Wrap Up

We talked about

- Filters
- Edges
- Corners
- Interest Points
- Descriptors
- Image Stitching
- Stereo
- SFM

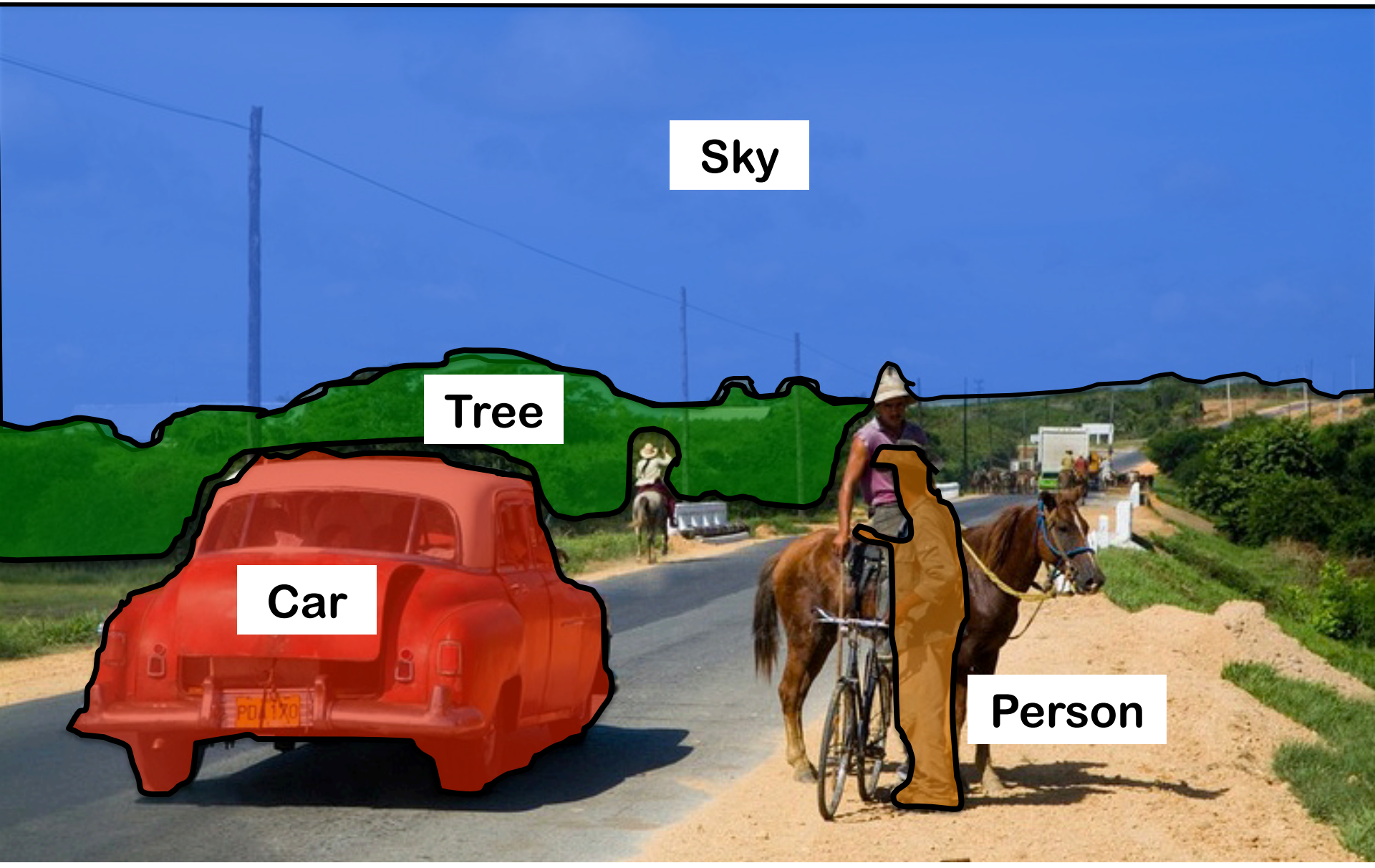
We talked about

- Reconstruction
- Flow
- Face Detection
- Face Recognition
- Pedestrian Detection
- Part-Based Recognition
- …

