

Before there were images



Prehistoric Painting, Lascaux Cave, France
~ 13,000 -- 15,000 B.C. (Aurochs, dun horses, deer.)

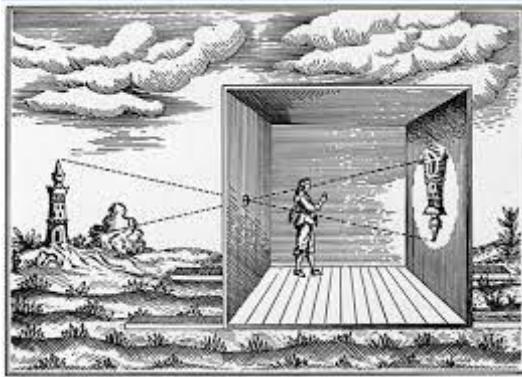
Before there were images

Depicting Our World: Middle Ages

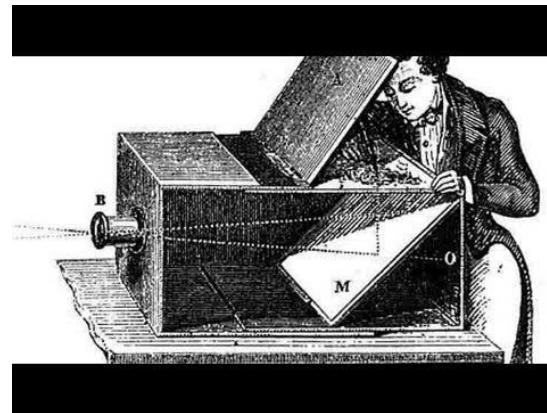


**The Empress Theodora with her court.
Ravenna, St. Vitale 6th c.**

Before there were images



Camera Obscura



Girl with a pearl earring, J. Vermeer, 1665



And then there were images

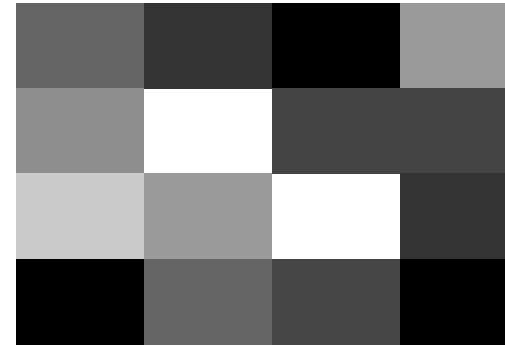


Still Life, Louis Jaques Mande Daguerre, 1837

What is a **digital** image ?

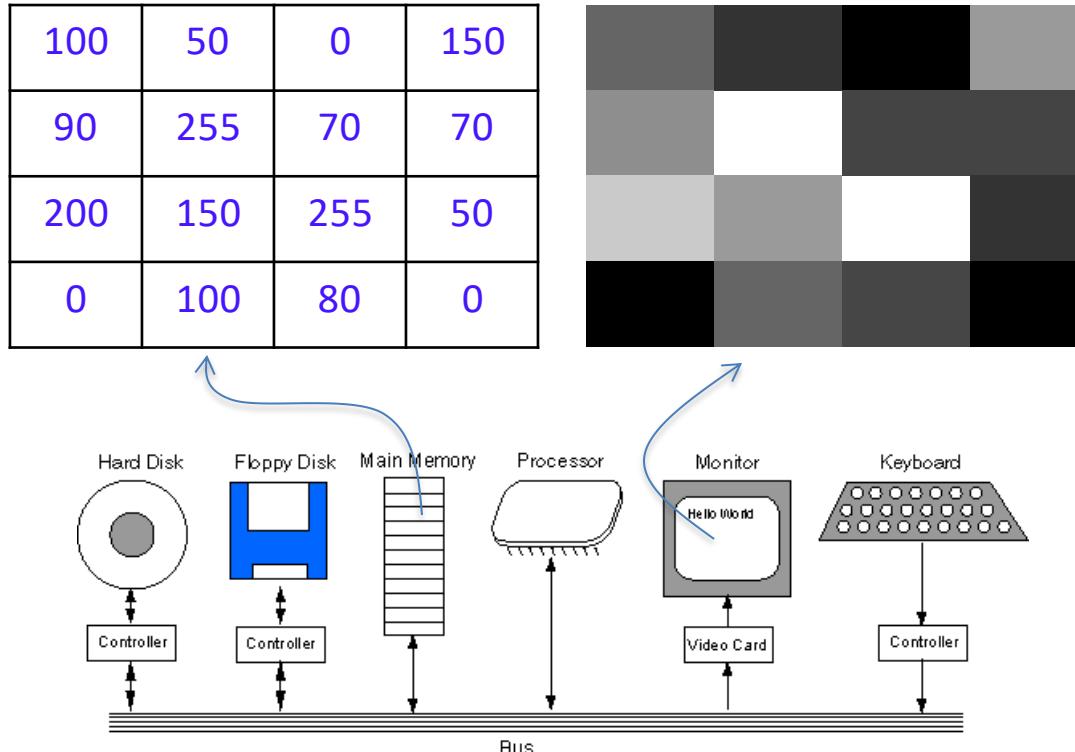
- An **array** of numbers representing **color intensities**

