A PROBABLE TOY DIGGING STICK WEIGHT FROM CA-LAN-240

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The ethnographic literature for the California and Great Basin culture areas records a broad variety of children's toys, some of which were used in vocational play that mimicked the behaviors of adults in their food quests. This study discusses what likely is a miniature digging stick weight recently discovered at CA-LAN-240, a vegetal procurement and processing station.

INTRODUCTION

Roberts and his colleagues (1959:597) conveniently divide the anthropology of recreational activities into two major domains – "games" and "amusements." Games involve organized play in which two or more sides compete following agreed upon rules for winners and losers; the amusement category includes noncompetitive pastimes such as twirling buzzes, spinning tops, and constructing cat's cradles. Some forms of recreation might cross over between what are competitive venues in some instances, but which in other cases serve individual or shared diversions absent considerations of victory or defeat.

Certain kinds of playthings associated with games and/or amusements are categorized as toys, the designation applied more quickly and easily, but not exclusively, to objects associated with children's recreational behavior. We submit that the children's toys of band and village level societies, whether or not connecting to game play, might usefully be seen as belonging to one of two groupings: (1) those objects lacking clear referent to adult artifacts and/or behaviors, and (2) mimetics that recall directly enough the artifacts and activities of grownups.

The inventory of Native children's toys documented for North America north of the international border with Mexico provides a rich and varied offering of games, some mimetic and others not, and of amusements, some mimetic and others not (e.g. Culin 1907; Hodge 1907-1910). A substantial inventory of categories of children's toys also characterizes the California and Great Basin culture areas (e.g., Aginsky 1943:411, 421; Applegate n.d.; Barrett 1952:327-328, 348-351; Barrett and Gifford 1933:263, 265, 270; Beals 1933:354-355; Boscana 1978:47; Chamberlin 1909:34, 1911:368; Culin 1907:480, 501, 661, 710, 759, 760; d'Azevedo 1986; Dixon:1905:206, 209, 1907:446; Dorsey 1901:17-18; Driver 1936:192-194, 1937:72, 85, 1939:328, 339-342; Drucker 1937:23-25, 1941:120, 130-131; Elsasser 1978:201; Erikson 1943:289; Essene 1942:15, 24, 27; Fane et al. 1991:205-206; Garth 1953:160-161, 175; Gayton 1948:202; Geiger and Meighan 1976:137; Gendar 1995; Gifford 1965:65-67; Gifford and Kroeber 1937:148, 189; Goddard 1903:35, 52; Goldschmidt 1951:373; Harrington 1934:20, 1942:27-28; Heizer 1953:238, 1978; Henshaw 1887:8; Hill and Nolasquez 1973:93-95, 104-105; Hudson and Blackburn 1986:425-434; Hudson and Timbrook 1997:8; Karr 2006:41; Kelly 1932:177, 1964:115, 118-120, 193, Plate 4h-j; Kelly and Fowler 1986:375, 381, 383; Kroeber 1925:449, 531, 1929:263, 264; Kroeber and Harner 1955:7-8; Latta 1999:326; Layton 1977:369; Loud and Harrington 1929:92; Loeb 1926:184, 190, 221-222, 379, 1932:50, 92, 1933:174, 177, 193; Lowie 1909:198-199; Luomala 1978:602; Mahar 1953:37; Myers 1978:245; Nomland 1935:164, 1938:109, 110; Pearsall 1950:340, 342-344, 347-349; Powers 1976:331-332, 333; Sapir 1923:52; Sapir and Spier 1943:279; Shimkin 1947:303-304, 1986:524; Shipek 1968:35; Silver 1978a:208, 1978b:219; Smith 1978:441; Sparkman 1908:211; Spier 1923:356, 1930:82-83; Steward 1933:288, 1941:249-251, 303, 306-307, 1943:331-334, 357; Stewart 1941:401-402, 1942:291-292; Thomas et al. 1986:273-275; Tuohy 1986:229-230, 236; C. Voegelin 1935:224-227; E. Voegelin 1938:36, 48, 1942:73, 97-98, 100-102, 203; Wallace 1978:646-647; Wallace and Wallace 1979:21; Wiedmann n.d.:35).

