

Notes on Spoken Early Acheulian (EA_{PL}): Semantic Field and Correspondences to Cognitive Operations in Biface Technology

Harrod (2002a) hypothesizes that Early Acheulian bifaces reflect a distinctive mental template and could have been used to express the paradigmatic, archetypal idea (or ‘meme’) of the Early Acheulian mind and spirit:

‘renewal, re-presencing, restoration, and reparation of the core sustenance, of its wholeness as an orientatio of the core, upright and balanced, with an internal, inward reference point, arrived at through establishing symmetry, a mirror symmetry of similar or mirror opposite shapes and acknowledging and working with the residue of the irreparable.’

Based on studies of Mary LeCron Foster, a reconstruction of spoken Early Acheulian is possible. Remarkably all of the hypothesized themes for the Early Acheulian archetype of spirit have corresponding roots in the Early Acheulian lexicon. It appears that the Early Acheulians did indeed have the linguistic capacity to articulate in spoken language the full spiritual thematics that I have proposed. This striking correspondence is further confirmation of the validity of my decoding.

Note A. Once I discovered this reconstruction of the Early Acheulian semantic field, it suggested that I delete one hypothesized theme—namely, ‘circumabulation of the core’—the spoken articulation of which would appear to require a *w phememe. A *w phememe and its corresponding theme are most likely for the Middle Acheulian. I also realized that an Early Acheulian concept for ‘wholeness’ was also not likely, as it would require a *w or *w-y, which, again, would seem to not have arisen until the Middle Acheulian.

To reconstruct Early Acheulian, I draw on the corpus of Foster’s semantic reconstructions (1996, 1994, 1992, 1990a, 1990b, 1986, 1983, 1981, 1980, 1978) for each phememe with additions and modifications as noted. As Foster hypothesizes (1996) Oldowan spoken language had two basic ‘phememes’ *T and *M; the splitting of allophemes occurred during the Early Acheulian period yielding *t, *p, *m and *n. While Foster (1996) appears to assign to the Middle Paleolithic the timing of reduplication of phememes, combinations and permutations of phememes, I have argued (Harrod 2003c) that these features first arose with the Oldowan protolanguage. Following this procedure, the Later Acheulian semantic field (or root lexicon) would look something like Table 1. In this table I list out all the possible 2-phememe root combinations that can be generated from the four basic Early Acheulian phememes. There are six possible combinations; to each I add its reversal.

Table 1: Reconstructed Semantic Field of Early Acheulian

(After Mary LeCron Foster with modifications and additions shown in red from Watkins 2000 (W); Greenberg 2002 (Eurasianic), 1987 (Amerind); Faulkner 1999 (Egyptian); Klein 1987 (Hebrew); Bengsten and Ruhlen 1994 (Global))

***T** = cut or enter and go forward, cutting or entering, going, contact, placement, point, thrust, outward movement, forward, linear; give; erection, copulation; strike, kill, butcher; flake a tool; to father, male

***t** = (intrusive) movement toward (spatial or temporal), intrude, strike against, through, cut, enter, penetrate; contact, precise placement; throw (at); point, deictic (this, that, there), when, since, beyond; (butcher, tool manufacture, copulate); [Eurasianic, Amerind: make, work, put, place, cause, build, do]

***p** = (protrusive) protrude, project, projection, extending outward from; movement from, away from, outward thrust, going forward, going; separate from; (penis erection, pointing, killing, stone as weapon, fire); [PIE (W): *op- = choose, option, work, produce; *apo- = oppose][Egyp: hieroglyph for 'p' is rectangle meaning 'seat, solid support, base for statue, a stone'; 'b' hieroglyph a foot]

***p-t** = (protrusive-intrusive) to move, put through, between; intervene, interpose; throw, fly; fall, widen; indent, penetrate, imprint, dig a canal, dam, sluice; rip, cleft, fissure, slit, gap, space between; weaken, soften; conceal, hide, cover, deny; [Eurasianic: spread out, be open, extend, reach to, field, ground, floor area, bottom][PIE (W) *bhudu = bottom, base, abyss][Egyp: ptpt = tread (roads), trample]

***t-p** = (intrusive-protrusive) to move, put through or between; intervene, interpose; intrude; deviate, err, grope about; hot; [Eurasianic: hit, strike, trample, hit with feet, kill, destroy, walk, stamp, press][PIE (W) *dap- < *da(i) = divide, part < A.S. top] [Egyp: tp = head, chief, tip, best of, head of, in front of, before, upon, financial principal; tp- = principal, first, beginning]

***t-n** = (intrusive-interpositive) stretch, pull, extend, lengthen, increase in size, endure; [Eurasianic: know, think, feel, love; learn, become accustomed to; count, recite, read, witness; ask, request; plan, intend] [Egyp: told age, old man, elder; turn aside, go astray, deflect (of balance), be confused (of roads)] [Heb: in words for 'teach, learn, recite, repeat by rote, rehearse, recapitulate, stipulate or set conditions']

