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# Predicting the Past, Recounting the Future: Human Ecology and a Prehistory of Consciousness

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**Predicting the Past, Recounting the Future:  
Human Ecology and a Prehistory of Consciousness**

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About the Author: *Paul Faulstich* is Assistant Professor of Environmental Studies at Pitzer College in Claremont, California. He has lived and worked among indigenous peoples in Australia, Southeast Asia, The Pacific, and North America. He has published extensively on rock art, and serves on the editorial boards of *Rock Art Research*, *Wild Earth* and other transdisciplinary journals. His nonacademic interests include mountaineering, photography, painting, and poetry.

**An Overview**

Over 20,000 years ago, Palaeolithic peoples ventured into the cool darkness of limestone caves and left graphic 'signatures' of their visits. Discovery of these ancient anthropic markings has broadened our understanding of how Pleistocene humans interacted with the environment. These non-iconic finger markings — from Australia and Western Europe — provide enigmatic clues which can help to unveil relationships between nature and the human mind in the Pleistocene.

The markings (also called finger flutings) consist of meandering digital patterns modeled into deposits of a limestone precipitate. The human-made markings are so well integrated into the geography of the caves that until they are acutely inspected they appear to be of geological or non-human animal origin. They are part of the cave, and thus relate the makers to the environment in a ritualized and highly permanent way. The markings metaphorically linked the given with the created, and transformed opposition into connection.

This paper is concerned with the organic derivation and primary meaning of Pleistocene finger flutings; I propose that in order to gain insight into the significance of the flutings, we must attempt an understanding of the physical and mental contexts in which they emerged. I suggest that finger flutings provided a cultural record in the Pleistocene which documented thought and action, and made it ready for reflection. Through the process of finger fluting, the human 'self' was objectified and reality was modified in the experience of self-consciousness. . *argue that finger flutings, like language, were employed to discover and convey new information about the environment and the human position within it.* I suggest that the flutings helped to solve the puzzle of human separation and concurrent integration with the non-human environment. The digital flutings encapsulate a developing theory of reality; they signal an expanding awareness of human existence in relation to nature, and they constitute evidence of a paradigmatic shift in the Pleistocene concept of reality. The finger markings are artifacts of neither pure art nor pure science, but are *artifacts of contemplation in the quest for unity.*

The finger markings provided a nexus between what is concrete (the external world) and what is abstract (the Human condition). As primal markings they were more exploratory than communicatory, and served as precursors to other expressions of new, developing

thoughts. Ultimately, I conclude, *finger markings are artifacts of the human effort at creating meaning*. Their fundamental meaning lies in their expressing affective ties between humans and the existential environment.

## **Introduction**

Over 20,000 years ago Paleolithic peoples of southern Australia and western Europe ventured into the cool darkness of limestone caves and left graphic 'signatures' of their visits. Discovery of these ancient anthropic markings has broadened our understanding of how Pleistocene humans interacted with the environment. Rich and expressive sets of non-iconic finger flutings on the walls and ceilings of numerous caves indicate that prehistoric peoples used these places for symbolic reasons. The finger flutings provide captivating and enigmatic clues as to the relationship between humans and nature in the Pleistocene.

Finger flutings (variously called digital flutings, finger markings, or finger lines) are found in caves in the major limestone regions of southern Australia and western Europe. The flutings consist of meandering patterns modeled in deposits of a limestone precipitate known as *montmilch* ("moonmilk"). The digital markings were made by pulling splayed fingers across the surface of the once soft parietal deposits. In their simplicity of execution and design they have striking visual immediacy.

## ***The Interpretive Approach***

What I offer in this paper are not scientific conclusions, but impressions about the nature and meaning of prehistoric finger flutings. My intent is to explore the philosophical and experiential aspects of Pleistocene relationships with the environment; it must be made clear that this paper is meant to be exploratory, not conclusive.

The question of meaning in prehistoric symbols is a compelling enigma. While other natural philosophers and human ecologists have looked to Paleolithic rock arts for clues to the human condition, they have investigated the later figurative paintings such as those from the caves of Lascaux and Altamira in France, which were created about 15,000 years ago. Finger markings, like the more accessible iconic paintings, are artifacts of the human effort at creating meaning from nature. Meanings, as we think of them, are culturally specific and develop within historical frameworks. A different and more primary level of meaning also exists, arising directly out of ecological and cognitive associations. This *primary* meaning is innate and biological in nature rather than reflective and cultural. *Cultural* meanings on the other hand, are secondary levels of meanings which emerge from these initial cognitive associations.

Pleistocene finger flutings suggest organic derivation and primary meaning. In order to gain insight into the significance of the flutings, we must try to understand the physical and mental contexts in which they emerged. This essay is an attempt at such understanding; an attempt to apprehend why Pleistocene humans ventured into caves and altered the parietal surfaces.