A listing of toys, the vast majority aboriginal but a very small number post-contact introductions, includes the following: dolls and other objects representing people in a variety of materials such as rocks, mud, baked clay, unbaked clay, rags, bark, wood, sticks, tule, wild parsnip tops, leaves and flowers, buckskin, and animal parts (e.g., stuffed duck heads ornamented with beads, *Haliotis*, yellowhammer feathers, etc.) ("Dolls" might be nothing more than outlines in the sand [Pearsall 1950:343]); doll clothes; doll cradleboards; doll beds; doll blankets (rabbit skin); doll baskets; miniature baby baskets; miniature houses including doll houses; doll shelters; playhouses; play dance houses; toy purses; play money; objects representing animals, many in fired or unfired clay and some in stuffed skins; girls' miniature tools denoting such things as burden baskets, mesh net bags, seed baskets, seed beaters, clay vessels, clay baskets, child-sized roasting pits and storage pits, mortars, pestles, digging sticks, and digging stick weights; miniature tools for boys representing such things as bows and arrows, quivers, harpoons, slings, rabbit sticks,

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snares, fish nets; miniature clay canoes, boy-sized toy boats; miniature canoe paddles and poles; toy smoking pipes; various kinds of stationary and moving targets for archery and other contests; quoits; noisemakers such as buzzers (made, for instance, from acorns, shell, rawhide, wood, bark, deer carpals, tarsals and hoofs, and rattlesnake rattles), bull-roarers (whirrers), toy whistles of various materials (including straw, *Equisetum*, and goose quill), rattles, and acorn musical strings; snow-snakes; ground coasting arrows (e.g., skating arrows and gliding arrows); arrow whips (a kind of incomplete bow); small rock catapults (another kind of incomplete bow); stilts; swings; vaulting poles; notched sticks (long breath game); sleds (e.g., pieces of bark, bones and skins); snow slides; skip ropes; marbles; cat's cradles (string figures); hobby horses; jack stones/bones/clay balls; juggling stones/bones/piñon nuts/small gourds (pumpkins and watermelons); balancing poles; filliping stones and berries; wooden stone flippers; dodge rocks; throwing seeds (that stick to clothing and hair); mud slinging sticks; shot put stones; balancing poles; balls of various materials and "bats" of such materials as deer scapulae and wood; double balls; double ball sticks; pebbles and other objects to be hidden for guessing games; other assorted gaming pieces/counters/dice; ring-and-pin games; ring-and-dart games (e.g., hoop and arrow); hoop and dart; hoop-and-pole equipment; lance and peg equipment; shinny equipment; string tops; whip tops; teetotums; buckskin platforms on which to spin tops; water pistols (some of animal parts, other kinds made with vegetal parts); popguns; blowguns (peashooters); throwing sticks (small spears); bounce sticks; gambling trays; and various puzzles. Even some of the simplest natural objects by themselves, such as certain kinds of seashells, might function as playthings for children (e.g., Barrett 1952:351). Three- and four-year-olds in Klamath territory make neat rows of sticks on the ground, pile up little mounds of dirt, or doodle in the sand with sticks (Pearsall 1950:342). There is no claim that the above list is anywhere near exhaustive.

The focus of the present study is on an artifact from CA-LAN-240 (Figure 1). It is likely a mimetic toy, specifically a miniature digging stick weight (Figure 2), and if this interpretation is correct, an object relating to amusement rather than competitive game play. Following Hudson and Blackburn (1986:433-434), it would be classed as a type of "toy implement," which is to say, "a miniature copy of an object employed by adults that is used as a plaything by children."

In the section following this introduction, the artifact is described and spatio-temporal data and LAN-240 site function information are presented. The section subsequent to that offers discussion covering distinctions between digging stick weights and donut stones. Another section cursorily sets the LAN-240 specimen within the larger context of toy implements from the California and Great Basin culture areas, selectively emphasizing the regional ethnographic record; here, the didactics of toy implements receive attention. A "Summary and Concluding Thoughts" section closes the article.