***n-t** = (interpositive-intrusive) long, become tall, perpendicularity [Egyp: in words for 'custom, routine, rite, ritual, duty, organize; god, goddess, divinity, divine, sacred, magic][Heb: in words for 'path, trace the way, track, road'; 'give, grant, deliver, permit, appoint'; 'pour out, sprinkle, splash; 'spring, start up']

***t-m** = (intrusive-bilateral) cut, chew, separate, distinguish, break, take pieces off, chip, half, winnow, sift, suffer, grow thin, fade, droop, tired, faint, wither, be in trouble, emaciated, perish; [Eurasianic: eat, taste, munch, swallow, chew, eat, lick meal, feast, food; lose, cease; be lost, lose one's way, make a mistake][Egyp: perish, cease, close; be complete, entire, the universe, its creator]

***m-t** = (bilateral-intrusive) contact with shared or common between opposite sides; or with a shape of joinedness emergent out of a middle, womb-like central, shared source; shared meal, equitable division; measure, symmetry, proportion; [Eurasianic: to measure, measure by hand spans; to think, believe, know, feel, perceive, sign, token, intelligent, skillful; to meet, approach, greet, receive] [Amerind: chest, breast, navel, belly][Grk: Metis] [Egyp: justice, righteousness, truth, healing; likeness; adding 'y' yields sense of 'comparison, congruity, conformity or similarity'] [Dravid: fertile, rich, fruitful, elation, beauty]

***p-n** = (protrusive-interpositive) feed, food, nourishment, female, dwelling, breasts, eat; [Eurasianic: child, hatch, born; raise, educate a child, place of birth, daughter; bone, shin, shank, knee bone; red pigment, coloring powder, red clay, dust, ashes][Heb: in words for 'son, offspring, branch, shoot'; 'build, construct, create, bring forth'; 'form, kind, species']

***n-p** = (interpositive-protrusive) to eat; [Heb: 'np' roots in words for 'blow, breath, breath of life, soul, spirit, living creature'; 'fall, be cast down, throw, overthrow, defeat'; 'shatter, scatter, disperse, beat,

dash to pieces, destroy’][Heb: ‘nb’ roots in words for ‘call, proclaim, announce, speak, prophecy’; ‘sprout, germinate, bud, well up, gush out, bubble up, stream forth, shine’; ‘foolish, despised, wretched, polluted, dirty’][Egyptian ‘nb’ in words for ‘lord, master, owner, possessor, master of craft, mistress, goddess, lordship, authority of a king’; ‘any, every, all, each one, anything, everything’][Eurasianic: cloud, mist, fog, cloud, sky; that is, perhaps, signifying ‘moisture obscuring earth, source of life’]

***p-m** = (protrusive/projective-bilateral) (?) to issue forth from between, carry forth (a *p = globularity, base, basis of forward thrust) Neither in PIE nor Egyptian, but see Grk *pempo* = to send forth, send off, send away, send home, dismiss; procession, march (i.e., a protrusive movement within bilaterality); *pompe* = a sending, guidance, conduct, procession; pompos = guide, messenger; *pomphos* = bubble, blister; Ltn *pompa* = solemn procession, pomp, fancy; *pom-* fruit, orchard, fruit bearing, abounding in fruit; PIE (W): *prem- = strike, press; pregnant, pressure, impress, imprint; Dravid: breast, udder; wealth, gold, ornament, bangle, decoration, abundance, bangle, female genitals, adorn, beautify
***m-p** = (bilateral-protrusive/projective) [? PIE *mbhi-, +ambho- = from both side][Dravid: overcast, cloudy, dull, ignorant, stupid]

***n-m** = (interpositive-bilateral) take, share; have, carry; further, then, also; name, quality; long for, desire intensely; = to distribute, assign a share, divide up and allot a resource; [PIE (W) in words for ‘grasp, learn, understand, number, division, usage, portion’; ‘to deal out, distribute, apportion, assign, allot’; ‘to possess, have use of, enjoy; dwell in, inhabit’; ‘hold, possess’; ‘manage, control’; ‘esteem, consider’; t’o pasture, drive to pasture, graze; to eat, feed on’][Eurasianic, with various vowels: name; one’s beloved, esteemed person; pray, worship; hold a festival, perform memorial rites; give, gift; sell, present][Egyptian: who?; go wrong way (of plans), rob, steal]

***m-n** = (bilateral-interpositive) mental activity, think, mindful, remember, remind, warn; sight, be pleased, glad, lose consciousness, sleep, confusion of mind; [Eurasianic: think, say; see, understand, desire; admonish, urge, exhort, scold, command; learn, try; strive][Eurasianic: heart, breast, bosom, chest, belly, lap][Eurasianic: man; person, husband, wife; self-name, daughter-in-law, woman] [PIE (W): *men-4 = small, isolated, alone, single, sole; cf. *mē-1 = me, myself, my, mine)] [Egyp: in; be firm, established, enduring, fixed, remain][Egyp: Min = phallic deity][Dravid: unite, fix, marry, sexual intercourse; create, shape, beautify, decorate; wash, cleanse, anoint; shine, brilliance][Global: mena = to think (about), know, understand, say, command, pray, request, scold, name, like, love, dream, wish, desire, prefer, try, test, be hungry, seek; mana = stay (in a place), stand, remain, be settled, to be, live, exist, be durable, remain long, be firm, strong, loyal; house, home, dwelling, place, set up, sit, rest; mano = person, man, woman, husband, wife, people, kin, father, father-in-law; mi(n) = interrogative, what?]