## **From the Present Into the Past**

Humans create new relationships between things in nature through a blend of inspiration and creativity. Let us imagine a fantasy scenario in which you are standing in a torch-lit cavern. Pulling your spread fingers across the cool *montmilch* you reflect upon the enveloping experience of being in the cave. You have created something that is external to yourself yet is a projection of yourself, and you reflect upon the possible meaning of your actions. You have touched the very interior of the Earth, and have changed its

appearance. You see, in the orange glow of your torch, an image of yourself transposed upon the cave wall. You wonder about this Earth and you search for a coherent picture of the world in your marks. You have externalized and visualized a synthesis of humans and nature. You have sparked an analysis of 'self' in relation to 'other'. You have spontaneously, and perhaps unintentionally, conducted an eco-philosophical investigation. You have developed a concept of integration between that which once seemed vastly different. You see unity symbolized in graphic form.

Finger lines constitute direct evidence of environmental manipulation by Paleolithic peoples. The significance of the finger lines lay not so much in the result as in the process. It was the *act* of externalizing and symbolizing that was of primary significance, not the resulting markings.

In guessing at the nature of Pleistocene cultures and the peoples' prevailing conception of the universe, archaeology carries us only so far. What further can be deduced must come from our intuitive understanding of the workings of the human mind, a mind that is essentially the same today in structure and capacity as it was in the Pleistocene (see Shepard 1973). We can only understand the world in reference to the human mind, for we are the creatures attempting to understand it. Human constructions of nature are subjective, and they ultimately require subjective interpretation in order to be comprehensible.

Digital flutings allude to the explorations and imaginations of Pleistocene humans. Tactile exploration was a means of understanding the environment, and defining the human place within it. By viewing finger marking as *process*, act and artifact are seen as concurrent and inseparable; the artifact being the lasting manifestation of the act. Contained within the artifact are the experiences and emotions behind the act of creating, and the artifact is a phenomenon of the externalization of consciousness.

Prehistoric digital flutings continue to be vital expressions precisely because we are able to see within someone else's expression of 'self' aspects of our own 'self', and thereby map more of the human 'self' as a whole. Human archaeology may tell us more about ourselves than it tells us about prehistoric peoples. As a species we *Homo sapiens* have the ability to reflect upon our perceptions and experiences, and to project the artifacts of other humans onto the world of our own lived experience. Thus, we can look to the artifacts to tell us about what it means to be human within an ecological context.

### ***Symbol, Experience, and Transformation***

Nature and experience are the stuff through which symbols emerge. Symbolism burgeons through the exploration of natural world. Primary symbols consist not simply of things of the world, but of experiential insights that bring congruence and meaning to human existence. Thus, experience may transform into symbols.

Symbols consist not just of cultural codes to be deciphered, but of latent perceptions, emotions, and experiences to be discovered. Gallus (1977:372) suggests that 'symboling' is a biologically important process that has evolved and flourished over time. Symbols are rich insights through which the mind synthesizes many particulars into single expressions. They are constructions of reality that bring experience into a synergistic relationship with our ways of being in the world, and they draw us into looking at the world with fresh discernment. The ability to superimpose artificial patterns over natural patterns has contributed to *Homo sapiens* capacity for symbolizing. Such acts activate cognitive processes through which new concepts are developed and synthesized.

Making finger flutings was concurrently exploring, creating, and reaffirming a philosophically-based reality which positioned humans within a structured cosmology. It

entailed reflecting on the relationship between humankind and the natural order, and may have provided a partial means of resolving the dichotomy between nature and culture that had emerged with *Homo sapiens* self consciousness (Alland 1977:92).

Human conceptions of ecological reality are constructed and made possible through consciousness. Finger flutings emerged out of cognitive responses to perceptual stimuli. They provided a vivid record of documented thought and action, and made it ready for reflection. Indeed, digital flutings exuberantly proclaim both spontaneity and reflection; a synthesis which was instrumental in the internalization of concepts and in the formation of an integrated worldview. If abstract thought somehow separated Paleolithic humans from nature, then it also enabled them to subsequently reintegrate with the biome.

Creative activity signals changes in consciousness and is accompanied by learning and expanding perceptions. As a myth-creating activity, symboling helped to shape a view of reality. If the difference between useful inventions and artistic inventions corresponds to the difference between changing the environment and changing our perceptions of the environment, then we must account for artistic inventions in terms of perception (Kubler 1962:69). Viewed synergistically, perception is "the *medium of intercourse* between the world that is known and the person who perceives and knows it" (Keen, 1972:91, original emphasis). Among its other functions, perception acts as a filter, screening out unnecessary 'noise' from the world. As a species, *Homo sapiens* can make sense of nature only by reducing its unfathomable complexity into a finite system of metaphors, thereby altering not so much the physical environment, but our sense-making capabilities of perception.