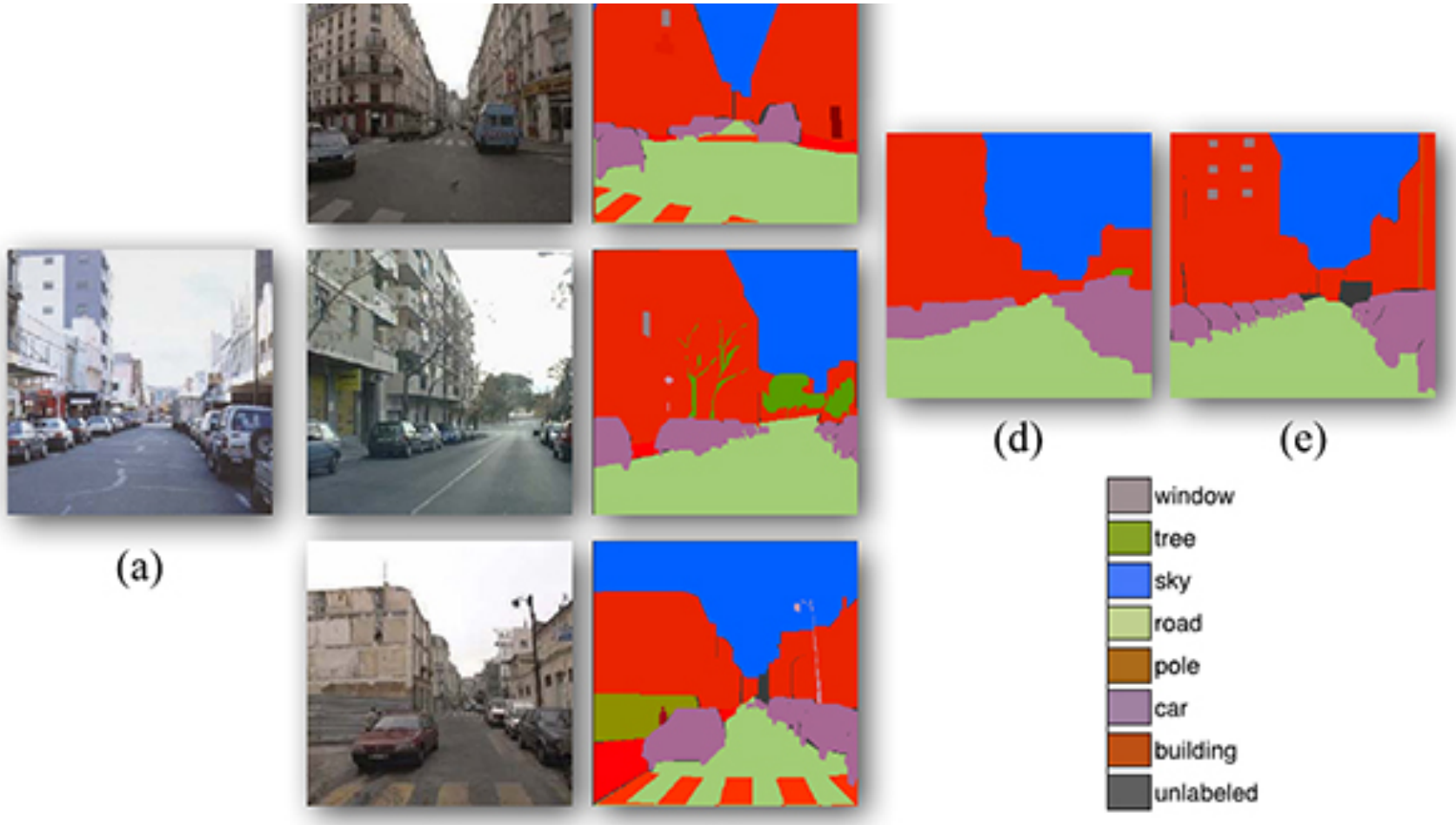
What else?

