Today

• Introduction to *Cognition in the Wild*

• Midterm
Trobiand Islands, Papua New Guinea
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Context

• Cognitive anthropology, following cognitive science, left society and practice behind

• Culture as ideas - the ideational definition

• Culture only affects content of thought

• An obsolete division of intellectual labor -
  – psychologists can be responsible for process,
  – anthropologists deal with content.
Trobiand Islands, Papua New Guinea
“Cognition in the Wild”

• Human cognition in its natural habitat -
  – naturally occurring,
  – culturally constituted
  – human activity.

• Contrast cognition in captivity.
Cognitive Ecology

• Human cognition adapts to its natural surroundings (Leaky mind).

• Multiple time scales
  – on-going activity
  – learning in a lifetime
  – historical changes in activity systems
  – evolution of the human mind
How?
How?

“[Ed Hutchins] is considered the father of modern **Cognitive Ethnography**.”

-- Wikipedia, *Edwin Hutchins*

(retrieved 3 October 2007)
What is Ethnography?

• The scientific study of culture...especially using participant observer methods.
  – live in a community
  – learn the language
  – do what the members of the community do
  – learn to see the world as it is seen by the natives
The Ethnographer’s responsibility

• To understand what things mean and why things mean what they mean.

• To make the grounds for interpretation explicit.

• This goes beyond just becoming a member of the community.
Trobiand Islands, Papua New Guinea
Airline Cockpit

747-400 Over the North Atlantic
Navigation team on the bridge of the Palau
Why Ship Navigation?

• Navigation is an interesting and complex, obviously cognitive, human activity system with a long, well-documented history.

• In order to understand human cognition we must carefully observe the complex ways in which cognition adapts to naturally occurring culturally constituted activity.

• This can only be done by attending to the fine details of some real activity system.
Why Ship Navigation?

• The focus is on navigation to the extent that it is necessary to understand how cognition is situated in that activity.

• The discoveries to be made here are about cognition, not about navigation.
Academic-reading-jitsu

• Before starting, review the chapter summary (hidden in the Introduction)
Chapter 1, “Welcome Aboard”, attempts to locate the activity of ship navigation in the larger world of modern life. It weaves together three journeys: a movement through physical space from the “street” to the ship, a movement through social space from civilian to military life, and a movement through conceptual space from everyday notions of wayfinding to the technical domain of navigation as practiced on the bridge of a Navy ship. Military ranks and the ways in which military identities are formed are presented here because these things affect individuals' relationships to their work. An important aspect of the larger unit is that it contains computational elements (persons) who cannot be described entirely in computational terms. Who they talk to and how they talk to one another depend on these social organizational factors. This chapter also contains a discussion of the relationship of the researcher to the activity under study.
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  – If you don't know, flip back to check the summary, previous section headings, first/last paragraphs of sections
Why the obsession about military arcana?
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CitW: Chapter 1

• Narrative about emergency
• Three journeys through three kinds of space
• Basic information about navigation
• Narrative about taking navigational fixes
CitW: Chapter 1

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CitW: Chapter 1

• Narrative about emergency
• *Three journeys through three kinds of space*
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Three kinds of space that matter for cognition

1. Physical space
   Street, base, ship, navigation bridge

2. Social space
   Civilian, military, navy, amphib navy, QMs

3. Conceptual space
   Everyday wayfinding, technology-based professional navigation

• What information goes where, when, in what form?
Why physical space matters

• What is near to what
• What can be seen
• Architecture and cognition
• How bodies fit in space

• Arrangements of physical space affect where information can easily go.
Why social space matters

• Social organization (groups, identities, statuses, roles, and ranks) all affect the flow of information.

• They therefore affect the cognitive properties of social groups.

• Social arrangements affect where information is likely to go.
Why conceptual space matters

• The conceptual structures of ship navigation determine the content of the information and the organization of the representations in which information is encoded.
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Questions?
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