Archaeology and Developmental Psychology  
A Brief Survey of Ancient Athenian Toys  

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The authors note that ancient Athens, in important ways, connected children, toys, and play. But they also find the scholarship of toys sparse and scattered. They discuss obstacles that can skew our modern view of the Greek mind, and they caution that modern eyes should not see play where the Greeks saw ritual and religious devotion. With these challenges in mind, the authors draw from archaeological, linguistic, and literary evidence found in ancient toys, art, and texts to offer an ecology of play that fits both modern and antique societies and guides future investigations of the subject. **Key words:** ancient Athenian toys; archeology and childhood in ancient Athens; classical dolls; classical rattles; classical wheeled horses; geometric and classical periods

Toys join a short list of the earliest human artifacts, and play—with or without toys—seems to be universal among ancient humans. Consequently, in general, *Homo sapiens* are also *Homo ludens,* “man the thinker” is also “man the player.”1 Play has become increasingly integral to our impression of childhood in particular, and students of play have long recognized its developmental function. Because children seem innately driven to play, because they are anatomically equipped to handle objects, because they have the intelligence to recognize that most objects and actions have uses and are capable of mastering these uses, and because children appear to endow some objects and actions with special significance, play and toys dominate our impression of childhood. Of course, cultural conditions and historical circumstances are just two of many variables that determine the extent of play, the tools and toys of play, and the patterns of preference related to play. So far as we can tell, for the ancient Athenians, as for us, this triad of children, play, and toys was a commonplace.
Athenian Toys: Limitations of Evidence and Interpretive Challenges

Archaeological excavation of sites in and around Athens that date from the geometric period through the classical period—roughly from the mid-tenth century BCE to the fourth century BCE—has yielded many toys of clearly different types and designs and plainly of various functions. We know from these digs that most of these playthings seem to be connected to wealthier families in Athenian society, in part, of course, because they who could afford toys could also meet the expense of the elaborate burials that have preserved such objects. Conversely, it is very difficult to identify the simple graves of children of the lower classes, the larger portion of Athenian society. And in those instances archaeologists do recognize and investigate the unadorned graves of slave children, for example, they seldom find any artifacts, toys or otherwise. And further, scholars have often lost information about the places of discovery—“find spots”—that detail spatial relationships of multiple objects, the kind of information that helps establish context. Without such spots, dating objects often becomes difficult, and orphaned objects lose their social and historical context. Besides archaeological obstacles, a sparse scholarship also limits our appreciation of ancient toys. Unfortunately, nothing close to a complete bibliography of publications on Greek toys, let alone Athenian toys, exists. Much material appears scattered in the professional literature of excavations, museum publications, and various, little-known data bases. To minimize these obstacles, we have chosen to concentrate on objects predominately from collections in Greece. Given these limits, the resulting assemblage of objects is still impressive and complex—and sufficient to provide evidence for a provisional typology of Athenian toys.

Archaeologists and historians rely on an evidentiary triad—artifacts, written sources, and iconographic evidence—as they wrestle with basic questions. Ancient objects that look like toys may, in fact, have been symbolic religious objects. A doll found in a child’s grave may have been a plaything. But if it were unearthed at a sanctuary dedicated to a specific deity, it may more likely have been associated with religious devotion. Iconographic evidence on vases and grave steles sometimes shows how artifacts were used and by whom. And artistic representations of children also yield important information. Likewise, ancient literary sources, including texts from such philosophers as Plato and Aristotle, help reveal adult views of children and children’s play. Greek plays show children in action and sometimes reveal complex interactions between children, adults, and deities.
This triad of artifacts, written sources, and iconographic evidence supplements archaeological data. Complicating the picture, however, is that artifacts may have multiple functions, and these functions can change over a child’s lifetime or across generations. Dolls, for example, may have been both toys and sacred objects, tools of play but also objects of religious importance in so-called transition rituals. Before marriage, girls in ancient Attica offered dolls fashioned as female adults to the goddesses Demeter, the patron of harvests and fertility, and to her daughter Artemis, the protector of young girls and the guardian of both virginity and pregnancy. Young Athenian women visited the site of the cult of Artemis Brauronia on an inlet of the Aegean, a sanctuary closely connected to children, family, fertility, and femininity. But all indications are that, prior to their dedication, these offerings had served as toys that afforded imaginary play.