- Several other interesting stuff that we wanted to talk about them

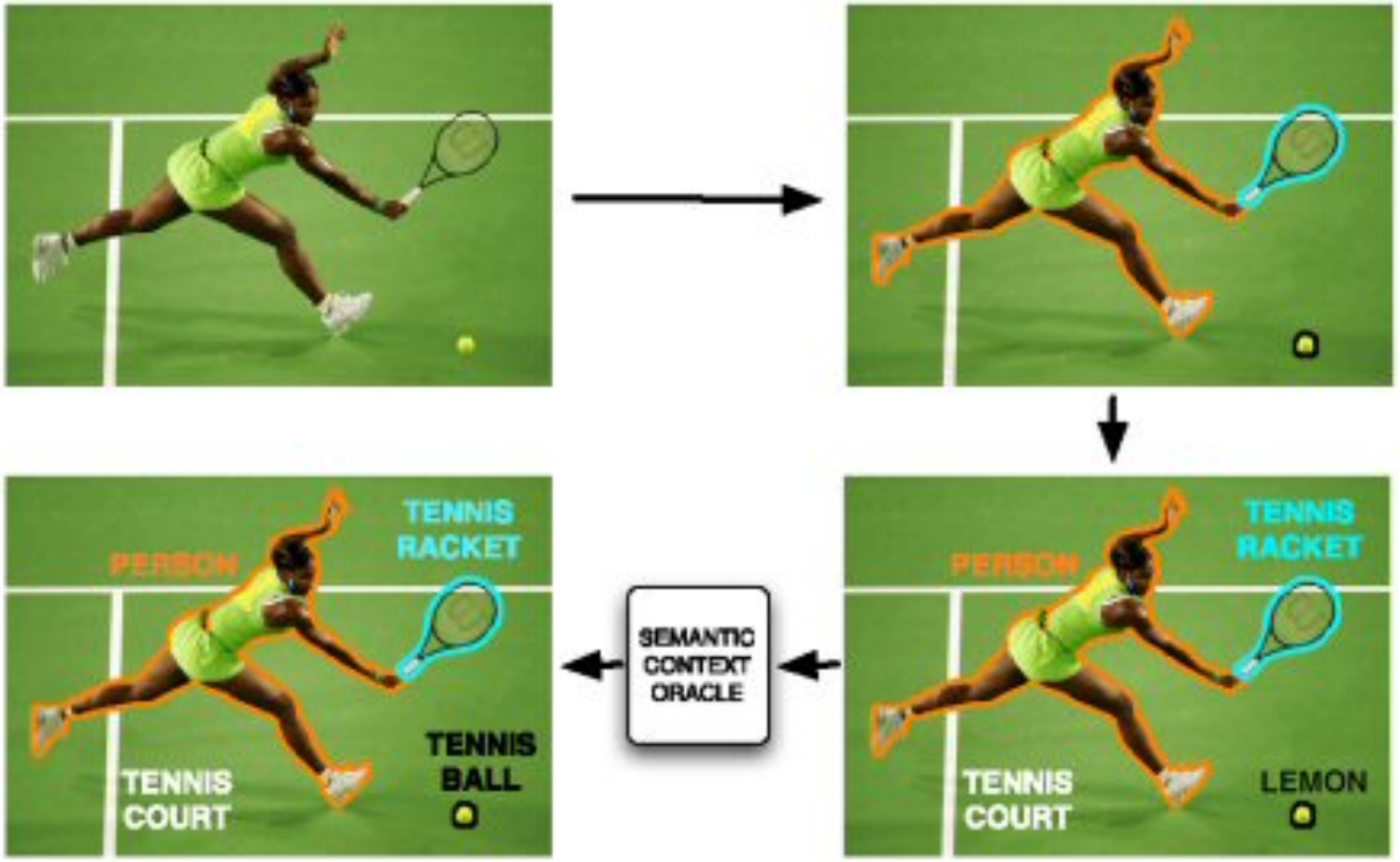
Image Segmentation



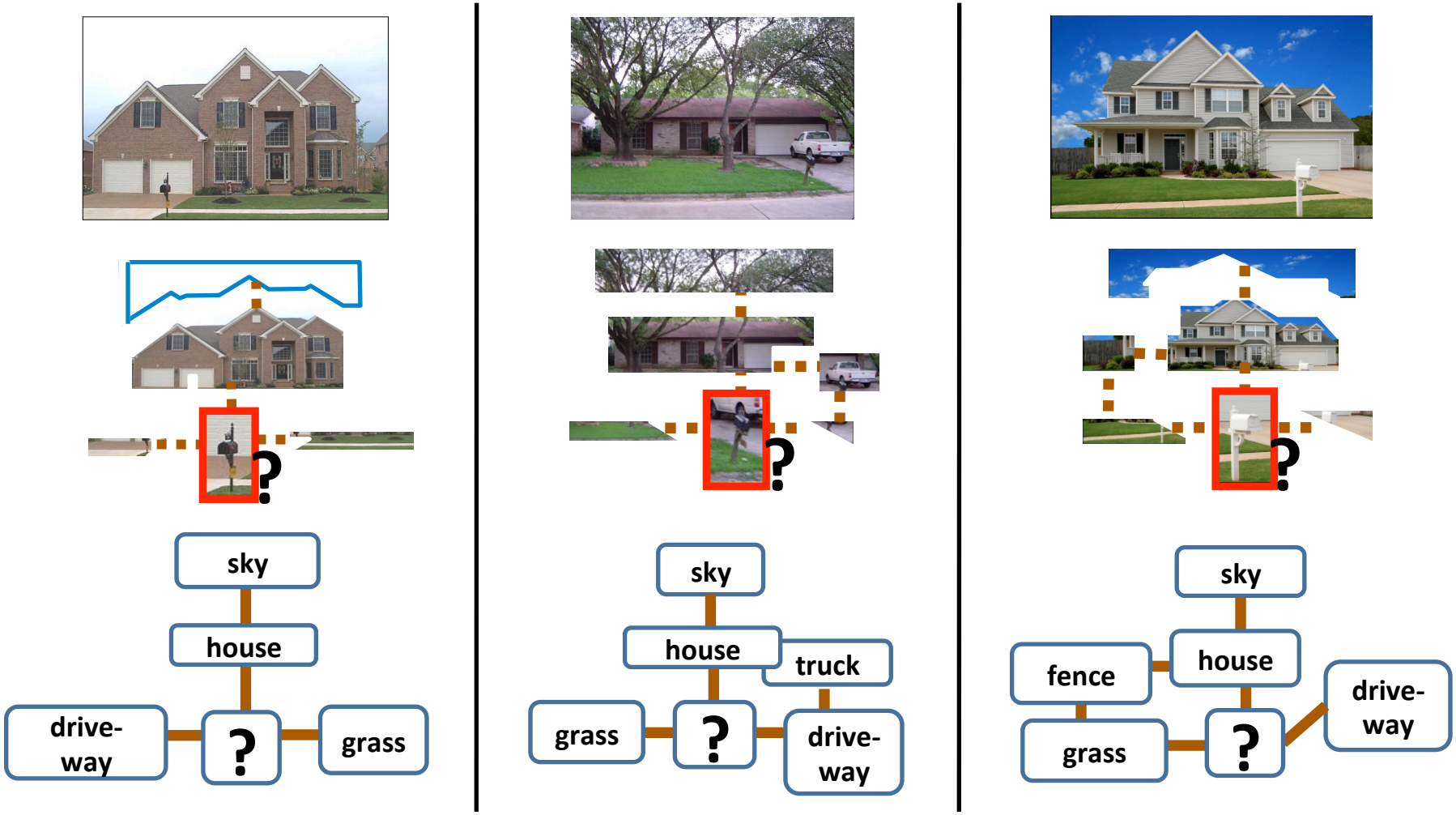
Scene Parsing



Context


PERSON
TENNIS RACKET
TENNIS COURT