***m** = (bilateral) to bound, boundedness, betweenness, containment between, issuance from between two surfaces, bordering; often ‘contained moisture’ (as of dampness of mouth, vagina); in middle, in midst of; relate to, be attach to, reach, desire, love, interrelationship; me, my, mine, more; take, grasp, mouth as grasper, eat, suckle; likeness; coactive, interactive, social intercourse; join, unite, fit together; borrow, sell (i.e., exchange, obligate); produce, result, cultivate, nurture, manifest; abide, dwell, in, shelter; [Eurasianic: mim = flesh, meat, fruit, body, person; ima = suck, breast, drink, nipple, swallow, nurse a baby, suck the breast, milk, suckle]

***n** = (interpositive) to be bounded, in, inside, between; move into, enter; intimate innerness, centrality; internal, interior, house, woman’s apartment of palace, belonging to; private parts; to understand; to reject, negate; (temporal) on account of, while, as long as, because, since, belongs to; (pregnancy, gestation, hearth, nurtured, mothered, blood) [Eurasianic: na = become, be born, bear, create, make, do, be new, fresh, young, grow, start growing up (seed), be conceived, spring out (plant)]

***M** = nurture and be nurtured, gestate and be gestated, contain and be contained, rounded, fullness, pleasure, sexual satisfaction; join, unite, be coactive with, interrelate; grasp; make one’s own, make interior, inwardness; mothering, female

Note B. I have added several phememe combinations not distinguished in the Foster references and also added some etymological material. These tentative additions are indicated in red text in the table. I have also noted the pheneme fusions *T and *M which frame the field and which might be considered a linguistic reminiscence in the structural unconscious of the evolving hominid mind. In Foster (1978) roots are presented in CVC (consonant-vowel-consonant) form with a universal vowel /e/. Foster (1996) surmises that the first vowel did not arise until about the Middle Paleolithic. I have denoted simply a hyphen between phememes. Perhaps there was simply a gap in articulation or perhaps the non-phememe, ‘uhmm’.

Note C. Even if the full differentiation of two-phememe combinations and their permutative reversals were only in a vague mosaic evolution at this time period, I would argue that the whole semantic field with its permutations is implicit. It is at least implicit enough in the semiotic field to match on a one-to-one basis the semantics of the Early Acheulian tool technology and its symbolic themes.

The playful symmetries and anti-symmetries evident in Early Acheulian bifaces appear to have also occurred with respect to Early Acheulian protolanguage. For here too we see in the allophemic splitting of *T and *M a playful exuberance in the combination and reversal permutations of *t, *p, *m and *n.

Note D. As Wynn (1989:58-61) observes the Early Acheulians were adept at the cognitive operations of ‘reversal’ and ‘mirror symmetry’, and ‘the mirroring of one shape across a midline’. Notions of reversal symmetry and mirror symmetry also imply notions of similarity of shape and opposition of shape.

I indicate some of the correspondences between the semantic field of Early Acheulian protolanguage and the cognitive operators and psychospiritual principles at work in Early Acheulian stone tool technology in Table 2.

