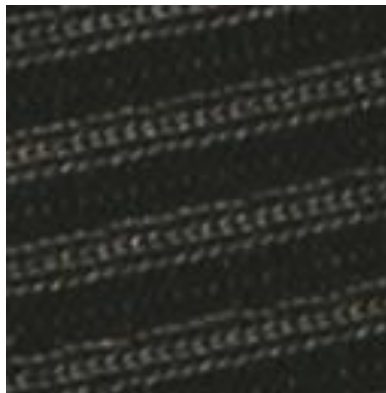# Test of 5 different methods of features extraction for CBIR

BiT – biodiversity – taxonomy – BiT+Haralick – BiT+GLCM

Images used : OUTEX

Query Image

Class: 7

Outputs:

BiT / BiT+GLCM / BiT + Haralick

001236.bmp class 7	001225.bmp class 7	001205.bmp class 7	002683.bmp class 15	003156.bmp class 18

002640.bmp class 15	002316.bmp class 13	002612.bmp class 15	002642.bmp class 15	002276.bmp class 13

The 3 methods output the same result : only <mark>3 images</mark> from the same class.
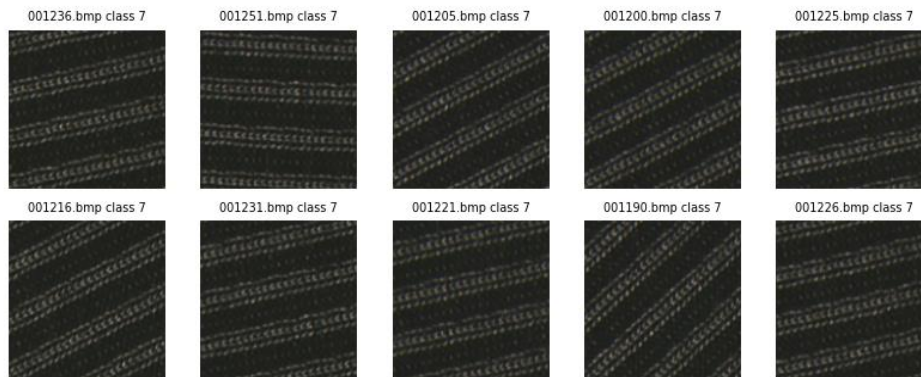
Biodiversity:

001236.bmp class 7	001251.bmp class 7	001205.bmp class 7	001200.bmp class 7	001225.bmp class 7

001216.bmp class 7	001231.bmp class 7	001221.bmp class 7	001190.bmp class 7	001226.bmp class 7

Biodiversity outputs <mark>10 images</mark> from the same class.

Taxonomy
Taxonomy outputs only <mark>1 image</mark> from the same class.

Query Image:

Class: 14

Outputs:

BiT / BiT+GLCM / BiT + Haralick
The 3 methods output the same result : 7 images from the same class.