TENNIS BALL
SEMANTIC CONTEXT ORACLE
PERSON
TENNIS RACKET
TENNIS COURT
LEMON

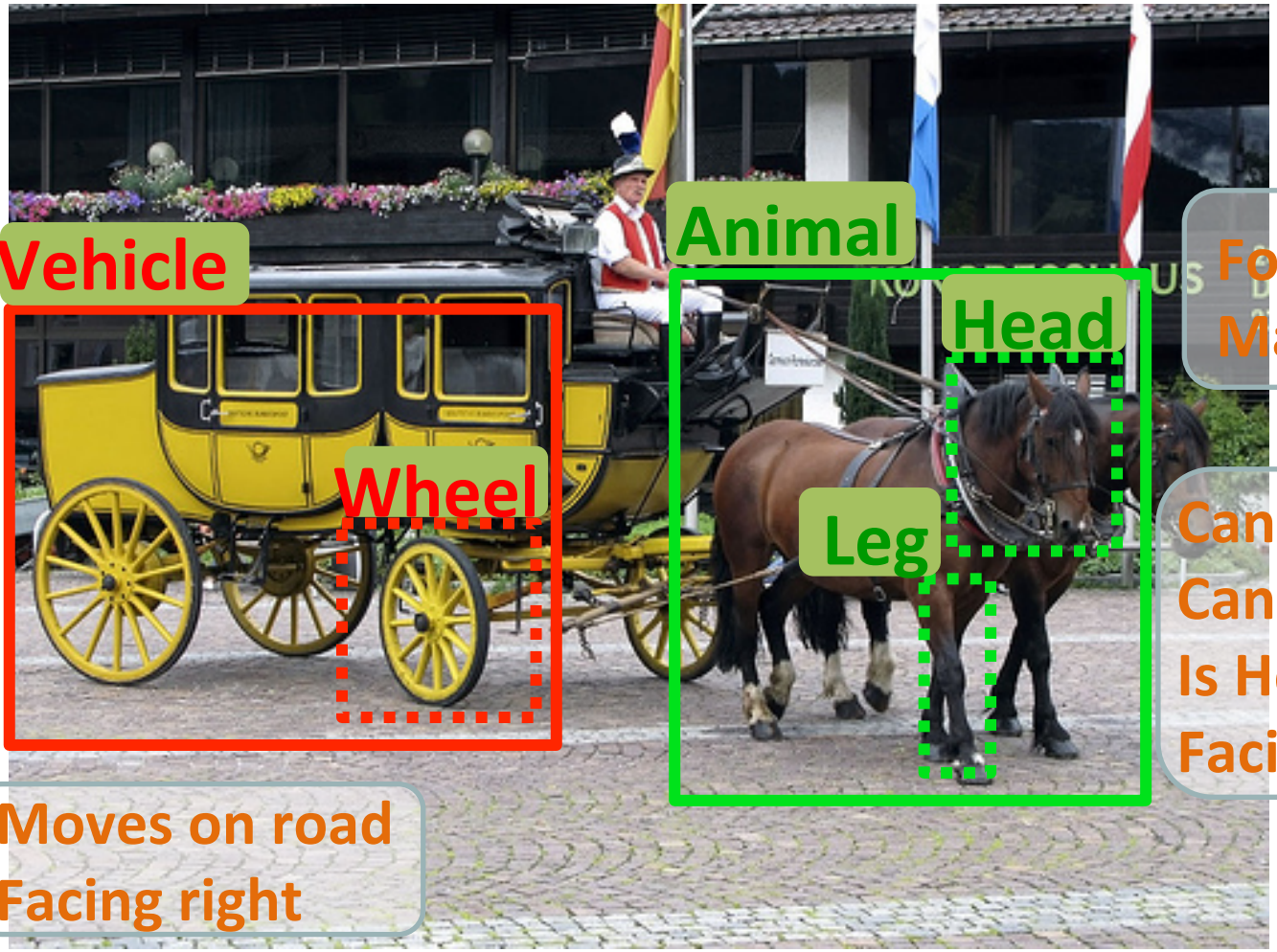
Context-aware visual discovery



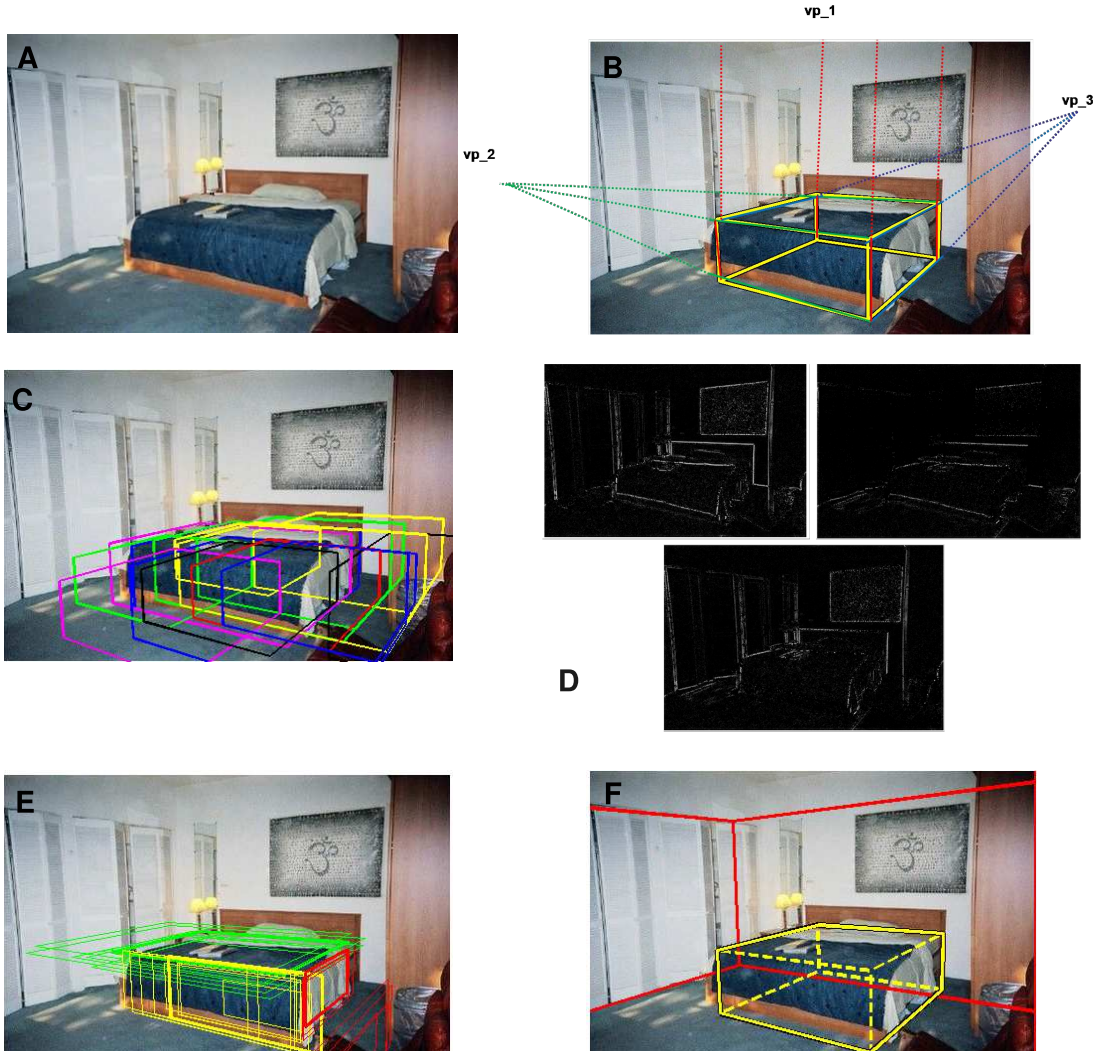
Context in supervised recognition:

