A Wavelet Tour of Signal Processing
Stéphane Mallat, Academic Press 1999 (2nd edition)

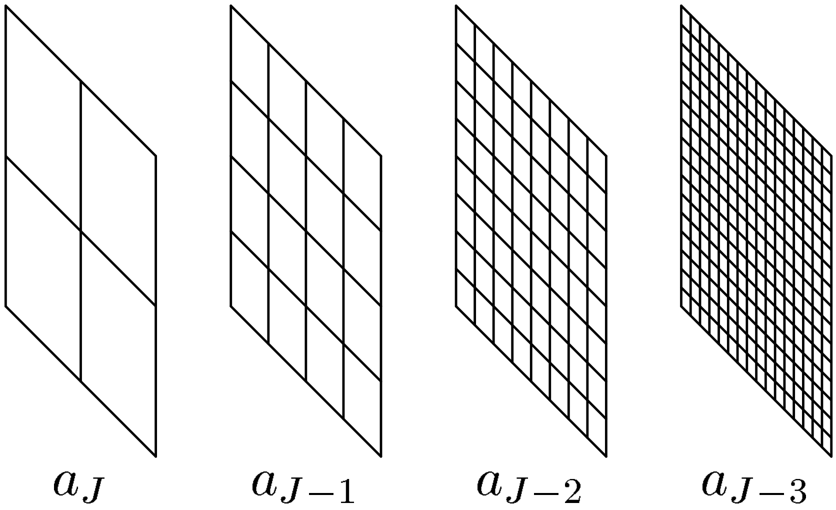

Figure 11.20: The pixels of an image approximation a_j correspond to averages of the image intensity over blocks of width proportional to $N\,2^j$.