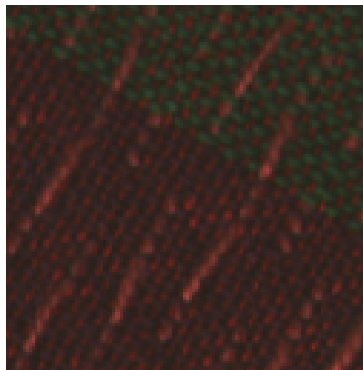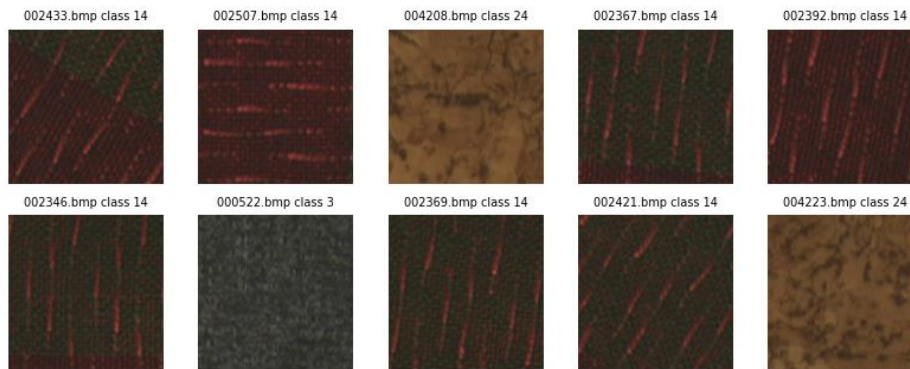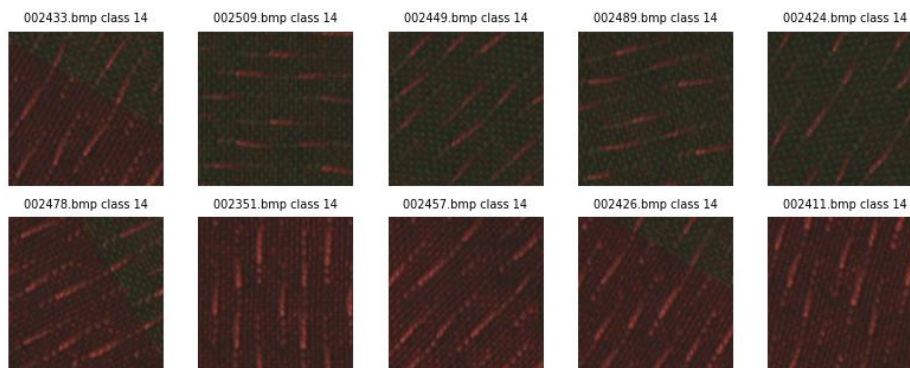| Biodiversity: |
|---|
| |
| **Biodiversity outputs 10 images from the same class.** |

Taxonomy
002433.bmp class 14   003430.bmp class 20   003399.bmp class 19   004208.bmp class 24   003307.bmp class 19   003411.bmp class 19   003314.bmp class 19   003483.bmp class 20   000849.bmp class 5   004166.bmp class 24
Taxonomy outputs only <mark>1 image</mark> from the same class.

Third Test:

Query Image:

Class: 24

Outputs:

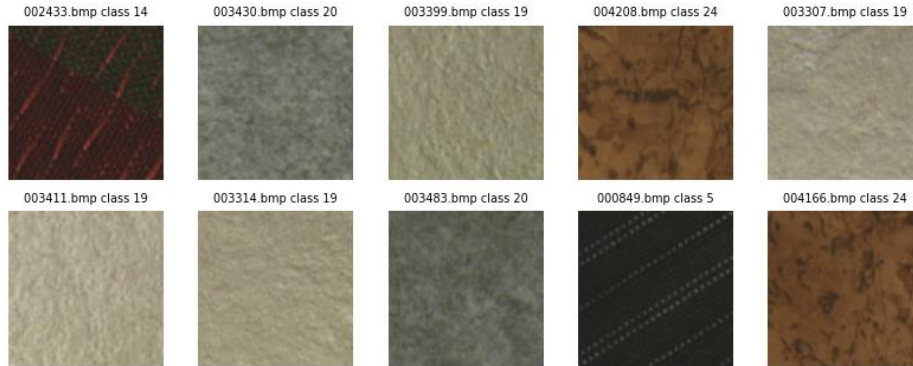| BiT / BiT+GLCM / BiT + Haralick |
|---|
| |
| The 3 methods output the same result: <mark>1 image</mark> from the same class. |

Biodiversity:
Biodiversity outputs <mark>8 images</mark> from the same class.

Taxonomy
Taxonomy outputs only <mark>1 image</mark> from the same class.

So, the biodiversity method gave the best results in the three tests, while taxonomy returned one image only from the same class as the query image!

BiT, BiT+Haralick, and BiT+GLCM gave better results than taxonomy but not as accurate as biodiversity.