[Torralba 2003], [Hoiem et al. 2006], [He et al. 2004], [Shotton et al. 2006], [Heitz & Koller 2008], [Rabinovich et al. 2007], [Galleguillos et al. 2008], [Tu 2008], [Parikh et al. 2008], [Gould et al. 2009], [Malisiewicz & Efros 2009], [Lazebnik 2009]

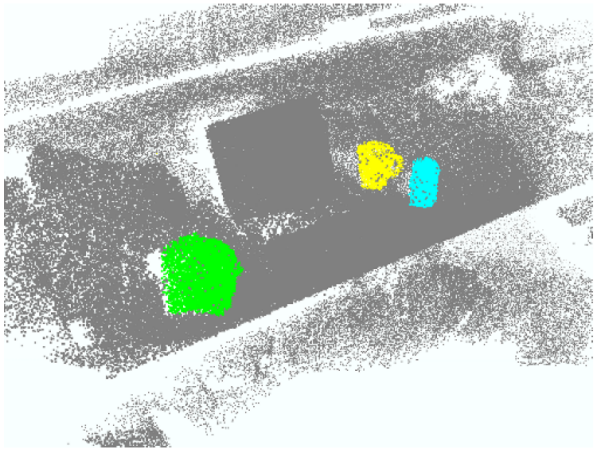
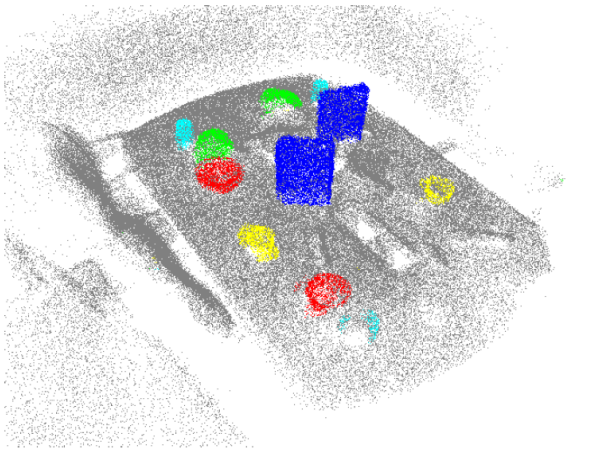
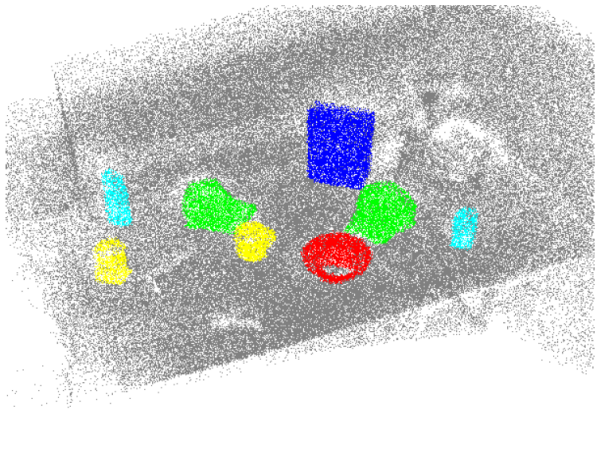
Attributes


Vehicle
Wheel
Animal
Head
Leg
Four-legged
Mammal
Can run
Can Jump
Is Herbivorous
Facing right
Moves on road
Facing right