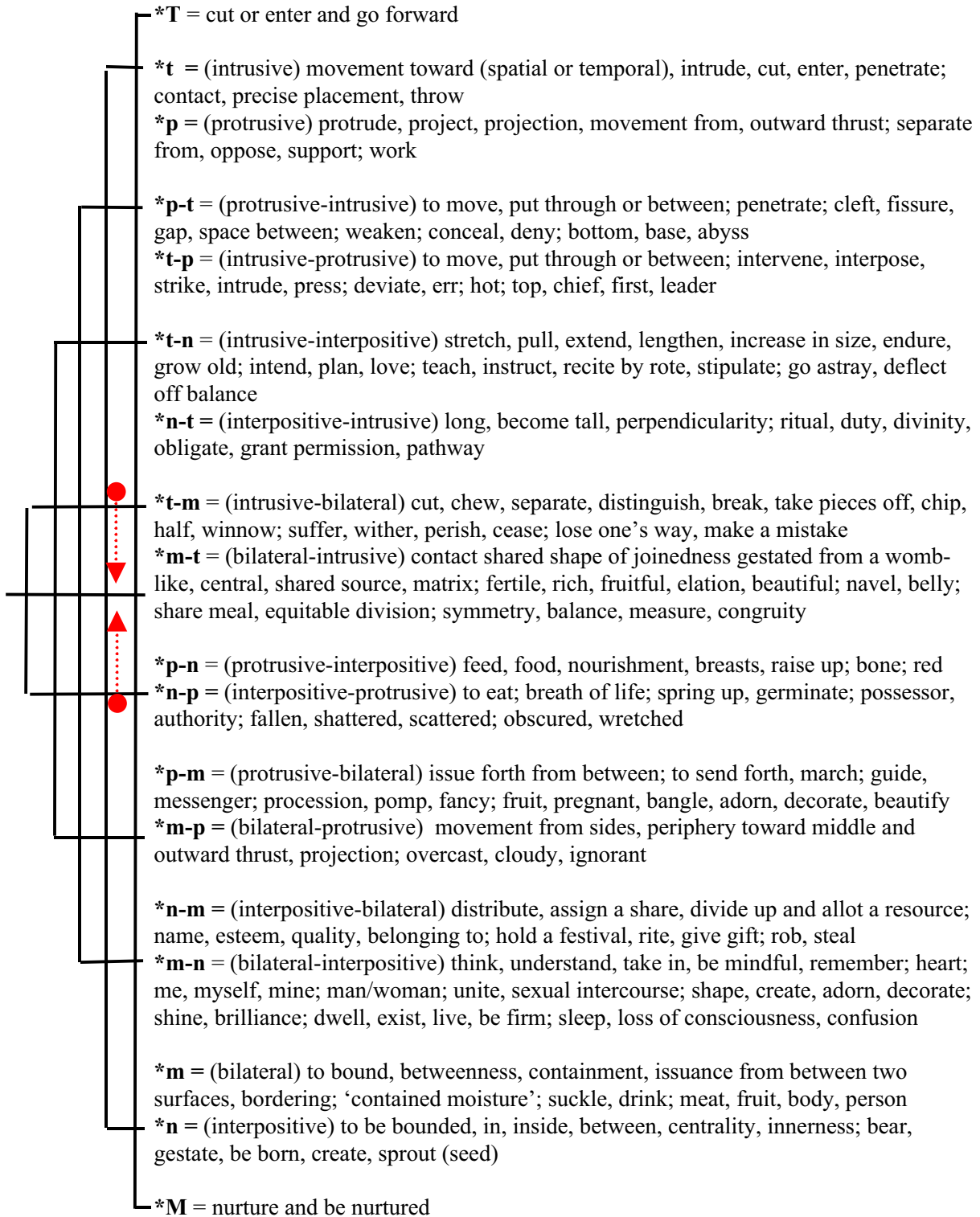
With the reconstruction of Early Acheulian PL we see that the root designating pomp and fancy is a totally appropriate characterization of the Early Acheulian bifaces. They have the feel of solemn pomp and fancy or *p-m/*m-p; and they have the feel of alternate thinning, *t-m, and widening, *p-t, or increasing in size, *t-n, so that the final result is something that has been, so to speak, through art increased in size, *t-n, something big.

Table 2: Early Acheulian Tool and Protolanguage Correspondences

Early Acheulian Cognitive Operators	PL_{EA} phememe	Semantics
renewal, reparation of the core	syntactic movement from *t-m to *m-t	from ‘chip, separate, wither, perish’ to ‘gestation of symmetry, equity’
orientation: top/bottom, left/right	*t-p	top, tip, head
	*p, *p-t	base, solid support stone (aka. anvil); bottom
	*n-t, *t-n	perpendicularity, tall; stretch, extend
constant interval or quantity of space with respect to internal central point or midline	*m	to bound, betweenness, in middle; take, distribute, measure out; likeness
	*n	to be bounded, in, inside, between, centrality
	*n-m	allot, assign a share or division
	*m-n	think, be mindful, remember; adorn, decorate, beautify
2-dimensional shape with opposite shape elements: (side) curve/point, projection/concavity; (edge) angular; curvilinear, natural/trimmed	*t vs. *p	intrusive vs. protrusive
	*t-m vs. *m-p	bilateral cut, chip vs. bilateral protuberance; pregnant, fruit
Residue, flaw, ultimate imperfection	*t-m	piece, chip broken off, suffer, lost, make a mistake
Symmetry = mirror of one shape across a midline; mirror symmetry of mirror opposites (≠ bilateral symmetry)	*m-t	contact with shared, common feature of opposite sides, differential features; gestated shape of symmetry, measure, balance, equity, healing
Artifact as a whole = constant interval+symmetry	*p-m	protrusive movement within overall bilaterality = pomp, fancy, fruit, abundance, beauty, adorn
Core = (metaphorically) core sustenance	syntactic movement from *n-p to *p-n	from ‘shattered, obscured’ to ‘feed, nourish, breasts, bone, red’

While by and large each of the Early Acheulian cognitive operators at work in the tools directly matches up to or is, so to speak, nameable in spoken Early Acheulian, the two most important from a spiritual or religious point of view seem to be more complex. Where in the proposed semantic field is ‘renewal, restoration, reparation of the core sustenance’? Such a notion seems too sophisticated for the available phememic lexicon. But consider the symmetrical ring structure of the semantic field as follows.

