methodTestWithHistogram

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In [ ]:
```
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```

In [1]:
```
from skimage import data, io, filters, exposure
```

In [2]:
```
import matplotlib.pyplot as plt
```

In [3]:
```
import pandas as pd
import numpy as np
```

In [4]:
```
from skimage.color import rgb2gray
```

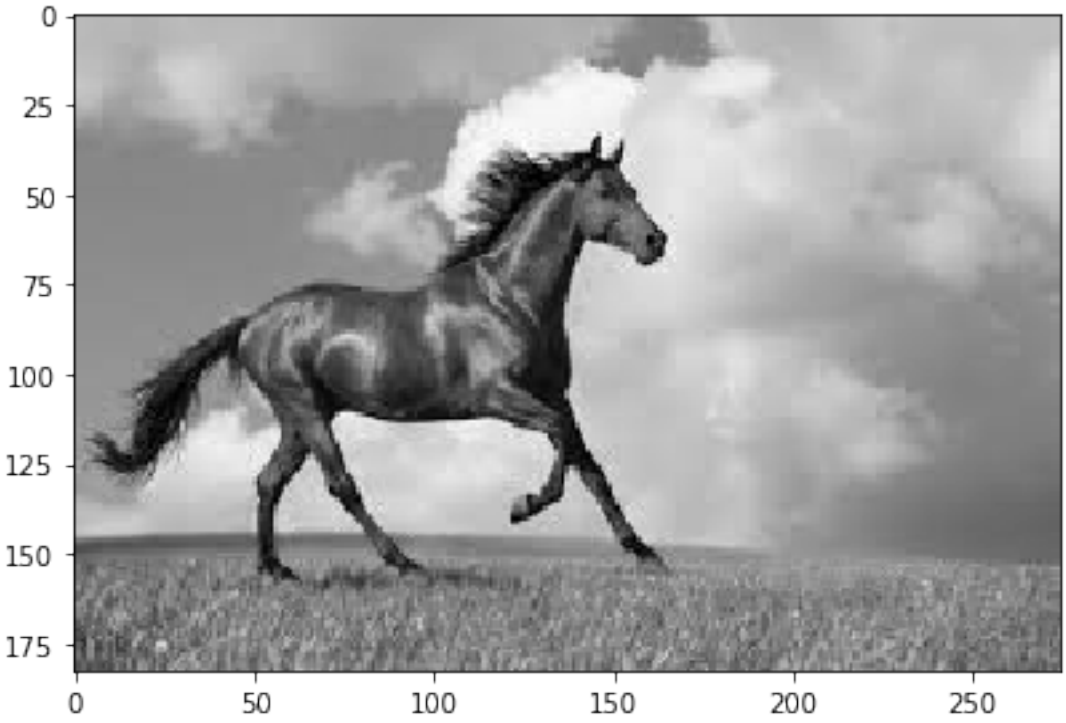
In [5]:
```
horse2=io.imread('download (1).jpeg')
```

In [6]:
```
horse=io.imread('download (2).jpeg')
```

In [7]:
```
horse=rgb2gray(horse)
io.imshow(horse)
```

```
/home/sa/anaconda3/lib/python3.6/site-packages/skimage/io/_plugins/matplotlib_plugin.py:51: Fu
  out_of_range_float = (np.issubdtype(image.dtype, np.float) and
/home/sa/anaconda3/lib/python3.6/site-packages/matplotlib/axes/_base.py:1400: MatplotlibDeprec
  " since 2.2.", cbook.mplDeprecation)
```

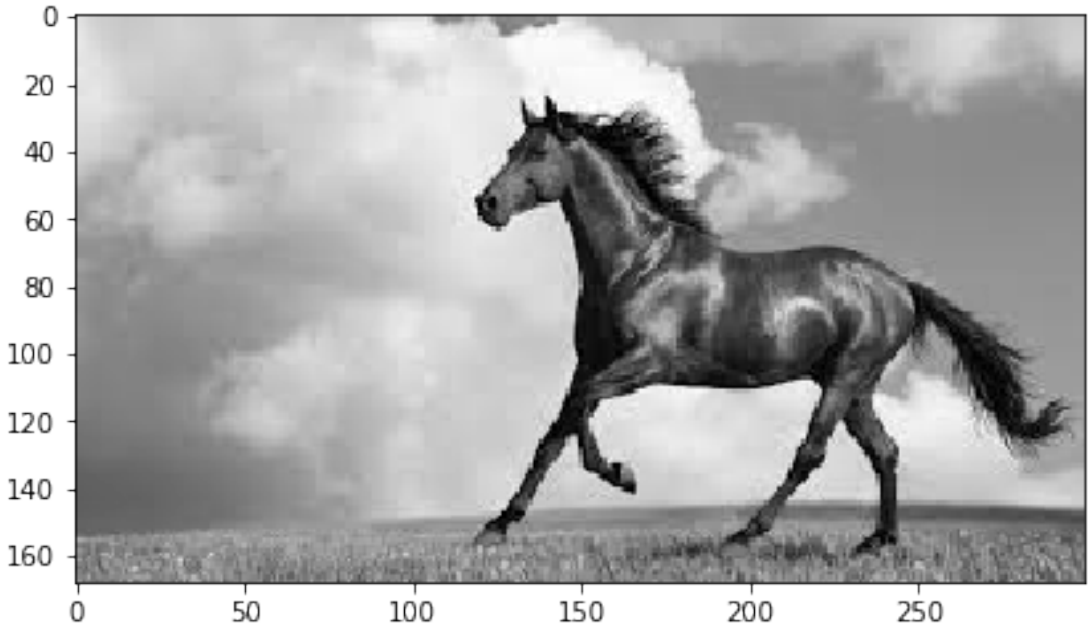
Out[7]:
```
<matplotlib.image.AxesImage at 0x7f517e3d2128>
```



In [8]:
```
horse2=rgb2gray(horse2)
io.imshow(horse2)
```

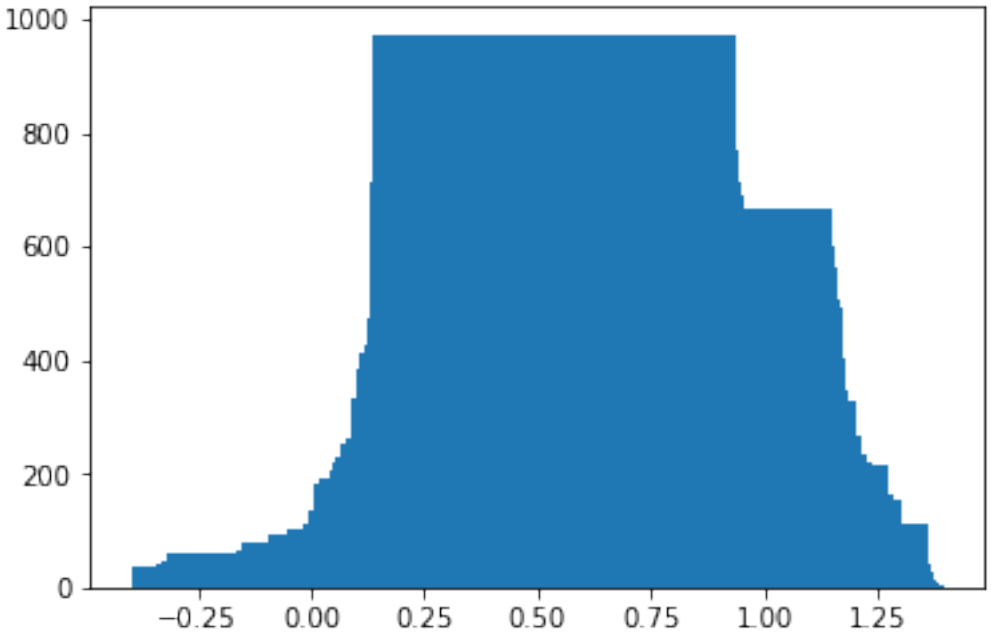