It is impossible to know how many types of toys existed in ancient Athenian society or all the associations, emotions, and actions they inspired in those who played or who observed play. However, linguistic evidence strongly suggests that participants and observers would have associated play and toys with the idea of childhood. The Greek nouns “child” (páis), “play, game and sports” (hè paignia/to paignion), “plaything” (to paignion), and “I play” (paizò) and “a child’s playtime” (hè paidia) have a common root. In what seems a strikingly modern observation, Plato noted how children between the ages of three and six love to play and invent games together. He also held that facility at play pointed toward a child’s intelligence. Plato’s recommendation that nurses should supervise children to correct undisciplined play further indicates to us that at least some ancients had created a category of childish, uncontrolled play, which today we would call free, rough-and-tumble play. Plato believed that because play served an important social function it needed to be controlled and channeled into productive result. The ideal toys would help children practice their future roles in adult life. For example, a future house constructor should play with tools made for constructing houses and should make miniature houses for practice.

The care, craft, and expense involved in the production of some markers of childhood and, by extension, the cost to a buyer, further indicate the premium placed on toys and play in ancient Athens. Professional doll craftsmen, makers of miniature figurines, votive gifts, statuettes, and other clay toys, were known as koroplathoi or koroplastes (maiden modelers). The dolls they made had different names according to their specific design and character—simple korai (maidens), articulated dolls called plaggones (waxens, perhaps, but also something made of clay or wood), nymphai (likely, brides), and others with strings attached—ta neu-
Excurations have revealed several large centers of toy production inside and outside Attica that show doll manufacture to have been but one component of a toy industry dedicated to the production of signifiers of status for children, their families, and, if dolls or other toys were gifts from outsiders, their givers. All this reveals Athens as a child-, toy-, and play-conscious culture.

The Developmental Function of Toys and the Environment of Play

Broadly speaking, a toy is a material object used by a child in a special way and thereby given a new function. The child's stance with regard to the object is not so much to ask “what is it?” (for often this is plain to see) as to ask “what can I do with it?”. This doing involves important developmental functions in infancy and early and middle childhood. Early in ontogenesis, during the prolonged period of human childhood, the use of props for imaginative play is vital, for, at this point, mental representation and symbolic thinking are just beginning to gain in sophistication. As children freely fantasize, objects become one of several determinants of play themes and, in the process, become toys. These objects may be thought of as components of an environment—or ecology—of play, with seven noteworthy features: physical space for play; time for play; tolerance or promotion of play; limitations on play (whether socially or individually imposed in an atmosphere of harsh discipline and dangerous child labor); a child’s recognition of play themes; the presence of props within the context of these themes; and what may be called the affordance character of some toys (that is, something about them demands they be played with in a specific way).

Abundant physical, literary, and graphical evidence demonstrates the presence of these seven contingencies in ancient Athens.

Play, whether driven by sensory-motor delight or propelled by imagination and fantasy, whether solitary or social, and whether played with improvised objects or with objects produced purposely and systematically by adults as toys, was as normal twenty-five hundred years ago as it is today. Many types of Athenian toys are immediately recognizable to us. Familiar examples include balls, yo-yos, tops, hoops, whistles, rattles, wheeled horses, and dolls. The three—rattles, wheeled horses, and dolls—repay careful consideration, for they make possible the formulation of the artifacts’ developmental functions, attention to which can reveal previously unappreciated aspects of Athenian society. At the
same time, rattles, wheeled horses, and dolls potentially inform future comparative studies of toys from antiquity to modern times.