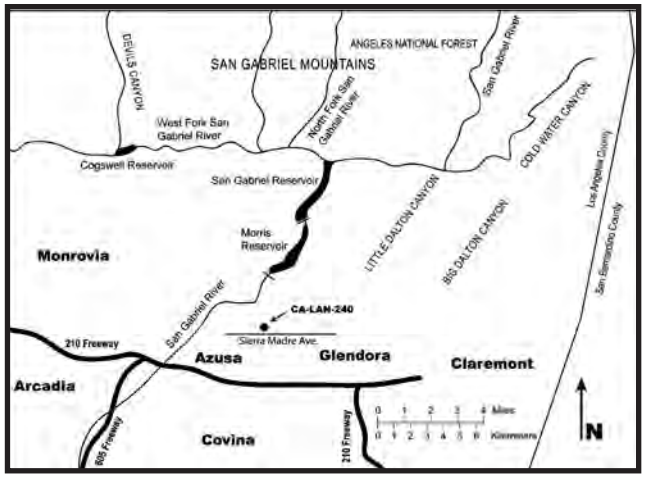

Figure 1. Location map.

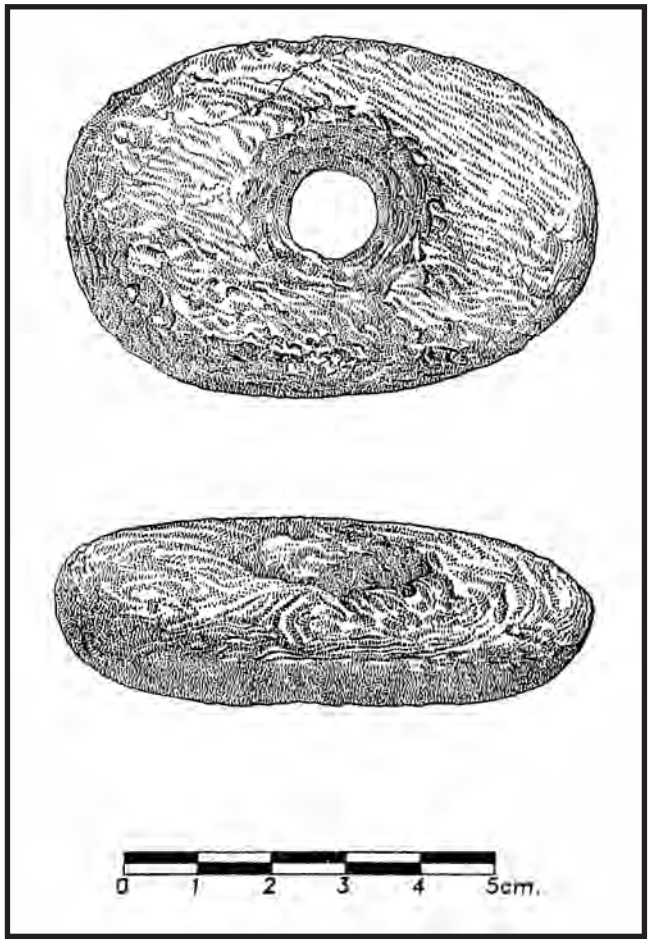

Figure 2. Probable toy digging stick weight from LAN-240.

The Artifact and its Archaeological Context

The probable toy implement illustrated in Figure 2 has a maximum diameter of 7.2 cm, a maximum width of 4.8 cm, and a maximum thickness of 1.7 cm. The 92.4 g object was crafted out of a grey colored schist. Some small amount of pecking and grinding were applied to fashion a shape commonly associated with digging stick weights, only in miniature, and the hole was biconically perforated by pecking and drilling. Hole diameter is 1.1 cm. There is no clear evidence for an adhesive around this perforation.

LAN-240 is located along a 300-ft stretch of a knoll situated between upper Beatty Canyon and the heads of two other arroyos east of the canyon in the San Gabriel Mountains watershed, specifically in the lower foothills of Azusa Hill. The steep San Gabriel Mountains proper rise rapidly at the north end of the site. From this area, Beatty Canyon drains towards the southwest, while two smaller arroyos to the east and west join together just southeast of the site, draining to the south-southeast.

The knoll would have been almost surrounded by thick woods growing along these drainages. Many local springs would have provided drinking water. Local hillsides would have included Woodland and low-elevation Chaparral environments. Today, most of the steeper hillsides and deeper canyon bottoms remain host to many plant species which were important to Native peoples. These species include California walnut, oak, sycamore, toyon, prickly pear cactus, yucca, sage, etc. The extensive woods would have been inviting for the gathering of vegetal foods and fuel, and for hunting a varied fauna.

Radiocarbon analysis bespeaks utilization of the area at least during the late Late Prehistoric period. Lithic analysis supports the hypothesis of LAN-240 as a plant food procurement and processing site. Grinding implements outnumber flaked tools by two to one. The local abundance of schist, rhyolite, and dacite was ideal for onsite production of milling equipment.

