Assignment 3

# Results from Running Code from Textbook

Chooses square stencil and calculates mean intensity values for each color channel over the stencil for each pixel.

# Results when using Weighted Averages

## Comparison of Stencil Size and Time Taken in Seconds

|  |  |  |
| --- | --- | --- |
| **Stencil Size** | **Time Taken (in seconds)** | **Blurred Image** |
| 3 x 3 | 406.5706181526184 | A picture containing outdoor, place of worship, stupa  Description automatically generated |
| 5 x 5 | 449.3391592502594 | A picture containing outdoor, place of worship, stupa  Description automatically generated |
| 7 x 7 | 424.27632999420166 | A picture containing place of worship  Description automatically generated |
| 10 x 10 | 489.8978662490845 |  |
| 25 x 25 | 1347.3082633018494 |  |
| 50 x 50 | 5652.602586746216 | A picture containing outdoor, place of worship  Description automatically generated |
| 100 x 100 |  |  |

As you can observe, it takes more time for bigger stencils, however the quality of the image produced is much better.