**The Rattle**

As it is today, the rattle was a favorite toy in ancient Athens. Indeed, we find rattles in numerous locations throughout the Greek world, from Greek cities in Italy to Hellenistic Syria, from settlements on the Black Sea to ancient Alexandria. They appear sometimes in animal shapes—pigs, rooster, hares, or owls for example—sometimes, as in figures 1 and 2, simply in the shape of clubs.
The rattle of figure 1, from a child’s grave in Attica, dates to the classical period and is typical of the category of club-shaped rattles. It is white ground terra-cotta with traces in red paint of what probably was decoration. Its handle has a hole at its end to accommodate a string that, when put around a child’s wrist, would have lessened the likelihood a child lost the rattle by dropping it or throwing it. An Attic chous—a vase type suitable for pouring commonly found in children’s graves—(figure 2, from about 440 to 430 BCE) shows a male child in a high chair or potty stool. In his extended right hand, he displays a club-shaped rattle on which his gaze seems focused. The chous and a toy roller depicted beside him suggest a domestic scene. Another chous from shortly after 400 BCE depicts a girl shaking a similar rattle before a male baby, which may have prompted older children to play with their infant siblings.\textsuperscript{13}

Figure 2. Chous with the figure of a toddler in highchair or potty stool with rattle. British Museum of London. Sommer and Sommer (2015), 7, 72.
An owl-shaped rattle, also of white terra-cotta and decorated with red paint, displays owl-shaped ears but no beak. Two holes serve as eyes. A child would have grasped and shaken this pebble-filled toy by a handle on the owl’s back. We have not found any images—perhaps because they did not survive—of animal-shaped rattles, only the objects themselves.14

Large rattles also survive, though they are far too heavy for a child to have handled and were probably used by adults or older children to stimulate and amuse infants, as we do today. One such rattle, from fourth-century BCE Cyprus, is pig shaped. The pig’s body and snout have been formed on a potter’s wheel, while its ears, legs, tail, and spinal ridges have been molded by hand. Diagonal stripes on the body represent hair. Inside are seeds or clay pellets. Pierced holes in the rattle prevented the clay from exploding during the firing stage of production.15 Because archaeological excavations on Cyprus have yielded numerous similar rattles, it is reasonable to infer that the island was a center for their manufacture.16 This specialization and craftsmanship suggests that, in addition to fun, rattles had other significance.

One Greek representation of a child (figure 2) seems to communicate such fun and this further significance. The rattle begs to be held and seems to reward the rattler with what we guess is a distinctive, insistent, pleasing sound. Taken together, these seem to confirm for the child and the observers an assertion of will and a mastery of movement.17 Figure 2 clearly captures a moment of skilled sensory-motor coordination that has allowed the child with his fingers firmly around the handle to hold the object steady and upright, to stretch and lift his arm, and to govern all this through a three-dimensional, binocular focus on the rattle. The boy is obviously in charge.18

The image further suggests that Athenians welcomed little boys showing off—that this was desirable behavior. The figure communicates the child’s abilities to concentrate, to be motivated, and to be interested in an object, all highly important competencies for any child to master.19 We are left to imagine the sound of the rattle that would have validated this power of agency, this assertion of will. Within the context of the agonistic culture of Athens, its appetite for contest, and its radically participatory democracy, consciousness, and exercise of these capacities might one day have served the child well.20

But shaking rattles, then as now, must also spring from the joy of the act itself.21 The expressions and gestures of crawling toddlers and children playing alone or together on many examples of choes, more often than not, communicate a state of mind recognizable to us. The children are having fun. They also suggest
that, even if someone else had given the object in question to a child, it was up to a child to choose to use it. Thus, recognizing the object as a toy and deciding to play with it was a child's decision.

The Wheeled Horse

The world’s earliest example of a wheeled horse, found in a child’s grave in Athens (figure 3), dates to between 950–900 BCE. The toy is so well preserved that we might fairly ask if it was ever played with, and if not, did someone inter it with a deceased child as a gift? The object features a black glaze and decora-
tion in a geometric style, has modeled ears, mane, and tail, and a small hole in its snout through which a string would have been passed to allow a child to pull his toy horse along, to tether it, and to play at using reins. (The wheels shown here are modern additions.) Although fifth-century Athenian vases bear images of many other roller toys (see figure 2, for an example), to date we possess none that picture wheeled horses. The reason remains unclear. In any case, absent depictions of this particular toy in action, some aspects of its use may escape us. Later evidence helps offset this gap in the iconographic record. For beginning with the Hellenistic period, representations of wheeled horses, wheeled pigs, wheeled roosters, or other wheeled animals abound.