The economic focus was undoubtedly directed to harvesting acorns and walnuts as well as exploiting the yucca and plants producing small seeds. Since gathering and processing vegetal foods were primarily female tasks, we infer the probability that LAN-240 was a station visited mostly by women and their children. On one such visit, a little girl may have left behind her toy digging stick weight.

Digging Stick Weights Versus Donut Stones

It is a category error to commingle both utilitarian digging stick weights and magico-religious donut stones under a single rubric. This mistake is an unwitting consequence of the two artifact types' historical/symbolic connections. A recent article (Koerper 2006) on the aetiology of the donut stone explains how a process labeled "sexualization - sacralization" might account for the digging stick weight qua donut stone phenomenon.

Notwithstanding certain general resemblances of form shared by the two kinds of artifacts, comparative morphological guideposts separate specimens that are stick weights from those that are donut stones. Distinguishing the ritual/ceremonial donut stone from the artifact type employed mostly in foraging for plant foods depends more on assessments of qualitative factors than on presence/absence determinations for discrete design elements.

Donut stones are almost invariably more carefully fashioned than stick weights. With "donuts," there is greater attention given to achieving symmetry, and in plan view, generally, there are closer approximations to circular shapes. Especially telling is the height/diameter ratio of a donut stone, which is greater in comparison to digging stick weights.

The faces of digging stick weights might be uneven, frequently undulating. Donut stone surfaces are smoothed, most often well polished. Any notable polish of digging stick weights tends to be confined to the most constricted area inside the central perforation; such polish reflects use wear. The lapidary quality of materials for donut stones is generally superior to that of the stick weights.

The low height/diameter ratio of the LAN-240 specimen is especially telling. Its noncircular outline, its rough surfaces, and its material (schist) together indicate a mimic not of the magico-religious artifact type but rather of the utilitarian tool.

Toy Implements: Discussion

A cross-cultural record of band- and village-level societies documents the recurrence of children's games and amusements that imitate adult social and technical knowledge and skills. California ethnography offers many specific testaments of such. For instance, among the Tipai-Ipai, "A child, playing with clay dolls and miniature objects, imitated adults under grandparental direction" (Luomala 1978:602). Kato boys and girls played "going camping" in conscious imitation of their elders (Loeb 1932:50). Loeb (1932:92) also noted that Wailaki children's games mimic adult occupations such as war, hunting, fishing, and dancing. Nomland (1938:109) reports that among the Bear River Athabascans "boys shot at targets with diminutive bows and arrows" and "little girls made dolls of leaves," spending, however, most of their time imitating their mothers' activities (see also Nomland 1935:164). Klamath girls imitated women

by building "little dome-shaped lodges" (Spier 1930:86), and their mothers and grandmothers encouraged small girls in their imitations of child rearing, digging up roots, etc. (Pearsall 1950:343). Pearsall (1950:348) notes that even very small Klamath girls were given toy digging sticks. The scholar writes:

> With the sticks the girls play around the camp, digging up clumps of grass to be used as "camas" and "ipos" for feeding their dolls. Children often accompany their mothers after berries, seeds, and roots. They are allowed to run about as they please and only help if they wish....
>
> When a girl is nine or ten, her mother gives her a real digging stick of slightly smaller dimensions than her own. The girl is also given a small carrying basket to wear on her back and a basket to put the roots in before they are transferred to the carrying basket. The mother shows the girl where to go to get the best roots and how to insert the stick to loosen the earth all the way around the root before prying it out [Pearsall 1950:348].

Hupa girls imitated adult women by weaving little baskets and tending to imaginary babies in miniature baby baskets (Goddard 1903:52). Atsugewi girls engaged in pretend housekeeping and would use sticks for make-believe root digging; they also pounded dirt in imitation of acorn milling (Garth 1953:160). Pomo girls and boys are described as playing in imitation of their future vocations, the girls attending to dolls fashioned of wild parsnip tops or of clay, the boys throwing sticks into rivers in pretending to catch salmon (Loeb 1926:222; also Barrett 1952:328). Barrett (1952:350) provided additional detail on Pomo children's "vocational play," which included the youngsters' construction of toy ceremonial/dance houses. He writes:

> Children played at house and village building, even going so far as to build miniature dance houses. Boys and girls played at this together, the boys performing those tasks undertaken in real life by the men, and the girls doing the work of the women. In house building, the boys collected the materials and built the framework of the ceremonial house. They also collected branches, leaves, and grass for the first layers of the roof. The girls mixed the clay and put on the final dirt covering the roof [Barrett 1952:350].