Table 3: Early Acheulian Semantic Field: Ring Structure



With respect to this ring structure each of the three rings consist of all four of the basic Early Acheulian phememes, *t, *p, *m and *n. Thus there are three distinct possible recombinant sets of the four basic phememes.

The first set—the central ring—includes *t-m/*m-t and *p-n/*n-p. These four roots are, so to speak, at the heart of the Early Acheulian semantic field.

- | | | |
|---|---|--|
| { | { | *t-m = (intrusive-bilateral) cut, chew, separate, distinguish, break, take pieces off, chip, half, winnow; suffer, wither, perish, cease; lose one's way, make a mistake |
| | | *m-t = (bilateral- intrusive) contact shared shape of joinedness gestated from a womb-like, central, shared source, matrix; fertile, rich, fruitful, elation, beautiful; navel, belly; share meal, equitable division; symmetry, balance, measure, congruity |
| | { | *p-n = (protrusive-interpositive) feed, food, nourishment, breasts, raise up; bone; red ochre |
| | | *n-p = (interpositive-protrusive) to eat; breath of life; spring up, germinate; possessor, authority; fallen, shattered, scattered; obscured, wretched |

Each pair contains a negation and the reversal of each pair might be thought of as capable of articulating a potential movement from the negative aspect to the positive in the reversed term. On the one hand, there appears to be a movement from ‘making a mistake, being lost, weakness, suffering, and death’ to ‘contact with a shape of measured symmetry and equity gestated from a central womb-matrix’. On the other hand, there is a movement from ‘shatteredness and obscuration’ to a ‘nourishing, refreshing, germinating breath of life, a spring of creative authority, coming into possession of the source of life, like red marrow within the bone’.

These themes are reminiscent of the Oldowan symbolics of accessing the ‘sustaining and nourishing core essence’. The Early Acheulian thematics seems to build upon the Oldowan thematics differentiating and amplifying it.

First evidence for red ochre use in prehistory is Early Acheulian, Olduvai Gorge BK, 1.1 to 1.4 million years ago.

Both processes are complementarity or mirror symmetrical. Together they imply an equitable division of nourishment and the sources of life and growth both in the outward or everyday world and in the inward or spiritual world. In either movement, these roots are concerned with the ultimate and most fundamental feeling-toned values of human existence and the human condition. Here is an incipient language—the first human language—for aesthetic beauty and social justice and their primordial sources in the human ‘soul or spirit’.

Many other levels of signification are implicit in these basic EA_{PL} roots. For now I am focusing on the feeling values implicit in each semantic field. To emphasize the point: each semantic field appears to deal with values; the positive theme evokes its negation.

The Early Acheulian sensibility seems to view the human ‘quality’ (soul, spirit, life, etc.) as doubled or even fourfold. This human quality is characterized as the ‘breath, the breath of life, invigorating and germinating’ and also as something like the ‘red, nutrient rich, marrow of a bone that sustains life’. It is also characterized as a kind of ‘frail or fragile balancing, orienting itself on the way’ and as a consciously ‘gestated measured symmetry and proportion’.

The second recombination set of the four Early Acheulian phemes—the next concentric ring—consists of *t-n/*n-t and *p-m/*m-p.

{	{	*t-n = (intrusive-interpositive) stretch, pull, extend, lengthen, increase in size, endure, grow old; intend, plan, love; teach, instruct, recite by rote, stipulate; go astray, deflect off balance
		*n-t = (interpositive-intrusive) long, become tall, perpendicularity; ritual, duty, divinity, obligate, grant permission, pathway
	{	*p-m = (protrusive-bilateral) issue forth from between; to send forth, march; guide, messenger; procession, pomp, fancy; fruit, pregnant, bangle, adorn, decorate, beautify
	{	*m-p = (bilateral-protrusive) movement from sides, periphery toward middle and outward thrust, projection; overcast, cloudy, ignorant

The root *t-n, with its stress on *t, appears to signify ‘putting-in that which intends or extends (something)’, while *n-t, with its stress on *n, appears to signify ‘an inner obligation, permission, or cause that extends or intends (something)’. Even a ‘path’ or ‘pathway’ is something that both ‘obligates’, as one is constrained to the path, and ‘permits’, as one is permitted to move along or extend oneself along the pathway. Similarly, the maturation process, which results in ‘growing old’, fulfils a telos, that may be considered ‘put-in’ to that which grows old as a kind of fate or destiny (life-plan, template, blueprint, stipulation, condition, etc.). Further, in this semantic field the incipient notion of ‘divinity’ (‘god’, ‘goddess’, ‘sacred’, etc.) is characterized as a kind of ‘spontaneous authority’ that obligates and permits. This would appear to be the Early Acheulian sense of the ‘god within’ (conscience, the source and legislator of values, etc). Further, the negation of this value is characterized as ‘going astray, being deflected off balance.’ Such may happen simply by the force of routine, simply following directions or instructions, which is a kind of growing old before one’s time. In this logic, mastering a routine is the opposite of that divine spontaneous authority that obligates and permits. Thus, between *t-n and *n-t there appears to be a negation and reversal movement. There is a movement from ‘growing old, simply following instructions, and being deflected, thrown off balance, and going astray’ to ‘standing upright in relation to one’s own divinity, one’s spontaneous authority to obligate and permit, that is, to generate one’s innate values and one’s way in life’.