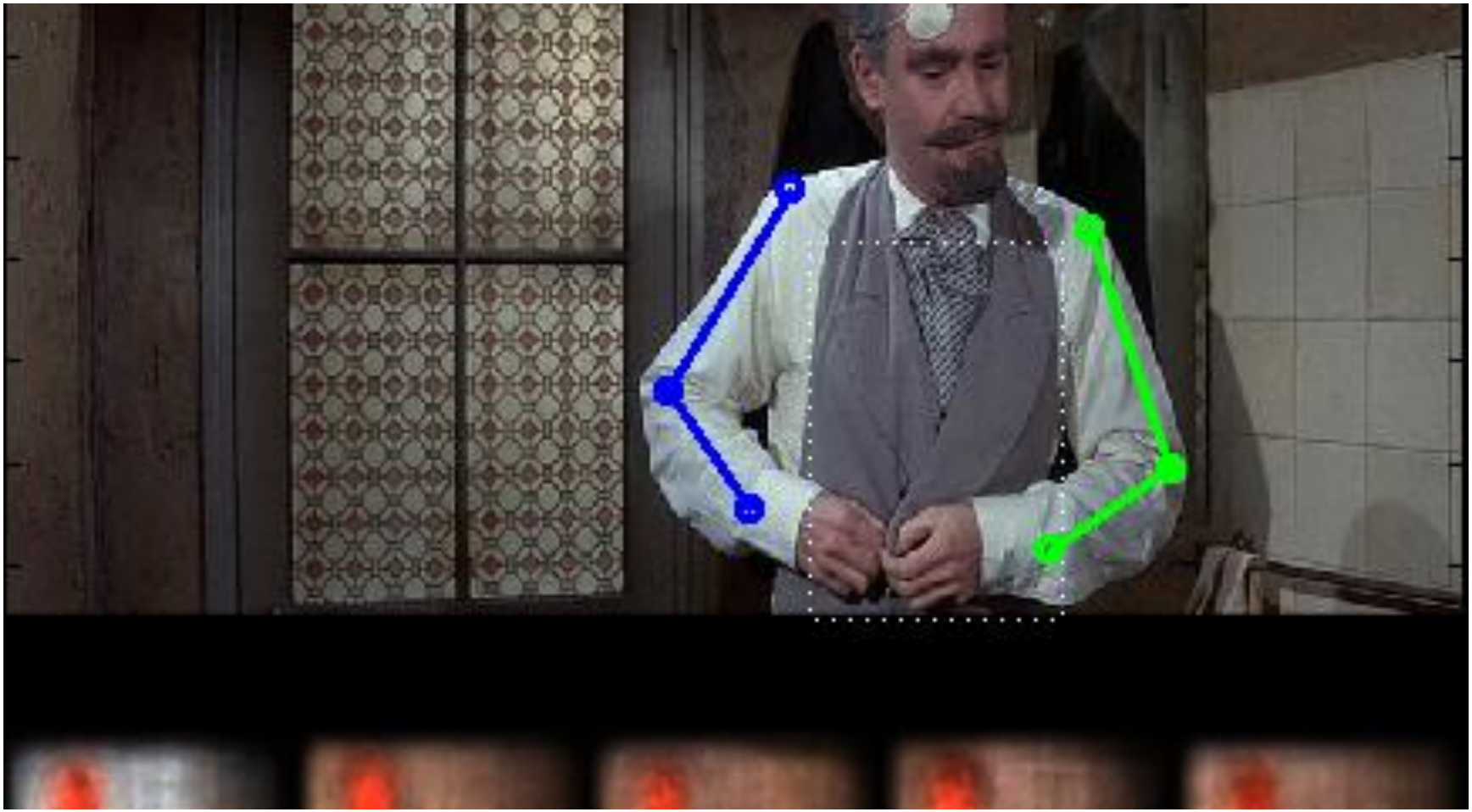
3D Recognition

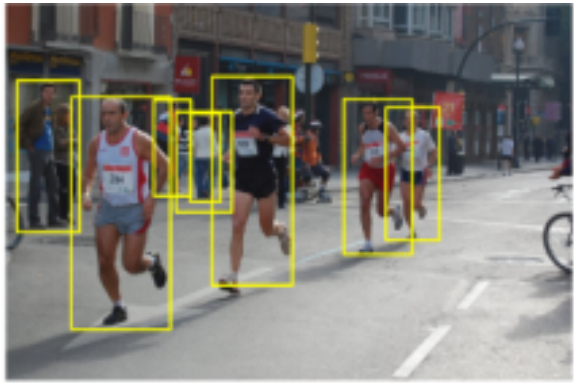
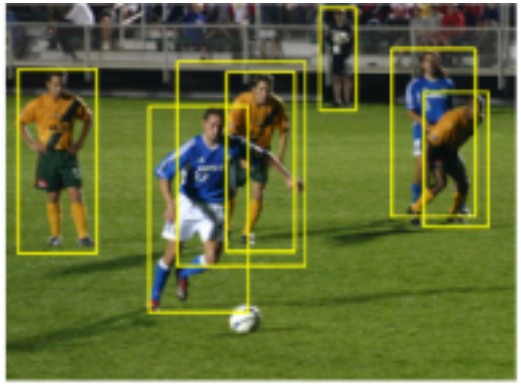
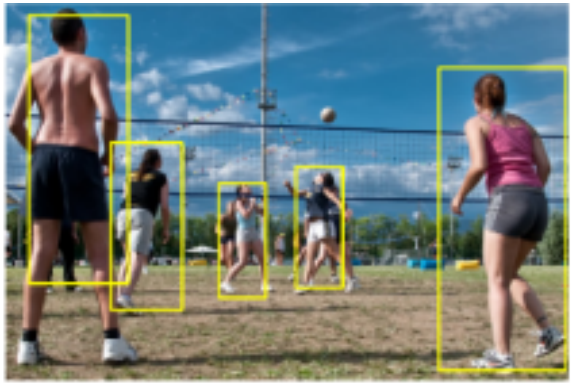