**Play Affordances of the Wheeled Horse**

Some toys, again, not only demand to be played with but also afford certain themes of play. In the case of wheeled horse, the initial trigger would be recognition of the horse itself and the association of the toy horse with the form and functions of real horses. In turn, this association helps explain why forms of wheeled horses and other types of wheeled toys do not seem to vary much over time. Such toys mirror the forms and—to the degree possible and desired by designers—the functions of their models. It is no surprise, then, that they prompt largely predictable patterns of play. While this phenomenon seems immediately evident in the resemblance between the toy of figure 3 and modern wheeled horses, it extends to a wide range of other toys in this category, be they animal toys or transportation toys such as wagons. As for play themes, although wheeled horses could inspire farm play, of course, they also—as opposed to, say, wheeled pigs—favor pretense of travel, sport, and warfare. Whether the toy afforded solitary or group pretense, we can easily imagine that children created narratives that included characters who took sides, embarked on adventures, reenacted mythic tales and historical events, and engaged in other scenarios that required complex thoughts and actions.

Ancient Athenian culture was visually spectacular. Horses were integral components of sculptural programs, the Parthenon frieze being a famous example. They often appeared on the grave steles of fallen warriors who had performed noteworthy feats of heroism. Adult conversations about or a child’s actual presence at or participation in horse races or civic or religious processions would have supported additional, experiential play themes. In fact, horses and images of horses appeared everywhere in Athens, furnishing Athenian children with plenty of raw material for play. By using their toy horses in symbolic play, boys would have begun to mark in their minds and their actions what might be
their future place in Athenian society. In the highly symbolic culture of Athens, symbolic play would have readied them for a range of roles in Athens’s participatory democracy and prepared them for their eventual participation in Athenian rituals, whether primarily civic or religious. Indeed, it is hardly a stretch to suggest that such play would have made more comprehensible the actions and intentions of the gods themselves.

The Doll

The formative influence of symbolic play is at work, too, in the case of dolls. Most archaeological museums in Greece display dolls from the archaic and classical periods dating between 850 and 323 BCE. Distinctive patterns of craftsmanship and construction evident in many Athenian dolls suggest they were the products of particular workshops. Adults shopped for them and purchased them, and children received them as gifts. It is easy to imagine that children then, as they do now, requested a doll of a certain type. As they do today, ancient dolls traveled easily with their owners. They might even have been thought of as having lives of their own. As tempting as it is to associate dolls narrowly with children at play, however, they often also served as votive offerings to deities and gifts to goddesses in rites of passage. Before marriage, brides-to-be made gifts of dolls to the appropriate deities. In this way, dolls more complexly served both sacred and playful purposes, acquiring sacred value in secular contexts and tinting the sacral with the playful.

The dolls’ symbolic functions included introducing girls to womanhood, to particular cults, and to specific deities. Indeed, on the basis of what particular dolls carry and their capacities for movement when shaken, we think it justifiable to wonder if children could have used them to act out rituals in which they themselves might one day participate or over which they might even preside. Of course, dolls also served as icons of childhood and children at play, and they must have had the power to evoke memories of their own early years in the minds of grown Athenian women.

Grave monuments often powerfully suggest lost childhoods by representing departed girls with their dolls, and they evoke reflection on their never-to-be futures as women and mothers. This may help explain why doll figures always portrayed mature females and never children. Moreover, the figures of dolls, slim and usually with developed hips and breasts, feature molded styles of hair
reflective of current fashion. These features betray an ancient appreciation of the doll’s role in making girls aware of how they should aspire to look as adults, articulated with increasing care from the geometric through the Hellenistic periods (again, roughly the tenth through the first century BCE). One of a doll’s many silent messages to a young girl was: “This is what you will become.” In this respect, a doll represented a telos—a goal and an end.

This process by which dolls became increasingly human-like follows a broader tendency discernable in Greek art and literature. In the former, this movement results in images of humans as ideally proportioned bodies instead of conglomerates of geometrically delineated parts. In the latter, this shift in focus switches from human heroes to heroic humans and eventually to plain, simple people. Both of these changes, perhaps, reflect a growing consciousness of “self” or “humanity.”24 The earliest Greek dolls of the geometric period (besides some found in Boeotia) are two bell-shaped figurines found in the same burial ground as the wheeled horse of figure 3.

