

[McMartin Preschool site](#)

# Archaeological Investigations of the McMartin Preschool site , Manhattan Beach, California

by E. Gary Stickel, Ph.D.

[Executive Summary](#)

[BACKGROUND](#)

[METHOD](#)

[HYPOTHESES AND TEST EXPECTATIONS](#)

[Part II](#)

[FINDINGS](#)

[CONCLUSIONS](#)

[SUMMATION](#)

## **Executive Summary**

During the month of May 1990 an archaeological project was conducted at the McMartin Preschool site to determine, once and for all, whether or not there had ever been tunnels under the building, as described by various children. Excavation was carried out according to established scientific conventions with a careful research design defining what might prove or disprove the existence of "an underground feature that would connect to the surface of the site and extend underground for some distance..(with) dimensions large enough to accomodate adult human movement through it." (p 24)

The project unearthed not one but two tunnel complexes as well as previously unrecognized structural features which defied logical explanation. Both tunnel complexes conformed to locations and functional descriptions established by children's reports. One had been described as providing undetected access to an adjacent building on the east. The other provided outside access under the west wall of the building and contained within it an enlarged, cavernous artifact corresponding to children's descriptions of a "secret room".

Both the contour signature of the walls and the nature of recovered artifacts indicated that the tunnels had been dug by hand under the concrete slab floor after the construction of the building. Whatever the purpose of this elaborate enterprise, even more effort must have been devoted to filling the tunnels back in and trying to conceal any evidence of their existence. Much of the fill dirt used for packing the tunnel spaces was mixed with historic debris, as if to mimic the surrounding terrain.

Not only did the discovered features fulfill the research prequalifications as tunnels designed for human traffic, there was also no alternative or natural explanation for the presence of such features.

## **BACKGROUND**

The McMartin preschool in Manhattan Beach, California was the first of what has since been described as a national epidemic of multi-victim, multi-perpetrator accusations of sexual and sadistic abuse which erupted in the mid 1980's. The McMartin case was encumbered with hundreds of charges against seven defendants and dozens of uncharged suspects. It became the longest, most expensive and arguably most controversial criminal trial in American history. The descriptions given by children to investigators and parents were unusual and unprecedented as they emerged in 1983, but they became so stereotypic to subsequent cases throughout the country as to become generic of presumed "ritual abuse". Accusations of such extreme cruelty and bizarre perversity in the absence of physical evidence or obviously deranged suspects led eventually to increasing skepticism that such crimes could possibly exist. Simple alternative explanations emerged, first as criminal defense theories and then as common wisdom: very young children were moved by the hysterical overreaction of various adults to make unfounded accusations. Full-page newspaper ads placed in 1984 by McMartin criminal defense attorneys raised the specter of the Salem witch trials. The witch hunt analogy has since flourished to create substantial public distrust of pre-school-age witnesses and of the adults who question them.

The failure of prosecutors to obtain even a single conviction in the McMartin trial has been taken by many as proof that the children's allegations were merely fantastic. Various journalists have demanded punishment of the professionals and parents who had chosen to believe them. Similar allegations arising more recently in other cases in the United States and abroad are tested against the McMartin standard, creating a prejudice against investigating or substantiating even remotely "bizarre" complaints. Parents in such cases feel triply betrayed; first with the dreadful discovery of abuse; second with their abandonment by law enforcement, and third with being blamed for imagining the abuse and fomenting public hysteria.

One of the supposedly bizarre aspects of the McMartin case was the children's insistence that they were taken into underground tunnels. They explained that the tunnels led to an underground "secret room" where abuse occurred, as well as providing a route for subversive transport to off-site locations for sexual exploitation. These stories were apparently considered fantastic by investigators, who made no attempt to search beneath the building.

A group of parents forced the hand of the district attorney on March 17, 1985 by initiating an excavation in the adjacent lot. The district attorney then authorized an archaeological inspection of that lot by Scientific Resource Surveys Inc. (SRS). There was no exploration beneath the slab floor. Instrumental survey with a terrain conductivity meter failed to detect alterations under the concrete. The SRS technician

informed the district attorney's investigator that the meter proved useless within the structure because of excessive interference from pipes and steel reinforcement. The preemptory conclusion at that time that there were no tunnels has become gospel among detractors of the McMartin families. Influential journalists ridicule parents for ever entertaining such a possibility and mock their subsequent attempts at exploration.

The first opportunity for private exploration came in April 1990 when the property was sold. Several parents obtained permission from the new owner to search for the tunnels. After cutting out a section of concrete and coming up with ambiguous findings, it became apparent that experienced supervision was needed. Gerald Hoobs a professional miner, was engaged to insure safety and to better define the nature of the underground artifacts. When an apparent tunnel entrance was discovered and then verified by geologist Dr. E. Don Michael, parents sought out the archaeological team that completed the present project.

## **METHOD**

The project was designed and conducted by E. Gary Stickel, Ph.D., on the recommendation of Rainer Berger, Ph.D., Professor and Chair of the Interdisciplinary Program of the Archaeology Department at UCLA. Dr. Stickel is director of Environmental Research Archaeologists, a Scientific Consortium (ERA)

## **HYPOTHESES AND TEST EXPECTATIONS**

The primary research problem was to determine whether or not there were a tunnel(s) and an underground room(s) at the site in question. To meet the test hypotheses, a tunnel would be an underground feature that would connect to the surface of the site and extend underground for some distance, possibly (but not necessarily) connecting to an underground room(s). It would have to have dimensions large enough to accommodate adult human movement through it. Such a tunnel on the subject property could have been constructed in two ways: 1) either dug out as a trench-like opening which would then be roofed over with wood and/or other materials and covered over with fill above to make a true tunnel (as opposed to an open trench), or 2) would be dug out completely underground, which would then leave a "ceiling" over its passageway formed of the naturally deposited soil. If the latter were the case, such a tunnel may or may not have been fitted with an underground "roof" of wood and/or other materials either to reinforce the strength of the "ceiling" of the tunnel or to keep loose soil and dust from falling down on people using it. In either scenario (1 or 2) such a tunnel may have had posts of wood and/or other materials (e.g.iron) to serve as shoring reinforcements.