Another quote with excellent detail to illustrate the intensity of "vocational play" concerns the Yurok. Erikson writes:

> Yurok children love to play wife purchase and to build miniature brush houses. Underneath the roof they hang sprouts of salmonberry representing drying salmon. The leaves of the firecracker flowers make good purses, their flowers, money. The girls make dolls out of blue mud and put them into little cradle baskets; but they must not put two dolls together in one cradle – a prohibition probably originating in the Yurok's dislike for twins, who they think may have committed incest *in utero*.... The girls play cooking and feeding the dolls, using wild celery as food.
>
> While the boys may play with dolls once in a while, girls are definitely forbidden to play with the boys' toys, namely, small dugouts made of the bark of bull pines, and bows and arrows. The boys were warned not to put toy canoes into the real creek or the river or even near the ocean. They have to build their own body of water somewhere inland, but must not spill or waste any good drinking water [Erikson 1943:289].

Related behavior might include the mimic fights of the boys, as well as their imitative sports and games. Spier (1930:86), referring to the Klamath, writes that in addition to children imitating their elders' daily activities, they also imitate their elders' games/amusements such as when "children play at shinny and double ball, and make cat's cradles." See also Shimkin (1947:303-304) on the Eastern Shoshone.

Toys that are adjuncts to such didactic kinds of play presumably enhance the pleasure of learning about adult activities and responsibilities. The two most common categories of mimetic toys are dolls and what Hudson and Blackburn (1986:433-434) identify as "toy implements," that is, miniature copies of artifacts used by grownups. One reasonably presumes that every California linguistic tribe possessed toy implements, and usually in some variety. A Chumash husband and wife informed Henshaw that all objects of adult employment were duplicated in miniature for the children (Henshaw 1887:8). With few exceptions, such as the bull-roarer, toy implements relate rather directly to either the procurement or preparation of foodstuffs.

Parenthetically, the bull-roarer, when in adult hands, while occasionally an amusement, served mostly in social/ritual/ceremonial venues (see Bowers 1885, 1963; Drucker 1937:25; DuBois 1908:101, 173; Elsasser and Heizer 1963:22;Gifford and Kroeber 1937:145, 217; Harrington 1942:28, 41; Heizer 1960:7-8; Kelly and Fowler 1986:383; Kroeber 1922:277, 1925:666, 712-713; 1929:263; 1932:412; Loeb 1926:379, 1932, 1933:174; Sparkman 1908:211; Spier 1923:322-326; Steward 1941:250, 1943:333, 357; Stewart 1941:401, 1942:291; Strong 1929; Wallace 1978:646-647; Waterman 1910:282, 298, 308; for Baja California, see Meigs 1939:45). In some tribes the bull-roarer was only a child's toy (e.g., Kroeber 1929:263), but in some places children were not allowed to use a bull-roarer on pain of

some sort of sickness or misfortune (Garth 1953:175). It is not recorded whether children using bull-roarers were consciously mimicking their elders' employments of the whirrer beyond playful amusement. The reader with special interest in the varied roles, etc. of this "musical device" is also directed to the following: Dixon 1905:209; Gifford 1940:163, 221; Heizer 1960:Figure 3, Plate 1 a-d; Hudson and Blackburn 1986:317-321; Kelly 1964:119-120; Kroeber 1925:508, Plate 44 d-f; Massey and Osborne 1961:360, Plate 15; Smith 1978:441; Spier 1930:83-84; and Thomas et al. 1986:275, Figure 17.