Dolls in more human shape first appear in the archaic period. One such doll wears a hat and sports decorated, molded clothing. Such dolls are most often jointed, with strings attaching arms and legs to the torso. Their hair is painted rather than molded and attends to the style of the era. Their eyes are almond shaped and they always smile, as do statues of Greek maidens from the same period. Whatever broader function we today may attribute to these smiles as part of a process of the socialization or even domestication of females, the doll’s expression would have been an invitation to the Athenian girl to smile back, to make her doll a playmate, friend, and confidant, perhaps even a surrogate for some fondly remembered lost friend or family member.

The Classical Doll
The attractive, smiling, terra-cotta doll of figure 4, originally with painted decoration on a white background, exhibits the standard features of its type. A string would have been passed through the hole at the top of its head to facilitate movement in the fashion of a modern, jiggling marionette. Some of these dolls carry castanet-like instruments, indications of dance—perhaps ritual or festival dance—as a play theme. Since women regularly danced in groups rather than alone, such dolls may have invited group play in which several girls made their dolls dance as they themselves danced or might one day dance.

Such dolls exhibit several variations in form. Seated dolls with moveable arms sometimes include accessories—shoes, miniature furniture, and small
vases. These dolls show no evidence of painted clothing; either the dolls remained naked or girls dressed them in miniature clothing. If the latter, the doll invited its owner to learn to sew attire as she dressed her toy. Images that appear on grave monuments bear scenes of girls in nurturing play—holding dolls as women held babies. For young girls, it seems obvious that one aspect of doll play was acting like and identifying with grown-ups and especially with mothers. That said, Greeks dolls themselves are never babies or even children, but mature women. We have no extant examples of male dolls, and this, perhaps, is a final indication of a fundamental connection between dolls and the social space and gender-awareness of women, both those who purchased dolls and those who played with them.
Conclusion and Discussion

Working hands-on with toys more than twenty-five hundred years old evokes an understanding of ancient people and a sense of unity with them. The study of Athenian toys and play, informed by modern archaeology and developmental psychology, reveals interesting dimensions of Athenian life. The overlapping of form and function between toys in antiquity and toys today furnishes fundamental and sometimes touching insights into aspects of a common humanity discernable even across millennia.

Developmental psychology especially suggests particular common human experiences that rise above the vagaries of time and place. Developmental evolutionary psychology points both to panhuman commonalities and historical cultural differences. Homo sapien infants and adults communicate emotions by attuning to the faces of each other. Children at play everywhere and across time take advantage of the opportunities that toys afford them. Older children make up stories while they play, and they invent and refine pretend scenarios as they grow.

But we need to be circumspect in our conclusions. The differences in culture between our society and that of ancient Attica caution us against making universal conclusions. Archaeologists of childhood note that the dolls that have survived two-and-a-half millennia may have served purely as ritual and votive objects. Or, they argue that some dolls may have functioned primarily as hortatory examples and teaching tools. As the state of preservation and the lack of wear of dome dolls suggest, they may have been what we think of as fashion dolls or even shelf dolls meant for display rather than play.

Archaeologists often reach exclusive, either-or conclusions. If a doll was displayed on a shelf, for example, surely, so they claim, it was not meant for play. An object of serious, sacral function precluded its affordance in everyday play. In our own work, we have addressed this dichotomy in depth, weighting the evidence and arguing instead for a both-and stance. It is a fact that Athenian parents bought dolls and gave them as gifts to their daughters during what we think of today as the symbolic-fantasy stage of childhood development. An evolutionary developmental approach to play suggests that it would have been impossible for the children not to play with them. Like other play objects, the doll had dual functions in time and space: It was a “traveling” doll. In fact, the doll also followed its owner from her young playful childhood to her maturity when she brought her doll to the temple as she propitiated the proper goddess.
Dolls eventually used as votive offerings, then, likely matured in their function as girls themselves matured.

**Notes**


11. Sommer and Sommer, *Care, Socialization, and Play*, 81, figure 16.

12. Ibid., 79, figure 14.

13. Ibid., 81, figure 15.