100	50	0	150
90	255	70	70
200	150	255	50
0	100	80	0



What is a **digital** image ?

- An **array** of numbers representing **color intensities**



What is a **digital** image ?

- An **array** of numbers representing **color intensities**

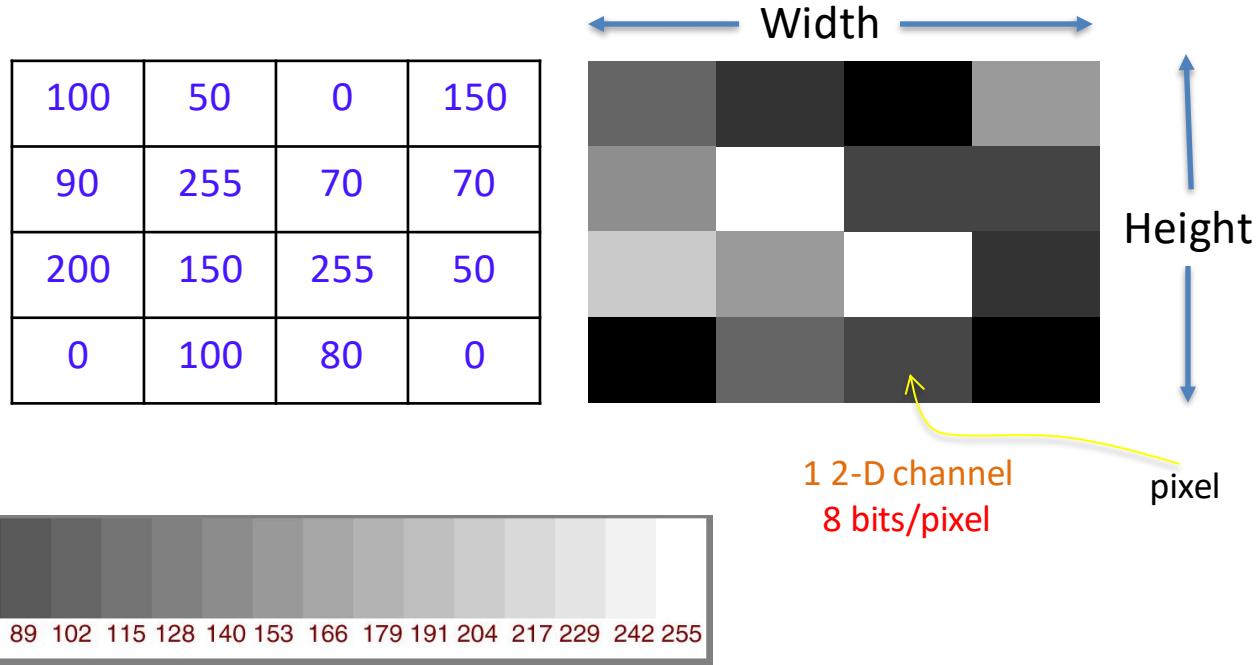
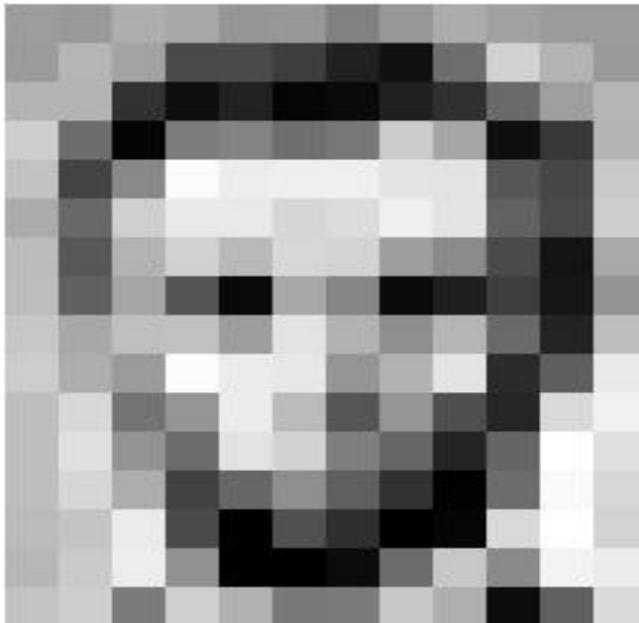
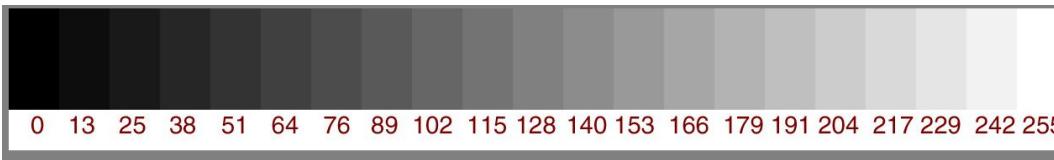


