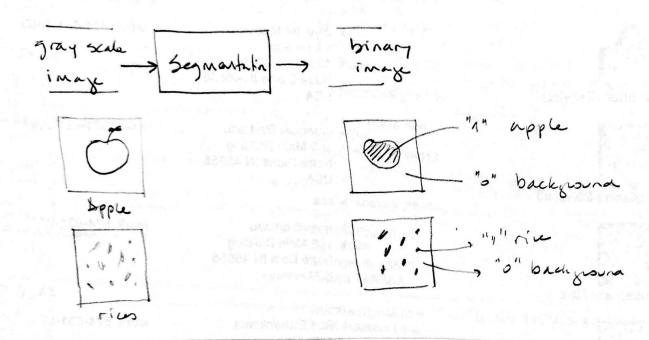
## SEGMENTATION

Process of partitioning an image into "segments"
GOAL: To simplify the representation of an image
in order to have something more meaningful.



1) From edges to regions

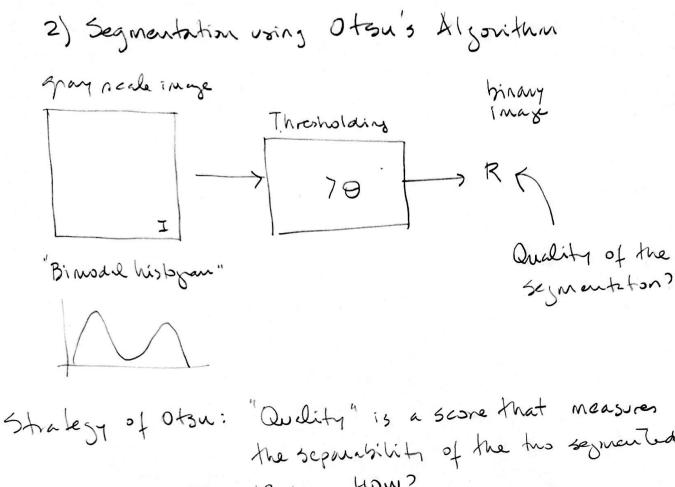
The region should be have closed boundary

10. 11 : edge
10. 11 : o': No-eage

SEE — IMG08\_RegionGrowing.pptx

In Matlab:  $E \leftarrow Edges$  $[L, n] \leftarrow bwlabal(not(E), 4)$ 

- it labels connected components



the separability of the two segmented regions, thou?

Example

Back

Book

Ton

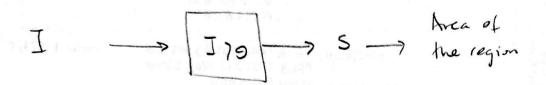
We can measure My -> mean of "1" Ms - s mean of "s" of 2 - variance of "14 of 2 - variance of "o"

A good separability means 1) An = M, -Mol -> Max 1) - The two regions are far away from each other 2) of -> Min AND of -> Min 2) -> The dishibitions are very narrow

(W. -Wa)3 Quality = J,2 + J,2

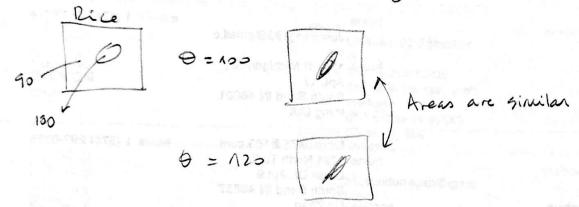
IMG08\_SegmentationOtsu.m

3)	Segmentim	using	MSER	Algorithm



Area is a function of O

ΔA ΔΘ It we have a "stable" region,
its area does not change very much
by changing the threshold



MGER segments those "stable" regions that means those that have  $\frac{\Delta A}{\Delta \Theta}$  small

See IMG08\_SegmentationMSER.m