# Using Images as a Source of Colors

```
// draw image - leave a border
image(img, 50, 50, width-100, height-100);

// draw colored spot following the mouse - color is taken from the image pixel
//  under the mouse
// only draw the spot if the mouse is over the image
if (mouseX <= width-50 && mouseX >= 50 && mouseY <= height-100 && mouseY >= 100) {
  // (row,col) corresponding to the mouse's location in the image
  //   row = (y-iy)*img.height/dh, col = (x-ix)*img.width/dw
  int row = (mouseY-50)*img.height/(height-100);
  int col = (mouseX-50)*img.width/(width-100);
  // location in pixels array corresponding to (row,col)
  int loc = row*img.width+col;

  fill(img.pixels[loc]);
  stroke(0);
  ellipse(mouseX, mouseY, 40, 40);
}
```

computing and accessing the pixel in the image is only valid if (x,y) is over the image

```
// (row,col) corresponding to the mouse's location in the image
//   row = (y-iy)*img.height/dh, col = (x-ix)*img.width/dw
```

(ix,iy) and (dw,dh) are the upper left corner and the size of the area covered by the image