

Evolutionary Mechanisms Beyond the Basics: Envisioning Complex Processes in Hominin Evolution

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As educators and science communicators, biological anthropologists are typically adept at explaining the fundamental details of molecular genetics, Mendelian inheritance, and the primary forces of evolution. Although mastery of these basic concepts is necessary for embarking on all evolutionary inquiries, this level of explanation is insufficient for parsing and elucidating the convoluted events and evolutionary processes that span hundreds of thousands – let alone millions – of years.

Workshop participants will explore evolutionary mechanisms in greater depth. Full-group discussions and break-out group activities will foster collaboration among participants to develop strategies for incorporating these more complex understandings into human evolution courses and research programs. Topics will include (but are not limited to) epigenetics, lateral gene transfer, adaptive mutability, and techniques for addressing synergistic effects between multiple evolutionary forces and mechanisms. Participants are encouraged to share – with the session organizer in advance, and/or with all during the session – relevant examples from their own research, readings, and experiences.

In-session objectives include: developing a list of relevant evolutionary mechanisms, establishing clear definitions and real-world examples for each, discussing how each might relate to hominin evolution and what each might look like in the genetic and fossil records, and brainstorming strategies for addressing these topics in classrooms and research projects.

Longer-term goals include: establishing a network of colleagues interested in ongoing communication on these issues, development (and sharing) of classroom and laboratory activities for engaging with these topics, and compilation (and sharing) of a bibliography of pertinent literature.

Day: Friday, March 22nd

Time: 12:15-2:15 pm

Location: Online only, Zoom link to be distributed

Note: Workshop participants will collaborate to develop strategies for applying deeper understandings of evolutionary mechanisms – their complexities and synergies – toward teaching and research on hominin evolution. This workshop is online only. **Registration required.**