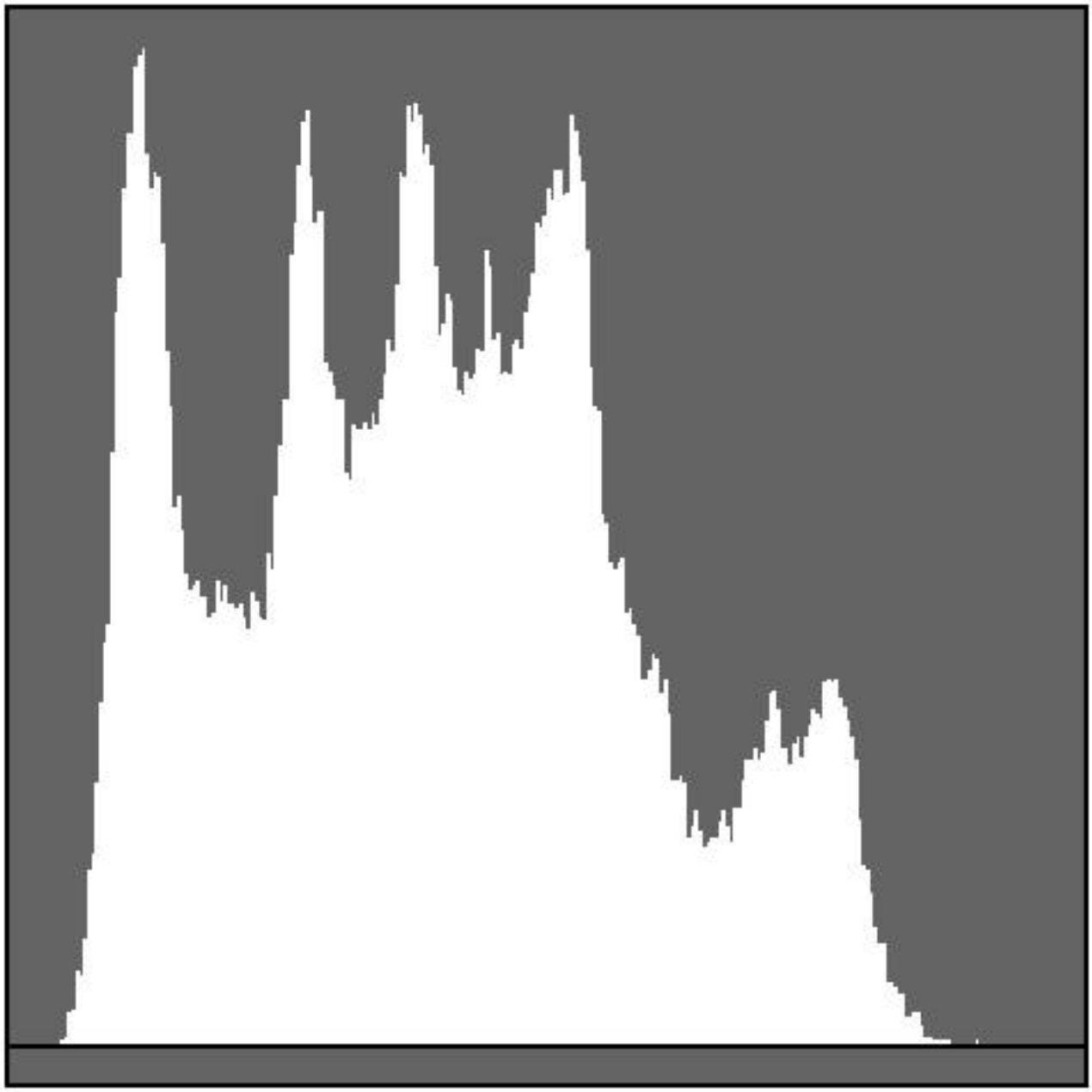
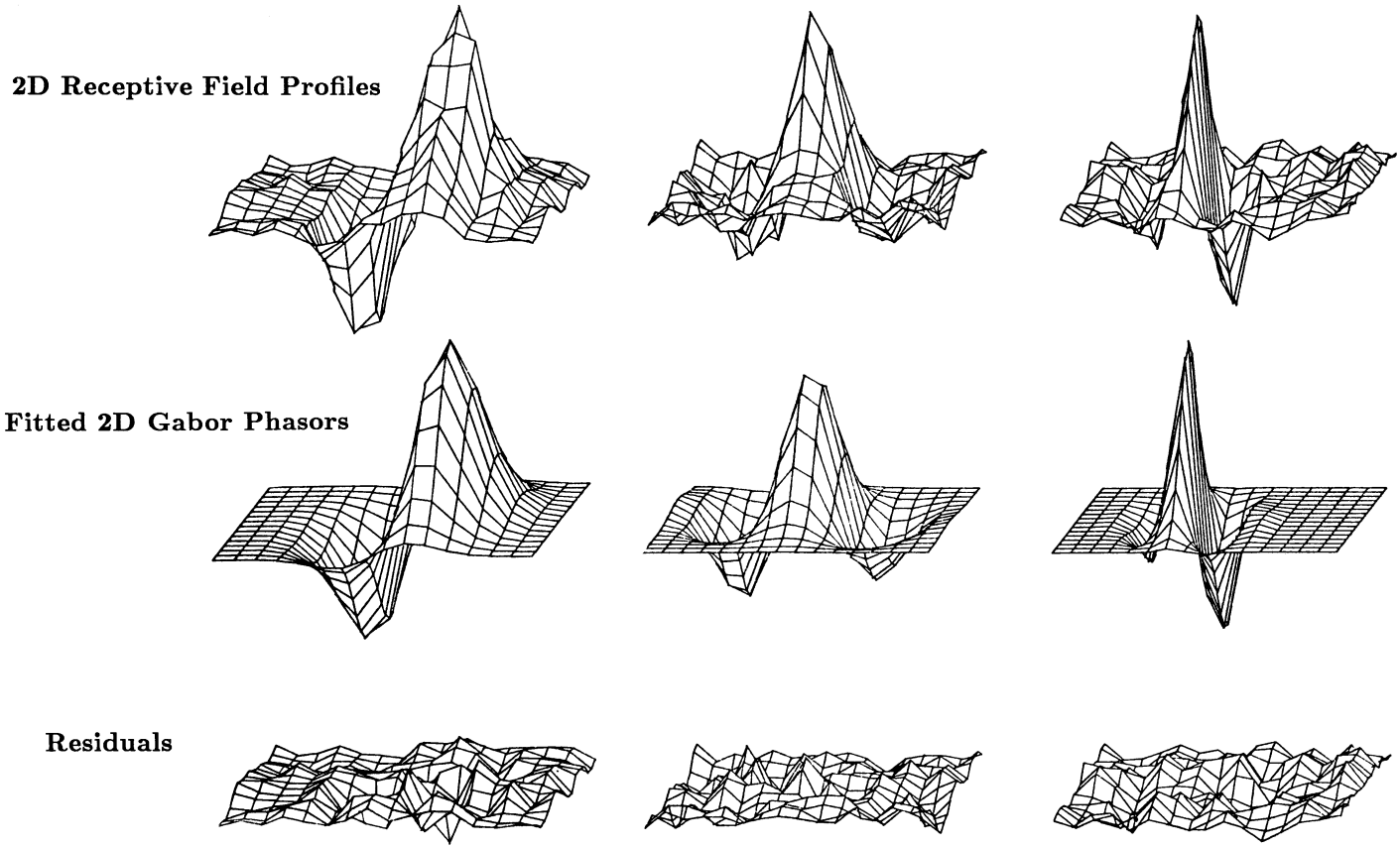
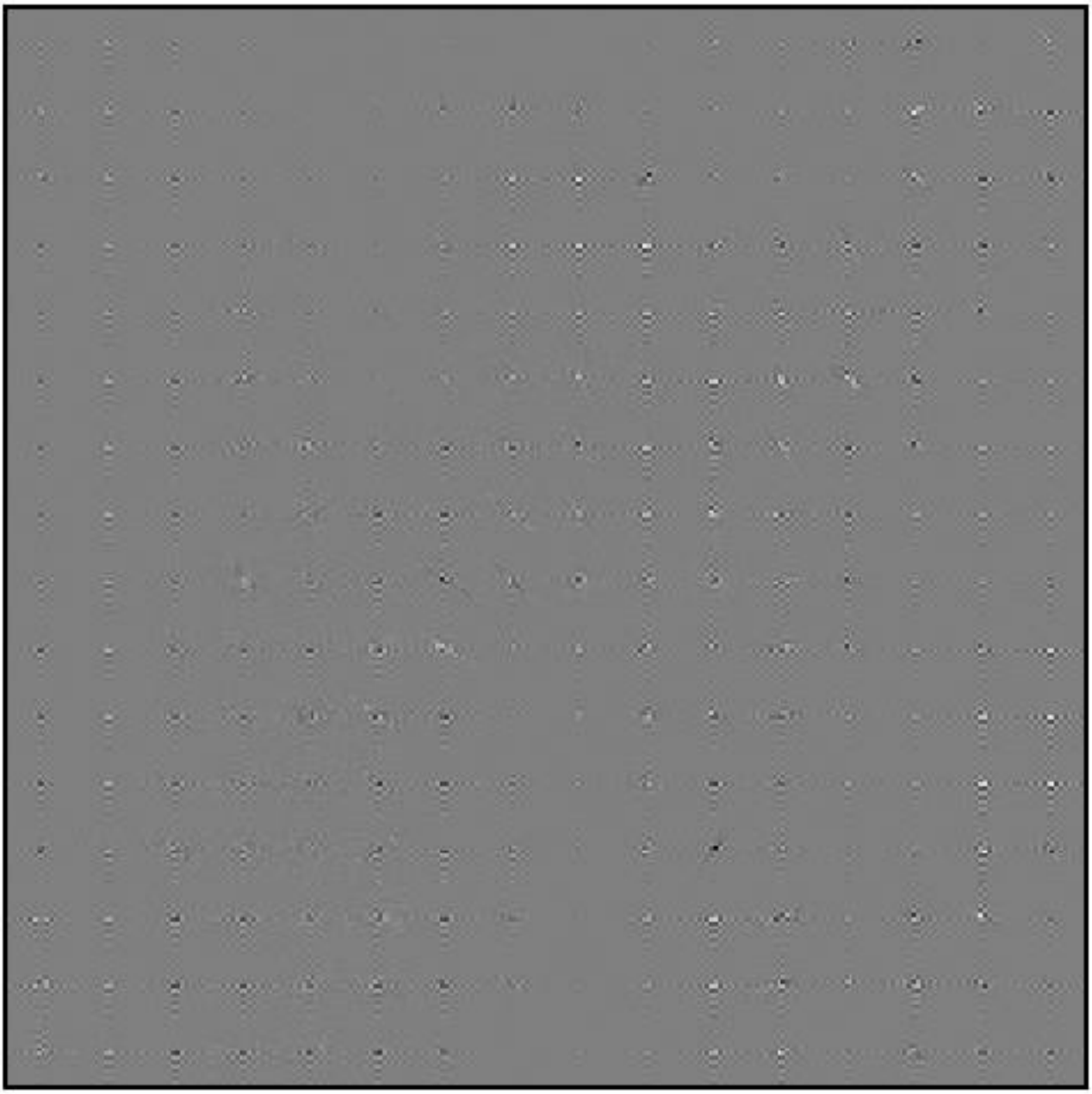
Reconstruction of Lena: 25, 100, 500, and 10,000 Two-Dimensional Gabor Wavelets



Pixel histogram of original Lena image: entropy = 7.57 bits/pixel



Empirical 2D receptive field profiles of neurones in the brain's visual cortex (top row), resembling 2D Gabor wavelets (middle row)



Complete 2D Gabor Transform of the original Lena image
(Gabor coefficients represented as grey value)

Histogram of coefficients in the complete 2D Gabor Transform of Lena: entropy = 2.55 bits/pixel

Reconstruction of Lena from her complete 2D Gabor Transform