RGB-D

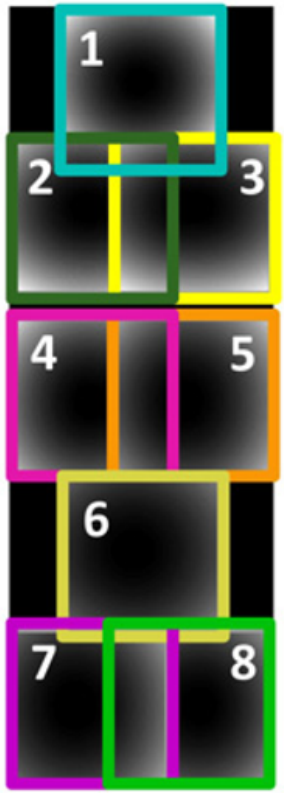




Pose Estimation

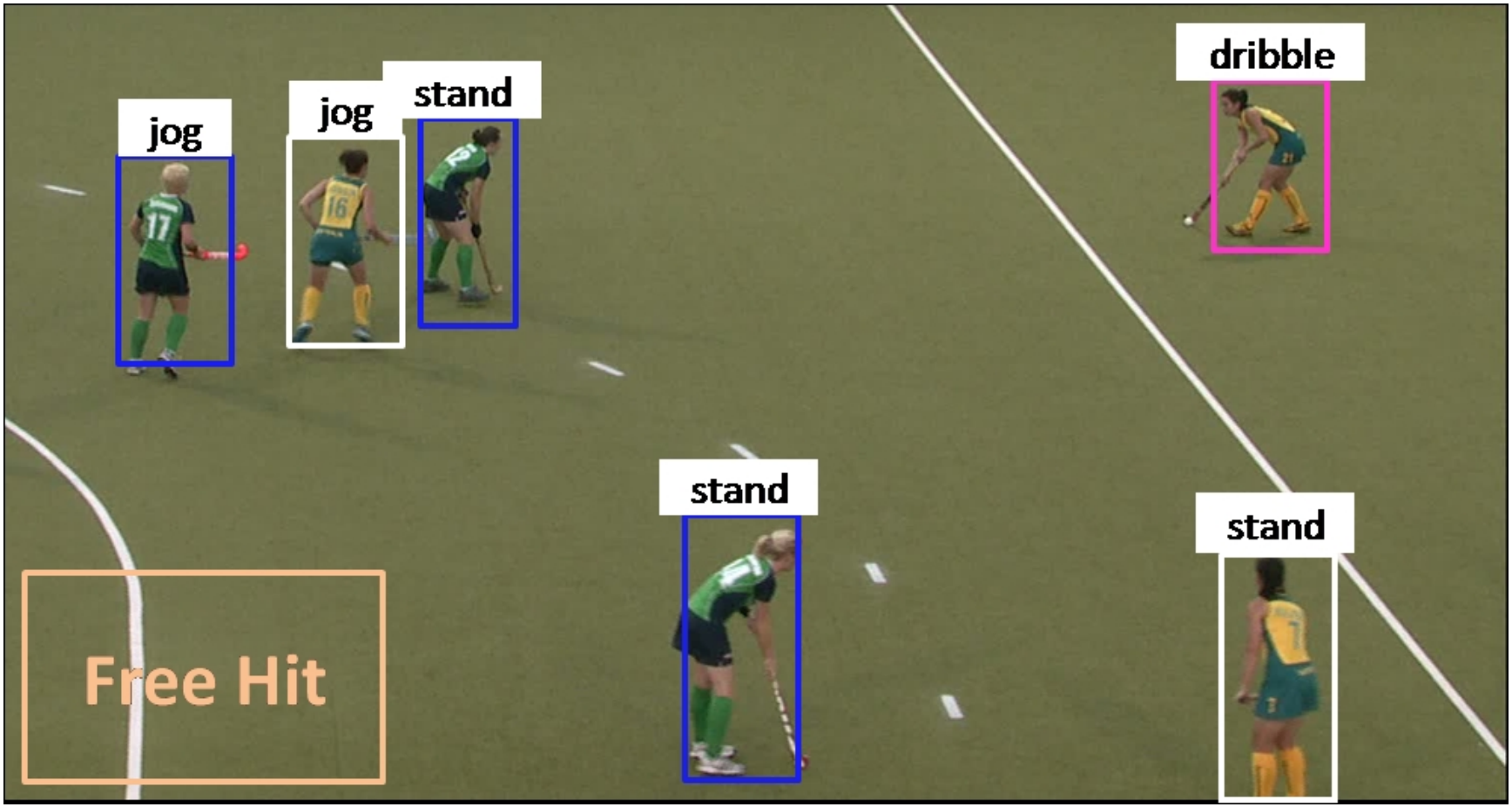


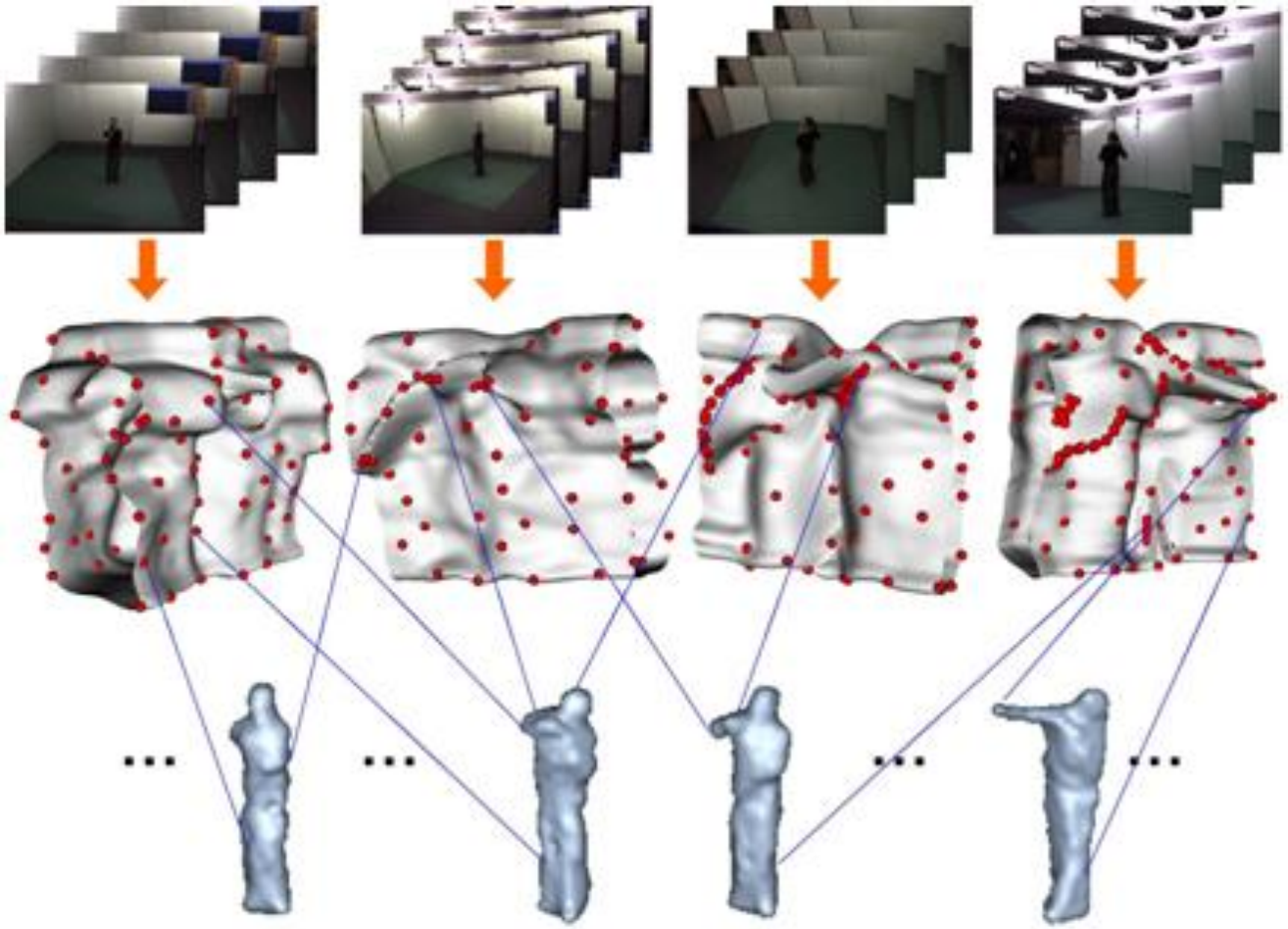