Symbolic expressions emerge from human cognition and perception, which are keyed to the environment. They enlarge human awareness directly by providing new ways of experiencing the universe (*Ibid*:65). Symbolic expressions simplify the universe to a comprehensible level, and thereby allow for expansion of the range of human perceptions by enlarging the channels of cognitive discourse. It is a paradox of the human condition that we can only reintegrate with nature through the very process that separates us from nature: abstract thought.

Experience moves from sensory and spontaneous to rational and reflective (Margenau 1950:54-74). Between perception and fully abstract concepts (cognition) there is a continuum along which different types of conceptualizations, with varying degrees of abstraction, can be found (Gallus 1977:384). Cognition and perception are our nexus to the universe; through aesthetic expressions like finger markings, their linking capabilities can be increased, thereby expanding our knowledge of nature.

Finger flutings illustrate an attempt to understand the world by entering into it and viewing it from the inside. People become creative when they discover and express a unity between things that they previously were not aware of. Through creativity emerges understanding. It has been suggested that there is a physiological need in living matter to create (Bronowski 1977:16), and symboling, as an order finding process, is a characteristically human creative activity. It structures human experience and perceptions: through creation and recreation, humans explore their relationship with the world.

Finger markings create meaning and they contain meaning. They are at once exploratory and explanatory. The human mind strives to create an integrated and secure reality. The notion that there is an objective reality, and the search for a means of firmly locating human action within that reality, may be a fundamental essence of the finger markings.

Human thought processes are enhanced by images and actions. The process of marking entailed awareness of 'self' and 'other', and viewing the markings entailed reflecting and contemplation. The process, as well as the result, provided — and still provides — insight

into the human condition. Finger lines, like language, may have been employed to discover and convey new information about the environment and the human position within it. Through this discursive, semiotic process, relationships unfold and new meanings are created. The symboling process of creating and reflecting upon digital flutings involved manipulation (of malleable natural surfaces), projection (of 'self' onto 'other'), and transcendence (of the conceived limitations of a human/nature dichotomy).

The artificial human markings are so well integrated into the geography of the caves that until they are acutely inspected they appear to be of geological or non-human animal origin. Given their appearance and parietal context, the designs seem to be at a crossroads between what is natural and what is made, to be as much discovered as made. Examples of topographical congruence, in which finger flutings follow features of the cave walls and ceilings, suggest that the *cave* is as much a part of the total cognitive expressions as the digital markings.

Finger flutings, then, are intimately integrated into the site. They are *part of the cave*, and they thus related the makers to the environment in a ritualized and permanent way. They provided cement for a relationship that may have otherwise been perceived as tenuous. Panels of finger flutings, as modified natural objects, are tangible expressions of both the natural and human processes of creation. The markings metaphorically linked the given with the created, and transformed opposition into connection. They helped to solve the puzzle of human separation and concurrent integration with nature.

The process of Pleistocene excursions into caves undoubtedly would have been highly evocative; indeed, such excursions still are. The caves are cool, dark, and silent, yet they are acoustically pregnant. They are still, yet they are dynamic. They are unfamiliar and dangerous. Entering a cave is like venturing into your own reflective and reflexive cerebral chambers. It invites introspection and reflection just as it invites further exploration. Caves are seductive and induce melancholy and exuberance concurrently. They are mysterious and other-worldly, yet they are palpable and reified. They constitute a boundary between the lived world and the underworld. Related metaphorically to the orifices of the body, caves have special significance in many mythologies. They mix the known with the unknown and the internal with external. By doing so, they transcend dichotomies.

Entering a cave is being immersed in that which is completely external and separate from the self, while concurrently venturing into the recesses of one's own mind. To enter a cave is to return to one's primary thought; that is, to exist without subject/object separation in a world where symbol and symbolized are the same. To then massage the parietal surface is to simultaneously acknowledge, deny, and rectify this primary experience. It entails a developmental transformation of 'self' from being 'part of' to being 'separate from' to ultimately being 'integrated with'.

Entering a cave is a poetic and symbolic act through which one can call into consciousness the internal structure of the Earth and fuse it with one's own structure. Even putting aside the birth-canal connection, emerging from a cave is like being reborn. You rejoice in the open space and light. You have been challenged, and you bring with you a new perspective that grew out of your success in coping with the unknown. You treasure your existence.

