



**CALIBRATING VS. IDEATING REALITY:
A COGNITIVE ASSESSMENT OF
PALEOLITHIC ABSTRACTIONS AND ILLUSTRATIONS**

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— **Synopsis** —

Hominin cranial capacity grew in a relatively steady manner during the Lower and Middle Paleolithic (L/MP), with two spurts at approximately 600,000 and 150,000 years ago. Controlled vocalizations, orchestrated mimetic techniques, deductive tracking skills and the ability for exogrammatic information storage were the main cognitive developments that can confidently be assigned to these punctuations. Here, ‘exograms’ are tentatively defined as memory traces stored outside the brain as consciously-sequenced information packages meant to stabilize causal calibrations of reality, in time and space. Although the skill to produce such information packages is a biological development, the transmission of exogrammatic meaning becomes culturally-conditioned. Resorting to communal ritual techniques derives from the necessity to re-iterate, share and experience analytically- or analogically-calibrated constructs of reality, which become ‘manifested’ only when behold from the perspective of a synchronized, causally-specific and consequent ‘state of consciousness.’ The adaptive advantage of analytically-calibrated perception lies in its potentiality to learn/transmit, deduct, predict and ‘outwit’ animal and conspecific behavior and environmental change, based on cost-effective indexical referencing. Moreover, the technique frees up expensive neural storage place needed for ongoing associative processing. As all the cognitive aptitudes listed above were in place long before the Aurignacian, the Upper Paleolithic (UP) cultural ‘revolution’—unlike the L/MP cognitive transition(s)—cannot be directly attributed to a change in the size or shape of the cranium but, as I suggest, the hallmark of the period was an accelerated specialization to deterministically-predictable cultural niches that became established and ratcheted in unreliable natural environments. By adapting to their calibrated models of reality—and cognitively/behaviorally specializing to its standardized causal order—archaic populations underwent rapid transformations in the shape of the cranium and a decrease in brain size, which are typical signs of the ‘domestication syndrome.’ The suddenness of the process was largely due to hominin neotenus propensities. Such punctuated physiological changes were likely accompanied by detrimental psychological side-effects. I hypothesize that ‘creative explosions’ during the UP were regional developments which attempted to counter certain cognitive losses inherent in cumulative cultural evolution and incipient self-domestication. While L/MP paleoart seems to have accompanied a biologically-developed aptitude for both analytical and analogical sequencing, UP ‘art’ was apparently restricted to creativity, which is a culturally-acquired technique that facilitates a partial dissolution of the rigid causalities that govern elaborate cultural niches. Creativity assembles ideated information packages based on alternative—but already stylistically-tainted—associative possibilities in the re-sequencing of

memory traces. As the predominantly abstract patterns of L/MP paleoart—through the far-from-incipient skills of Neanderthals/archaic Aurignacians—were superseded by the spectacular figurative representations of gracile Solutréans/Magdalenians, communal ritual also seems to have become a solitary endeavor performed by ‘creative’ ritual specialists. While L/MP paleoart documents the universal emergence and adoption of a species-specific objective state of consciousness, isolated UP art-like manifestations illustrate an obsession with cultural techniques devised to escape the consequences of cognitive specialization by experimenting with subjective states of consciousness which, in their turn, allow for ideated perceptions of reality. Unfortunately, the compensatory experiments of our UP forefathers are interpreted as the sudden advent of fully-mobilized symbolic thought. The archaeological record, however, documents both L/MP examples of iconic understanding and UP instances of abstract representation, which means that the relationship between them is rather complementary than linear. By the same token, the anthropological literature mentions cultures that favor ‘meaningful’ abstract patterns over ‘childish’ iconic illustrations, but also instances in which there is a balanced and simultaneous use of both. In conclusion, cultural preferences for convergent or divergent mental approaches to reality cannot serve as viable definitions of cognitive modernity. Any encompassing definition should stress on the ability to shift the contextual focus between analytical and analogical modes of cognition at will, in both directions and last, but not least, to the full operational range (*Spielraum*). The UP ‘change of style’ from abstract to pictorial points to a blockage of associative abilities in the ‘creativity mode,’ which is only a low gradation on the operational range of divergent mental perception. Conversely, the operational range of convergent thought became culturally-extended, as a consequence of tens of millennia of cumulative cognitive specialization.