The two complementary semes—‘perpendicular uprightness’ and ‘magnification in size’—might be construed in gender terms, male versus female respectively. Establishment of ‘perpendicular uprightness’ is a ubiquitous motif in male initiation rites; ‘magnification in size’ is a ubiquitous motif of female initiation rites. But to do so risks a *sapiens sapiens* projection of gender roles upon the past. I prefer to keep the matter open.

The *t-n/*n-t thematics is complementarity to the thematics of *p-m and *m-p. The gesture form of the root *p-m is a protrusive, projective, outward movement, outward from a

bilaterality. The semantic survivals suggest significations of ‘pomp and fancy’, ‘adornment and decoration’ and ‘pregnant fruiting abundance’. ‘Marching, guiding, processing’ along a way also is an outward movement on a bilateral way, projecting power and pomp. The reversal *m-p harbors the negation, in this case, ‘overcast, cloudy, dull, dim, ignorant’—a negative protrusive element between the bilaterality of sky and earth and by analogy the frame of the mind.

From the perspective of values, the permutation-negation pair implies a movement from negative to positive. In this case it is a movement from ‘overcast dullness’ to a bright ‘colorful, fanciful display or show of colors’. This is a decorative, adorning, beautifying transformation. Perhaps not coincidentally it is precisely what is revealed by operative nature of Early Acheulian bifaces: they express abundance, playfulness, showy expertise, in short, fanciful pomp. To consider them merely ‘decorative’ or ‘art for art’s sake’ is to miss ‘what art for art’s sake’ really means. It is this free flowing abundance and playfulness, this adornment and sense of aesthetic beauty . . . which is also like a joyful expectation, a extending pregnancy, multiple pregnancies. This is how the bifaces are worked, as I have suggested (Harrod 2002a). In the decorative and art’s for art sake, I see the ‘for the sake of itself’, the essential thrust of the ‘non-utilitarian’ as ‘for its own sake’, a *joie de vivre*, a *jouissance*, and one that is grounded in the sexual instinct and sexual display.

Considering the full four-phememe recombination set, it has complementary value-movements. On the one hand there is a movement from ‘overcast dullness’ to ‘fanciful pomp’ for its own sake and as symbolic of life’s sexual display instinct which is also for its own sake—for art’s sake—as well as its reproductive purpose. On the other, there is a movement from ‘growing old, simply following instructions, and being deflected, thrown off balance, and going astray’ to ‘standing upright in relation to one’s own divinity, one’s spontaneous authority to obligate and permit, that is, to generate one’s innate values and one’s way in life.’ The doubled movements are complementary. They generate a spontaneous, inner-directed, upright sense of authority and values and a joy in displaying fanciful, colorful abundance for its own sake. The Early Acheulian artisan expressed just this joy.

Finally, the third recombination set of our proposed four Early Acheulian phememes—the next concentric ring—consists of *p-t/*t-p and *n-m/*m-n. The reconstructed semantic field appears to be something like this:

- | | | |
|---|---|---|
| { | { | *p-t = (protrusive-intrusive) to move, put through or between; penetrate; cleft, fissure, gap, space between; weaken; conceal, deny; bottom, base, abyss |
| | | *t-p = (intrusive-protrusive) to move, put through or between; intervene, interpose, strike, intrude, press; deviate, err; hot; top, chief, first, leader |
| { | { | *n-m = (interpositive-bilateral) distribute, assign a share, divide up and allot a resource; name, esteem, quality, belonging to; hold a festival, rite, give gift; rob, steal |
| | | *m-n = (bilateral-interpositive) think, understand, take in, be mindful, remember; heart; me, myself, mine; man/woman; unite, sexual intercourse; shape, create, adorn, decorate; shine, brilliance; dwell, exist, live, be firm; sleep, loss of consciousness, confusion of mind |

As is the case with each of the other two recombinant semantic sets, here also each pair contains its reversal and negation and potential movement from the negative value to the positive. In the first pair, *p-t/*t-p, the root *p-t signifies the making of a gap or fissure with an abyssal quality, while *t-p signifies a movement through that is striking and with an initiating, leading quality.

I am reminded of so many cosmogonic myths that begin with some form of chaos (Grk. chaos = original chaos, empty space, gulf, chasm < chaino = to yawn, gape, open wide) out of which emerges the deity or 'first principle' of self-organization or self-regulation.

