

Research Foci for a Department of Anthropological and Evolutionary Sciences

There is an evident and pressing need, with the burgeoning of interdisciplinary human sciences in the 21st century, for UC Irvine to develop a series of foci for integrating the Anthropological Sciences in terms of research, academic programs, and a home for faculty and joint appointments in the Anthropological and Evolutionary Sciences. The proposed Department would link to other programs and departments in Biology, Cognitive Sciences, Earth Sciences, Human Ecology and Evolutionary Biology, Medicine, Mathematical Behavioral Sciences, Neurophysiology, Information and Computer Sciences, and Statistics, among others, and encompass as its subject matter human evolution, environment and behavior in the broadest senses.

Primate and Human evolution: Behavior and ecology, evolutionary biology; primate phylogeny; primate evolution and paleoecology; functional and developmental morphology. Hominoid genetic evolution, behavior of early hominids, foraging theory, human ecology.

Archaeology: Tools and technologies, evolution of civilizations, early state formation. (Ericson to rewrite)

Molecular anthropology: Using genetic data to make phylogenetic inferences; estimating branching patterns for living taxa; using clock-like genetic data in conjunction with appropriate fossil-based calibrations to yield divergence dates. (Wallace to rewrite)

Mathematical and Computational anthropology: Formal models of cultural processes, simulation, social networks. Multi-agent simulation, Monte-Carlo and statistical methods, complex adaptive systems, evolutionary game theory. (Input from ICS and MBS affiliates)

Cultural development and Social change: The structure, function and evolution of social forms and networks, kin groups, tribes, states. Dynamics of social processes and implications for demography, gender, division of labor, cultural cognition, ethics, human behavior and for both mental and physical health.

Economic organization: Dynamics and evolution of social formations, economic development, globalization. (Bell to rewrite and integrate)

Cognitive anthropology: The distribution of knowledge within social groups, the multidimensional scaling of knowledge and attitudes, cultural grammars and decision models, schema networks and neurophysiological mappings of culturally patterned phenomena. (Romney and Carmella to rewrite)

Social networks: Dynamics and structure of human social interaction, causes and consequences of cohesive groupings, role structures, social movements and institutions, emergence out of interaction. (White to rewrite and integrate)

Musicology and Expressive forms: The evolution and distribution of language, games, arts, myth, beliefs, music and religion. (Garfias to rewrite)