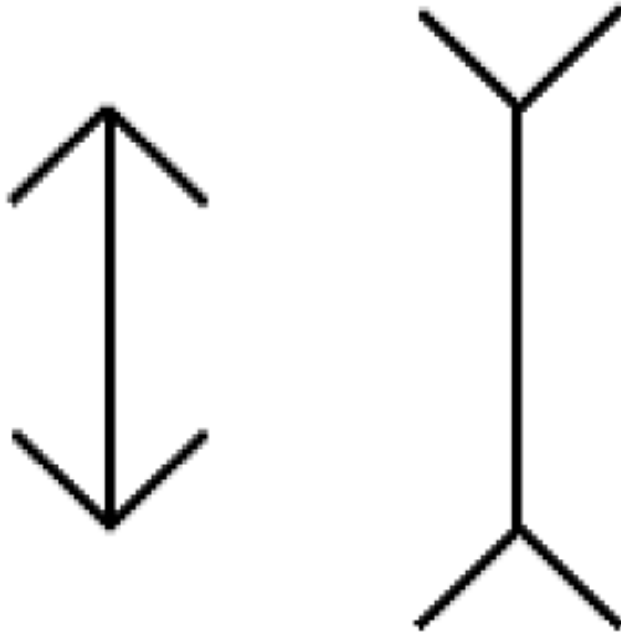
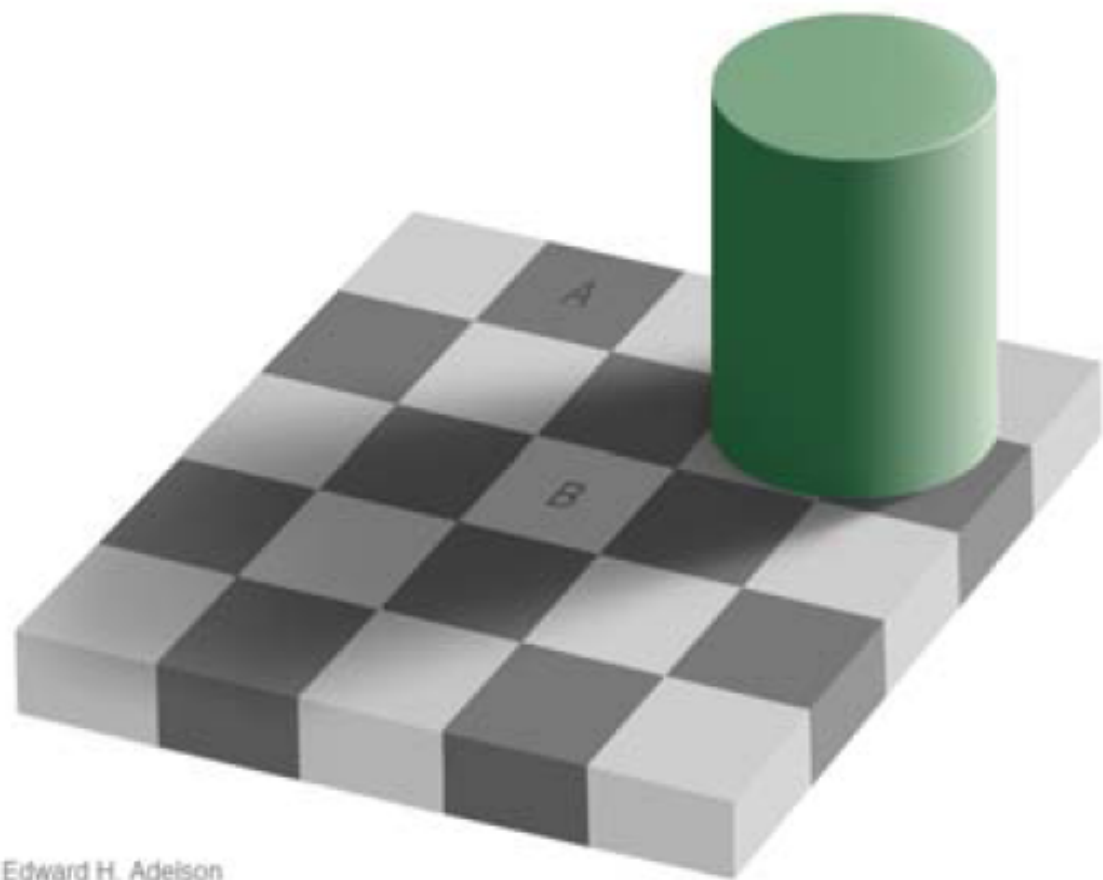


