this is the original picture as the input for *ColorImage.cpp*
all those pictures are showed by grey state.

**Red**

**Green**

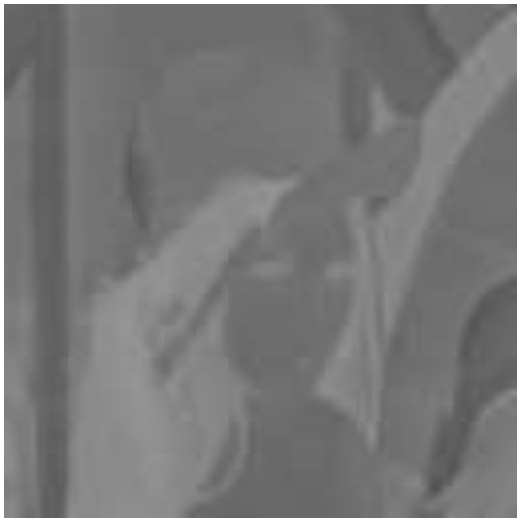
**Blue**

the original picture is abstracted to individual values for Red,Green,Blue seperately.

It is obvious that the Red part of original picture comes brighter in ‘Red’ channel.So do the others.

**Y**

**Cb**

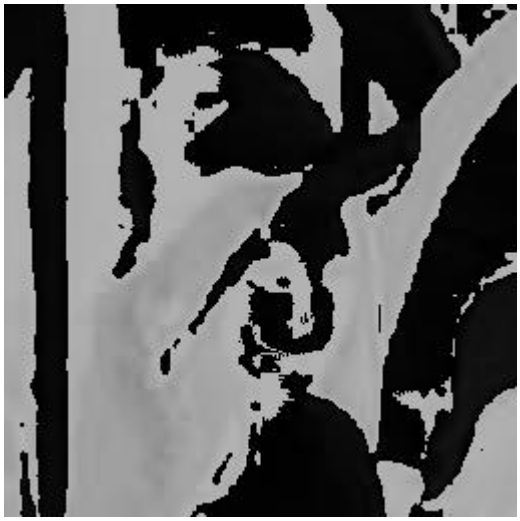


**Cr**

Y stands for the brightness,you can see the different level of brightness in the picture.

Cb stands for the difference between Y and Blue channel.

Cr stands for the difference between Y and Red channel.



**Hue**

**Saturation**

**Value**

HSV color space belongs to a color oriented coordinate system. This color model is close to the simulation model of human's perception towards color.

Hue: Type of the corresponding color, color from red, green, blue, with yellow, purple and black to red.

Saturation: The hue varies from none saturation (gray gradient) to full saturation (no white color).

Value: The color range from dark to bright.