Reconstructing Prehistoric Music Technologies: Archaeological Explorations of Humans as Designers

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DEMO ABSTRACT

Despite ubiquitous references to human curiosity and experimentalism across cultures, narratives about life in prehistory (before writing) tend to oversimplify our physiologically equal ancestors. Compounding the tendency to primitivize ancient humans and discount their experimental and expressive capacities is the archaeological practice of material categorization, which has privileged singular definitions of artifact objects. Far more likely than such neat explanations is the proposition that humans encountered sonic properties of materials, objects, and places while in the midst of non-musical activities — and noticing sounds, found them to be compelling and useful in particular ways. As in the present, prehistorical experimentation with how things work to make and shape sound — engineering design — would have led to the creation and refinement of sound-making tools (mechanical music technologies), and also to the use and modification of environmental settings with notable acoustical reinforcement and thus generative of sonic sensory feedback.

Sound and music computing offers an expanding range of tools for studying and demonstrating musical techne in archaeological research. This demo draws on case-study research in the Peruvian Andes and southern France to show how performance studies, acoustics, and auditory science methodologies bring present-day music technologies into sensory conversation with the traces of musical experimentation millennia past. Beyond the scientific documentation of artifact instrument performance, digitized replications, and virtual reconstructions of sounds and sounding contexts, computational methods are enabling new forms of research to parse and represent the archaeological possibility space of artifact materials of ancient musical technologies, revealing the ways that ancient humans were as much designers as we imagine ourselves today.

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