Image Representation (Grayscale)

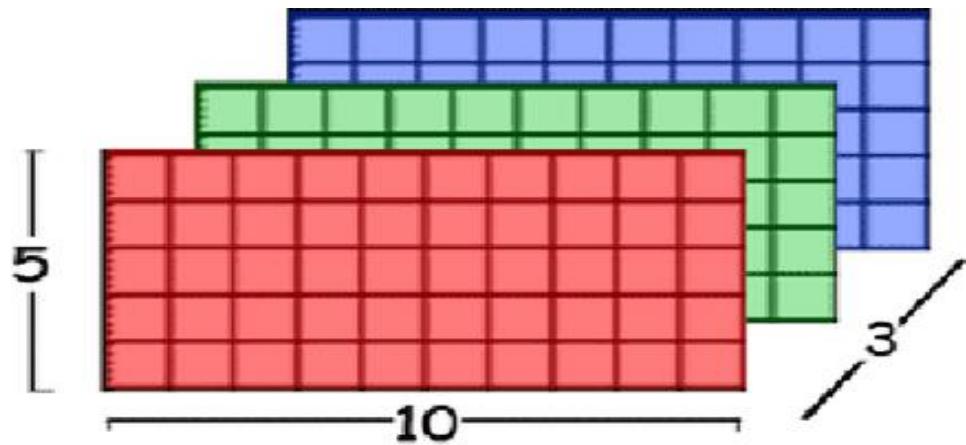
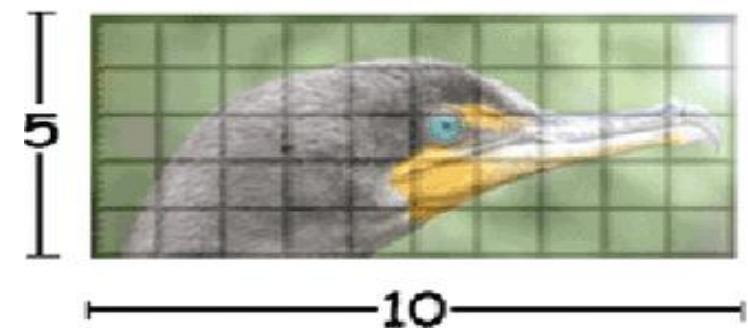


157	153	174	168	160	152	129	151	172	161	165	156
156	182	163	74	75	62	33	17	110	210	180	154
180	180	50	14	94	6	10	33	48	106	159	181
206	109	5	124	131	111	120	204	165	15	56	180
194	68	137	251	237	239	239	228	227	87	71	201
172	106	207	233	233	214	220	239	228	98	74	206
188	88	179	209	186	215	211	158	139	75	20	169
189	97	165	84	10	168	134	11	31	62	22	148
199	168	191	193	158	227	178	143	182	105	36	190
205	174	156	252	236	231	149	178	228	43	95	234
190	216	116	149	236	187	85	150	79	38	218	241
190	224	147	108	227	210	127	102	36	101	255	224
190	214	173	65	103	143	95	50	2	109	249	215
187	196	238	75	1	81	47	0	6	217	255	211
183	202	237	145	0	0	12	108	200	138	243	236
195	206	123	207	177	121	123	200	175	13	96	218



0 13 25 38 51 64 76 89 102 115 128 140 153 166 179 191 204 217 229 242 255

Image Representation (RGB)



3 2-D channels
24 bits per pixel