```
/home/sa/anaconda3/lib/python3.6/site-packages/skimage/io/_plugins/matplotlib_plugin.py:51: Fu
  out_of_range_float = (np.issubdtype(image.dtype, np.float) and
/home/sa/anaconda3/lib/python3.6/site-packages/matplotlib/axes/_base.py:1400: MatplotlibDeprec
  " since 2.2.", cbook.mplDeprecation)
```

Out[8]: <matplotlib.image.AxesImage at 0x7f517cac5358>



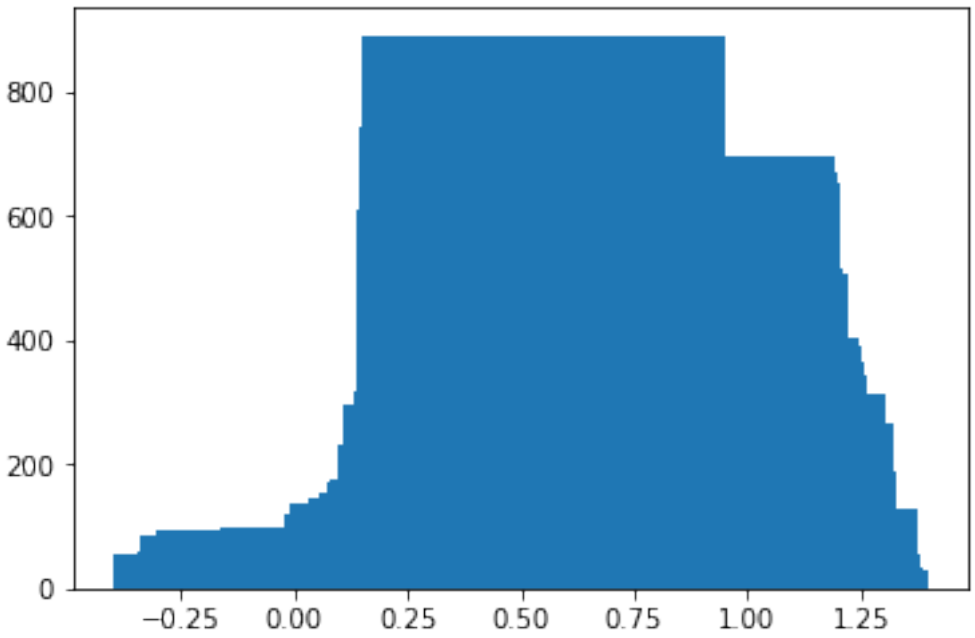
In [9]:
```
image=horse
edges = filters.sobel(image)
plt.bar( exposure.histogram(image)[1], exposure.histogram(image)[0])
```

Out[9]: <BarContainer object of 256 artists>



In [10]:
```
image2 = horse2
edges = filters.sobel(image2)
plt.bar( exposure.histogram(image2)[1], exposure.histogram(image2)[0])
```

Out[10]: <BarContainer object of 256 artists>



In [11]:
```
#classification
soma=0
for i in range(len(exposure.histogram(image2)[0])):
    soma+=min(exposure.histogram(image2)[0][i], exposure.histogram(image)[0][i])
soma2=0
for i in range(len(exposure.histogram(image)[0])):
    soma2+=exposure.histogram(image)[0][i]
soma/soma2
```

Out[11]: 0.789865871833085