With regard to male subsistence activities, the literature of coastal southern California contains references to toy bows and arrows (Hudson and Blackburn 1986:433-434, see also Blackburn 1975:127; Heizer 1968:63, 129). Indeed, we anticipate that most, if not all California groups so provided for their young boys (e.g., see Elsasser 1978:201; Erikson 1943:289; Garth 1953:160; Gendar 1995:84; Goddard 1903:35, 52; Goldschmidt 1951:373; Loeb 1926:222, 1932:50; Shipek 1968:35). Parenthetically, elsewhere in the California culture area, certain kinds of miniature bows and arrows served in a target shooting game that boys and/or adults played (e.g., Dorsey 1901:17; Kelly 1932:171), and in other cases as elements of ritual/ceremonial activities (e.g., Loeb 1933:163, 182-183). Also, the Yurok hung a small bow and arrow from a boy's cradle, dangling it near the baby's head (Erikson 1943:284-285); this may have served a homeopathic magical function and/or an amusement function, rather than being a toy per se. A Klamath father-to-be hung a tiny bow and arrow in his house to assure the baby would be a boy; later the newborn boy would receive a present of a small quiver or a miniature bow and arrow (Pearsall 1950:340). Interestingly, if the baby turned out to be a girl, the gift would be a small digging stick or small basket (Pearsall 1950:340).

In northern Baja California, boys had small non-return boomerangs, or rabbit sticks, with which they learned the job of hunting certain kinds of small game (Koerper et al. 1998:72). Even some girls might play with rabbit sticks. For instance, Diegueño Delfina Cuero's father made her a toy rabbit stick to throw at targets in a game/amusement (Shipek 1968:35). One reasonably supposes that toy rabbit sticks had been employed by nearly every group that had this weapon technology. The senior author has encountered very small rabbit sticks in museum collections.

With regard to female activities, little girls among the Juaneño and Gabrielino were provided a small, shallow basket (*tucmel*) "suitable to their size" by adult women. With these, the children were instructed how to clean seeds gathered to be made into *atole* (acorn soup/gruel/mush) and *pinole* (ground, toasted seeds that were consumed dry or mixed with water) (Boscana 1978:47; Harrington 1934:28, also 1978:161, 165-166; see also Heizer 1968:63). They would also be taught how to grind or pound up, respectively, hard seeds and acorns, but it is not stated whether these lessons involved miniaturized milling equipment. Ineseño (also Ynezeño) Chumash consultant María Solares informed J. P. Harrington that children often carried small islay baskets made expressly for them (Hudson and Blackburn 1986:434). An islay bag is a "small-mesh cordage net (in the form of a bag or sack with a wooden ring around the mouth) that is used in gathering islay" (Hudson and Blackburn 1982:293). Islay (*Prunus ilicifolia*) is also known as Evergreen Cherry and also as Hollyleaf Cherry (see Moerman 1998:442; but also see Mason 1912:118).

It was Paul Schumacher who apparently suggested that the smaller specimens of certain perforated stones might be toys for children (Putnam 1879:161). Henshaw's Chumash informants reported these artifacts as digging stick weights for youngsters (Henshaw 1887:8). It is hard to imagine an archaeological specimen better suited to make the case for the existence of the "child's digging stick weight" than the object that is the focus of the present study.

Summary and Concluding Thoughts

Amusement in the lives of Native California children included mimicking the vocational activities of their parents and other adults. At times, the older generation actively participated in these behavioral settings.

Youngsters frequently abetted such educational play using toy implements, especially miniature copies of those adult tools associated with food procurement or food processing. References to toy bows and arrows and to tiny seed baskets, for instance, recur in the ethnographic literature.

Regionally, there is mention of toy digging stick weights (Henshaw 1887:8). The investigators at LAN-240 have unearthed what is very likely one such example. The shape of that artifact (Figure 2), ovoid rather than circular and with low thickness-to-diameter ratio, relatively low-grade material (schist), and the relative inattention paid to surface finish, all help to identify the specimen as a probable toy weight for a shaft rather than as a toy sacred donut stone. Also, our search of California and Great Basin ethnographic sources turned up only a single reference to a sacred effigy or effigy-like artifact that would have been duplicated as a symbolic ritual toy to be owned/controlled by a child (see Boynton 1978:146). Parenthetically, in regard to the bull-roarer, our perusal of the literature for the California and Great Basin culture areas found no mention of these "whirling boards" as anything beyond objects of amusement when employed by children.

The general behavioral scene inferred from the material remains at LAN-240 is that of a site where female procurement and processing activities predominated. If the reader will indulge us, at an interpretive level that is admittedly far more humanistic than scientific, the authors imagine a little girl alongside female relatives, "working" contentedly if not proudly in her pretend role as a "woman." But did the "child" reemerge when her tears announced that the toy digging stick weight was missing? Centuries later, what had perhaps been a child's sad loss has become a joyful gain for archaeologists contemplating past lifeways reconstructions.

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