Space is a deeply felt feature of experience. Through recognition of the special qualities of an area, mundane 'space' is transformed into 'place', defined as a center of meaning or a focus of human emotional attachment (cf. Hodder 1988:140). A place is not a reified collection of empirically observable objects, but rather is a repository of meaning (Entrikin 1976:626). Interaction with natural places gives a person an organic sense of identity and security. The cool, dark underground chamber, combined with highly charged free-flowing images, constituted a place of meaningful experience.

Our senses provide a direct means of locating experience and gaining knowledge of the world. *Haptic perception*, involving the whole body as a sense organ, provides context for human action. Through the haptic sense, "the body feels the articulations of shapes and surfaces in the world by means of its own inner articulations" (Wolter 1988:134). The holism of haptic perception merges being and experience.

## Conclusion

*Homo sapiens'* uniqueness partially lies in our command of cognitive knowledge. This very capacity, however, also inhibits our unselfconscious integration with the natural world. Cognition must somehow overcome or transcend this limitation before it can be employed to reintegrate humans with the environment. Finger lines as cognitive tools, were employed as a Pleistocene solution to the perceived gap between the human order and the non-human order. Digital flutings may have functioned in much the same way as totemic systems function in contemporary tribal societies, in which order and design evident in the wild is expressed through totemic organization. Through this totemic structuring, groups are able to bind themselves to the patterned existence of the natural world. What can be learned from the natural world is far greater than human social knowledge, and this is why nature is the best model for social organization (Shepard 1973:142).

The digital flutings illustrate a developing theory of reality. Theories search for unity, for connections between hitherto unconnected entities. According to J. Bronowski (1977:101),"We want to feel that the world can be understood as a unity, and that the rational mind can find ways of looking at it that are simple, new, and powerful exactly because they unify it." Finger lines satisfy these conditions by providing insight through participation. They signal an expanding awareness of human existence in relation to the universe, and they constitute evidence of a paradigmatic shift in the Pleistocene concept of reality.

The finger markings are artifacts of neither pure art nor pure science, *but are artifacts of contemplation in the quest for unity*. They exemplify the physical and psychological unity between the 'self' and the 'other'. Cultural symbols constitute a metasocial commentary. The production of finger flutings was one way that Pleistocene humans expressed and understood themselves. Through symbolic activity like the making and viewing of finger lines, Paleolithic humans formed and discovered a cosmology; they succinctly and symbolically defined their place within the natural world.

Digital flutings are imaginative and tactile externalizations built out of social and organic materials. They express affective ties between humans and the existential environment. The flutings are illustrative of a relationship between *Homo sapiens* and nature, and they capture a stage of human externalization and symbol behavior.

*Homo sapiens'* drive to make sense out of experience is as real and pressing as the more familiar biological needs. Finger lines, by fusing the physical manifestation of a manipulated environment (the cave), with a worldview (cognition), gave social values what they needed to be coercive: the appearance of objectivity. On a hermeneutical level, the finger flutings can be read as a text; a window onto past cultures. From a post-structural perspective, the flutings record an essential discourse which took place between Pleistocene humans and the land.

Meaning is stored in symbols. The power of a symbol rests in its comprehensiveness and its fruitfulness in ordering experience. If dense concentrations of symbols are any indication of their power, then finger lines located in the dark recesses of caves were very powerful symbols indeed in Pleistocene Australia and Europe.

It is the *ideas* that the symbols externalize that reshaped the world. The markings helped to form, in a concrete as well as a conceptual way, an idea of the way the cosmos is structured. Through manipulative influence over the environment, Pleistocene humans modeled the world to suit their unfolding view of it. Much like modern scientists who massage their data to better suit their theoretical framework, Pleistocene peoples massaged aspects of the external environment to better fit their developing worldview.

Finger flutings express evidence of a solution to a problem. Any solution -points to the existence of some problem to which there have been other solutions (Kubler 1962:33). As the solutions accumulate, the problem alters; nonetheless the chain of solutions discloses the problem. From finger flutings to totemism to landing on the moon, we witness *Homo sapiens'* attempt to confirm a secure position in the universe by articulating more clearly just where and how we belong.

The making of finger flutings — indeed the *employment* of flutings — necessitated an analysis of the human situation, and was a symbolic answer to its dilemmas. Finger flutings provided a nexus between what is concrete (the external world) and what is abstract (the human condition).

Finger fluting provided information on, and confirmation of, a theory of reality that proclaimed a deep and lasting kinship with the organic world. The markings represent, perhaps, a quantum leap in *Homo sapiens'* expanding penchant for abstract thinking and manipulation of the environment. As primal markings they may have been more exploratory than communicatory, and served as precursors to other expressions of new, developing thoughts (Faulstich 1986: 161). Through them, the interdependent relationship of humans to the environment was expressed in concrete visual form.

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