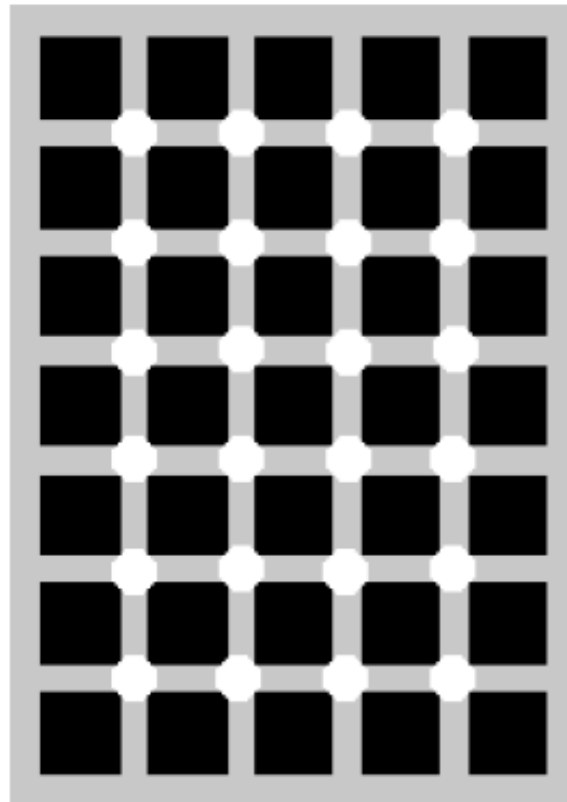
# What can optical illusions tell us about human vision?



[Figures from Szeliski]

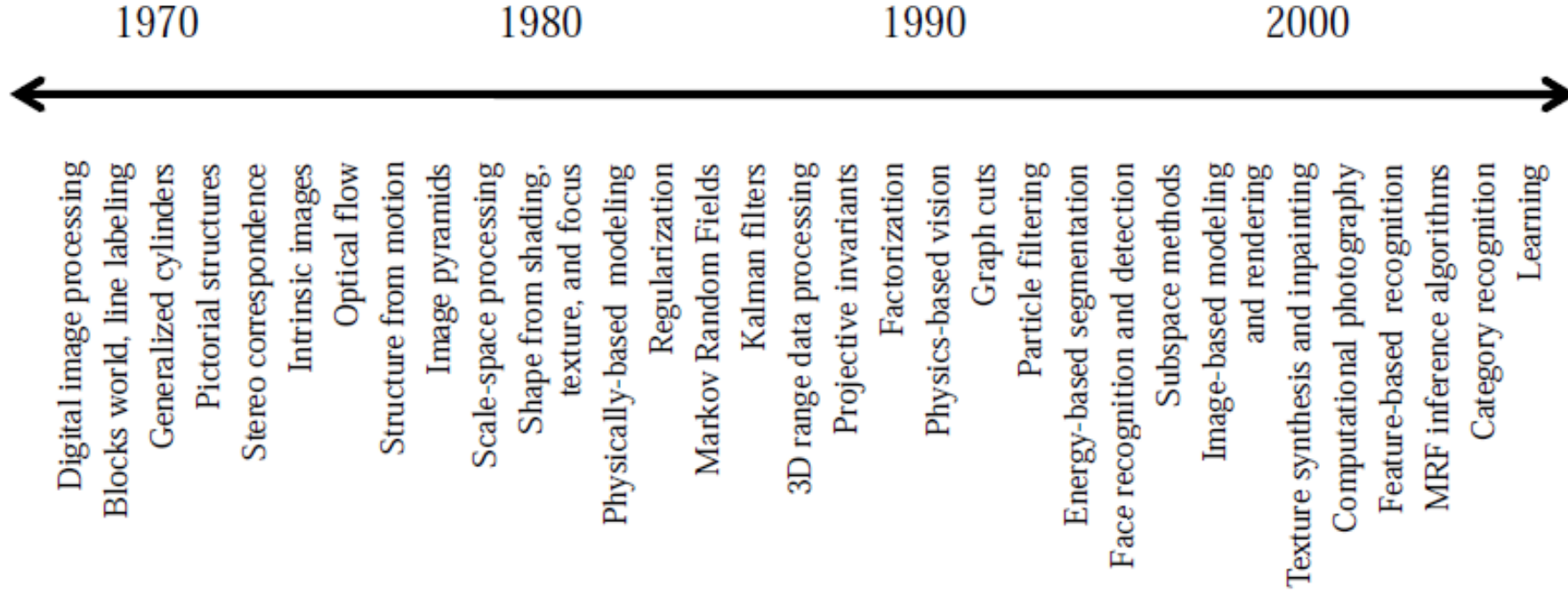


Edward H. Adelson



X	X	X	X	X	X	X	O	X	O	X	O	X	X
X	X	X	X	X	X	X	X	O	X	X	X	O	X
X	X	X	X	X	X	X	O	X	X	O	X	X	O
X	X	X	X	X	X	X	X	X	O	X	O	O	X
X	X	X	X	X	X	X	O	X	X	O	X	X	X
X	X	X	X	X	X	X	X	O	X	X	X	O	X
X	X	X	X	X	X	X	O	X	X	O	X	X	O
X	X	X	X	X	X	X	X	O	X	X	X	O	X
X	X	X	X	X	X	X	X	X	X	O	O	X	X
X	X	X	X	X	X	X	X	O	X	X	X	O	X

# Historical timeline



# Two perspectives

Inverse problem: Understand the properties of the world, given observed images (insufficient information to specify fully)

**Physics-based models (*forward* approach)**

Starting from known laws and primitives, how can we explain our observations? What kinds of objects and conditions are compatible with them?

**Statistical modelling / Machine learning (*backward* approach)**

Infer the state of the world probabilistically, based on observations; model and estimate (from training data) the probability distribution of the former given the latter

