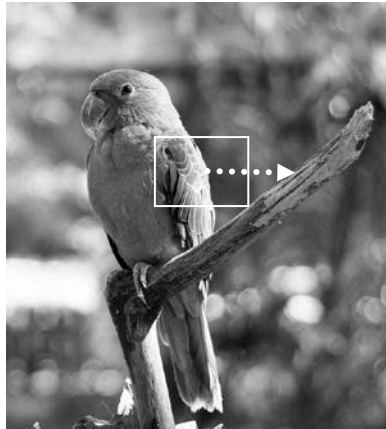
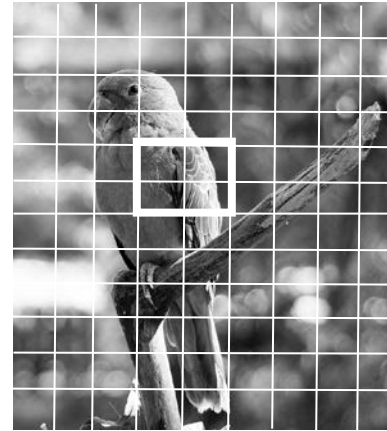


Adaptive histogram equalization

- Histogram equalization based on a histogram obtained from a portion of the image



Sliding window approach:
different histogram (and
mapping) for every pixel



Tiling approach:
subdivide into overlapping
regions, mitigate blocking
effect by smooth blending
between neighboring tiles

- Limit contrast expansion in flat regions of the image, e.g., by clipping histogram values.
("Contrast-limited adaptive histogram equalization")

[Pizer, Amburn et al. 1987]

Adaptive histogram equalization

Original image
Parrot



Global histogram
equalization



Adaptive histogram
equalization, 8x8 tiles



Adaptive histogram
equalization, 16x16 tiles



Adaptive histogram equalization

Original image
Dental Xray



Global histogram
equalization

Adaptive histogram
equalization, 8x8 tiles

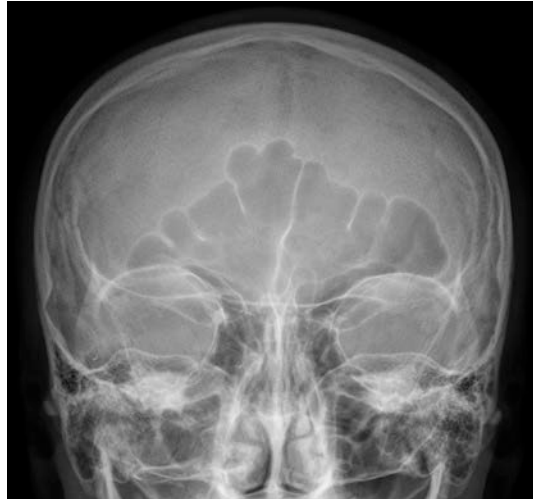


Adaptive histogram
equalization, 16x16 tiles



Adaptive histogram equalization

Original image
Skull Xray



Global histogram
equalization



Adaptive histogram
equalization, 8x8 tiles



Adaptive histogram
equalization, 16x16 tiles