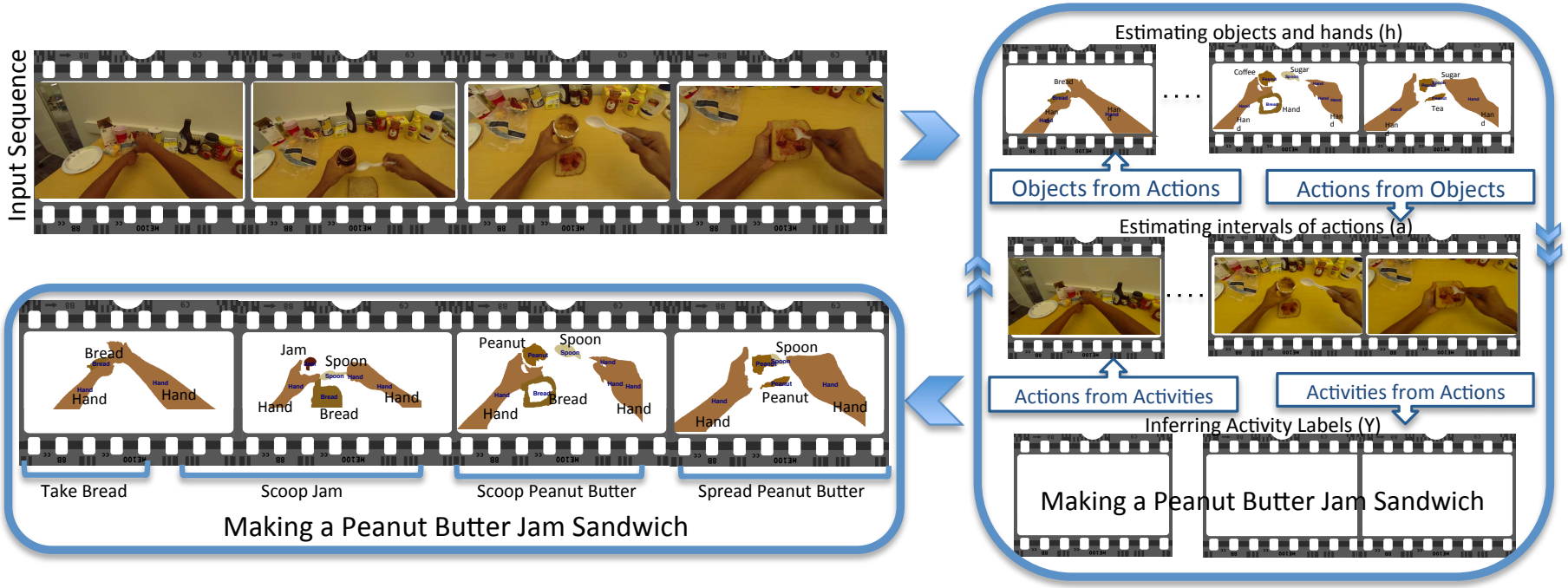
Tracking



Action Recognition



Action Recognition



Egocentric Vision