Its negation is a covering over of the gap, 'concealing and denying' it, which results in the leadership principle 'weakening, deviating, erring' in its 'movement through'.

In the second pair, *n-m/*m-n, the root *n-m signifies 'to distribute and assign a share or lot in some resource'. This is a movement of the 'innerness' in or into the 'bilateral'. One divides the whole or the common and assigns or gives that which belongs to another, as by innate right or entitlement. 'Take what is yours', what you have a right to receive, your share, what belongs to you, as one's own name belongs to one. In a sense, this is a being given back what already resides in, or belongs to, one. Its negation is theft, robbing oneself of that which inherently belongs to oneself. The reversal of *n-m,*m-n, signifies a movement of the 'bilateral' to (receive) the 'innerness'. This is analogous to and thus can signify mental activity. To think is to take in, grasp, understand, comprehend, and to do so with heart-mind and with a sense of self and self-possession (me, myself, mine) and with a sense of 'being-in' (firm, established, residing-in, i.e., in a mental state of knowing, of secure and established knowledge). The semantic field also suggests that such an act of knowing is analogous to sexual intercourse. It also means to shape, create, adorn, decorate, so as to bring out that which shows itself shining and brilliant. Its negation is 'sleep, loss of consciousness, confusion of mind.'

This Early Acheulian sense of thinking, in terms of contemporary philosophy, is deeply phenomenological, seeking to reveal the phenomena, i.e., that which shows itself in shining forth. As it concerns first principles out of chaos it is deeply ontological. Thus, we are in the realm of 'first philosophy'.

In the mutual differentiation of *n-m/*m-n there is a differentiation of 'yours' and 'mine' and thus an incipient articulation of the dialectic or dialogical awareness of self and other. Each is given its term of respect, its dignity. In this differentiating awareness is the soul of generosity.

To paraphrase Nietzsche, *n-m is the gift-giving virtue.

In the mutual differentiation of the whole recombinant set there is, again, a double movement potential. On the one hand there is a movement from the 'abyss of denial' to 'putting into motion a leading principle'. On the other there is a movement from the 'sleep of unconsciousness' to 'mindfulness of self and other and a giving back to the other of the other's self and innate human right and entitlement'. This is a double perspective on 'core sustaining essence' as, on the one hand, mindfulness/heart and, on the other, that which innately belongs to oneself as one's own name and, on the other, as the first principle that arises out of the chaos of denial, the denial of chaos. This is a framework of 'distribution' that frames the equitable and

proportionate distribution of resources signified by *m-t. An Early Acheulian philosophical ‘first’ principle frames up the issue of equitable distribution of sustenance and social justice.

All of these meanings, at least in an incipient form, that I have suggested for the three recombination sets of *t, *p, *m and *n, are, I believe, implicit in the cognitive operators inherent in the Early Acheulian bifaces. In other words, the bifaces, to greater or lesser extent, appear to have symbolized and played a role in social instruction with respect to the whole series of postulated transformations (‘double movements’). The set of ‘double movements’ is summarized in Table 4.

Table 4: Early Acheulian (EA_{PL}) ‘Spiritual’ Transformation Processes

Phememe Combinatoric Set	Movement From Negative	Movement To Positive
*t-m/*m-t and *p-n/*n-p	‘making a mistake, being lost, weakness, suffering, and death’	‘contact with a shape of measured symmetry and equity gestated from a central womb-matrix’
	‘shatteredness and obscuration’	‘nourishing, refreshing, germinating breath of life, a spring of creative authority, coming into possession of the source of life, like red marrow within the bone’
*t-n/*n-t and *p-m/*m-p	‘growing old, simply following instructions, and being deflected, thrown off balance, and going astray’	‘standing upright in relation to one’s own divinity, one’s spontaneous authority to obligate and permit, that is, to generate one’s innate values and one’s way in life’
	‘overcast dullness’	‘pomp, fancy, fruit, abundance, beauty, adornment – for its own sake’
*p-t/*t-p and *n-m/*m-n	‘abyss of denial’	‘putting into motion a leading principle’
	‘sleep of unconsciousness’	‘mindfulness of self and other and a giving back to the other of the other’s self and innate human right and entitlement’

The mirror symmetrical double movements summarized above correspond very closely to the hypothetical Early Acheulian paradigmatic meme that I proposed based solely on the cognitive operators involved in Early Acheulian biface production. This meme is ‘renewal, restoration, reparation of the core sustenance’. This theme which is not evident directly in any particular PL root could easily have been encoded using syntactic constructs composed of symmetry reversals of phememes and negative/positive.

Further, Early Acheulian PL may have been used to speak of syntagmatic movements across (re)combinatoric sets. For instance, one could speak of a movement from ‘name, quality, allotment’, *n-m, through ‘centering thrust’, *m-p, to ‘solemn pomp, abundant fruitfulness’, *p-m. Conversely, one might speak of a movement from ‘deviation and error’, *t-p, like one lost or at a loss, through ‘endurance and magnification in size (maturation)’, *t-n, to an achieving of ‘uprightness’ (‘tall, perpendicular’, *n-t).

There are probably any number of other such things that could have been said using various combinations and permutations of this protolanguage.

Finally, it must be said, if such semantic and conceptual ‘mirror reversals’ (transformations) could be articulated in spoken Early Acheulian, then that protolanguage had a syntagmatic capacity. It had a proto-syntax. Thus by any definition Early Acheulian (EA_{PL}) was a ‘language’.

Any theory proposing that language as such did not arise until the time of *Homo sapiens sapiens* must now consider this.

References

- Bengtson, J. D. and Ruhlen, M. (1994). Global etymologies. In Ruhlen, M. (ed.) *On the origin of languages: Studies in linguistic taxonomy*: 277-336. Stanford, CA: Stanford University Press.
- Donald, M. (1991). *Origins of the modern mind: Three stages in the evolution of culture and cognition*. Cambridge, MA: Harvard University Press.
- Donald, M. (1993). Précis of Origins of the modern mind: Three stages in the evolution of culture and cognition. *Behavioral and Brain Sciences* 16: 737-791.
- Eliade, M. (1959). *The sacred and the profane: The nature of religion*. New York: Harper and Row.
- Faulkner, R. O. (1999). *A concise dictionary of Middle Egyptian*. Griffith Institute. Oxford: At the University Press.
- Foster, M. L. (1978). The symbolic structure of primordial language. In Washburn, S. L. and McCown, E. R. (eds.) *Human evolution: Biosocial perspectives*. Perspectives on Human Evolution, Vol. IV. Menlo Park, CA: Benjamin/Cummings.
- Foster, M. L. (1980). The growth of symbolism in culture. In M. L. Foster and S. H. Brandes (eds.) *Symbol as sense*. New York: Academic.
- Foster, M. L. (1981). Culture as metaphor: A new look at language and culture in the Pleistocene. *Kroeber Anthropological Society Papers* 59+60:1-12.
- Foster, M. L. (1983). Solving the insoluble: Language genetics today. In de Grolier, E. (ed.) *Glossogenetics: The origin and evolution of language*. New York: Harwood Academic.
- Foster, M. L. (1986). *Iconic abstraction in prehistoric language and signs*. Paper presented at the Annual Meeting of the Language Origins Society, Oxford, England 1986.
- Foster, M. L. (1990a). Symbolic origins and transitions in the Palaeolithic. In Mellars, P. (ed.) *The emergence of modern humans: An archaeological perspective*:517-539. Edinburgh: Edinburgh University Press.
- Foster, M. L. (1990b). The birth and life of signs. In Foster, M. L. and Botscharow, L. J. (eds.) *The life of symbols*. Boulder, CO: Westview.
- Foster, M. L. (1992). Primordial Language. In Sheets-Johnstone, M. (ed.) *Giving the body its due: Challenges to a Cartesian metaphysics*. Albany, NY: State University of New York.

Foster, M. L. (1994). Language as analogic strategy: Suggestions for evolutionary research. In Wind, J., Jonker, A., Allott, R. and Rolfe, L. (eds.) *Studies in Language Origins, Vol. 3*:179-204. Philadelphia: John Benjamins.

Foster, M. L. (1996). The reconstruction of the evolution of human spoken language. In A. Lock and C. Peters (eds.), *Handbook of human symbolic evolution: 747-775*. Oxford: Clarendon.

Greenberg, J. H. (1987). *Language in the Americas*. Stanford, CA: Stanford University Press.

Greenberg, J. H. (2002). *Indo-European and its closest relatives: The Eurasiatic language family: Vol. 2. Lexicon*. Stanford, CA: Stanford University Press.

Harrod, J. B. (2002a). *Notes on Early Acheulian stone tools: Constitutive operations and analogies of the soul*. (Manuscript posted on website, OriginsNet.org).

Harrod, J. B. (2002b). *Notes on Middle Acheulian spirituality: Stone tool logic structures and analogies of the soul*. (Manuscript posted on website, OriginsNet.org).

Harrod, J. B. (2003a). *Five Later Acheulian symbolic traditions: Interpretation and decoding of palaeoart and palaeoreligion (500,000 to 100,000 BP)*. (Manuscript posted on website, OriginsNet.org).

Harrod, J. B. (2003b). *Deciphering Early Paleolithic Marking Motifs (LA_{mrk})*. (Manuscript posted on website, OriginsNet.org).

Harrod, J. B. (2003c). *Notes on reconstructing spoken Oldowan (OLD_{PL}), including a meditation on Oldowan symbolic art, marking motifs, and concept of the sacred*. (Manuscript posted on website, OriginsNet.org).

Klein, E. (1987). *A comprehensive etymological dictionary of the Hebrew language for readers of English*. New York: Macmillan.

Watkins, C. (2000). *The American heritage dictionary of Indo-European roots*. New York: Houghton Mifflin.

Wynn, T. (1989). *The evolution of spatial competence*. Chicago: University of Illinois.