Thus, given the operational definition of a tunnel considered here, the following hypothesis and test expectations were considered (test expectations are specific, tangible data that are to be expected and are discoverable if the hypothesis is valid; Stickel, 1979)

If a tunnel(s) were present at the McMartin Preschool site, then the following test expectations should be present:

1. An opening(s) (entrance and/or exit) large enough for human passage should be present permitting access from the surface down into a tunnel feature.
2. Tunnel architecture should be linear or curvilinear (i.e. an elongated passageway leading in a definable direction(s)).
3. Tunnel architecture (especially depth or height and width) should be large enough to accommodate adult human passage.
4. The walls and/or uncovered soil ceiling of the tunnel should have "signatures" of markings indicating whether the tunnel had been dug by hand and/or by a machine (e.g. a backhoe).
5. There should be a compacted dirt floor (compacted by human foot traffic) distinguishable from surrounding non-tunnel soil which should not be compacted.
6. The tunnel could be open (i.e. traversable and unfilled).
7. The tunnel may be naturally (i.e. natural processes of erosion and soil redeposition) or artificially (by human action) filled in with soil. Such fill should be distinguishable from the natural soil matrix of the site in terms of color and/or by texture, and compaction (i.e. would be less compact than the soil forming the tunnel's walls, floor and ceiling).
8. The tunnel fill may have inclusions of:
  - A) Natural stones and/or other natural items or:
  - B) Artifacts and/or ecofacts
9. Although a tunnel of the type sought in this project may not be directly datable (e.g. in contrast to a construction date molded into the concrete of a railroad tunnel), the tunnel may be dated indirectly by the dates on artifacts contained within it if any are present.

The test expectations for a subterranean room would be essentially the same as for a tunnel. The exception would be for test expectations 1, 2 and 3 above which would be modified to reflect necessary doorway(s) into a room, that the shape of the room would not be too linear (as a tunnel) but would be "room shaped", ie. square, round, or ovoid, and that a room would be of sufficient dimensions (length, width and height) to be distinguishable from a tunnel passageway. A room would thus be of sufficient size to accommodate a number of people interacting in a face-to-face manner as opposed to a tunnel which (depending on its size) would provide restricted possibilities for human interaction. Since, on balance, one would expect human usage of a room to be more prolonged than in a tunnel passageway, artifacts catering to prolonged usage would be expected in such a room, perhaps in the form of chairs, couches, tables a lighting system, etc. These expectations were borne in mind during our search of the site.

Initial surveys would be conducted with remote sensing instrumentation. The author's experience elsewhere predicted that Ground Penetrating Radar, rather than the terrain conductivity meter used in the previous survey, would be effective for anomalies beneath a concrete slab floor.

## Part II

### FINDINGS

The profile of an entrance/exit tunnel was discovered under the foundation of the west wall of the building (Classroom #4, see map, p. 13, this summary). The signature of this feature was described and sketched by consulting geologist Don Michael, Ph.D. (p. 113). The feature was clearly distinguished by loose, disturbed soil and the artifacts contained within it. The outside margins had an inverted bell-shaped curve profile. The tunnel signature was established both by the sharp demarcation of soil color and texture, as well as by the exclusive presence within the cavity fill of assorted historic debris such as old cans and bottles, various metal fragments and small household items. The roof at that point was provided by the bottom of the concrete foundation. Inside the foundation a roof of soil was evident.

The profile was also demarcated by severed tree roots, the significance of which was described by professional tree surgeon Jerry Hobbs:

...running under the foundation from south to north was a large root which had been chopped off at the edge of where the large amount of cans, bottles, and plastic were being found...A growing root would have had to run in and through the cans and bottles but did not...The root, some 3" in diameter had been severed with a hand saw about 90% through, then pulled off, peeling the bark off the root. The peeled layer of the cambium layer had well established healing already in progress. New feeder roots had started to grow from the cut portion of the root, and attained lengths of 6" to 15"....A space of 59" to the north the roots pick up again, only these had been chopped off from the larger root and were dead. (The dead root) was about 1 1/2" in diameter and continued in the same 30 degree angle as the other root, ...the cambium layer was separating from the rest of the woody part of the root, indicating it was probably severed at the same time the green root that was attached to the tree was severed....Both the feeder root lengths and the healing of the cambium layer indicates that the root had been cut at a time of 4 to 6 years earlier. I feel my determination is accurate due to my experience of the planting and removal and care of some of the same kind of trees for more than 25 years. ..To me this is conclusive that with the inconsistent soil area, the plastic bag dated 1982 (see next paragraph) and the old bottles, cans and debris, were put in the ground after 1982, and it was not an old dump area as it appeared (Appendix iii, pp. 174-176).

A plastic sandwich bag was found under the foundation at a depth of 42" below the surface and 3-6" inside the wall line of the building. The bag was imprinted with Disney characters and the words: "c1982 Walt Disney Productions", along with a logo of a

school house with "Disney Class of 1982/1983" underneath. These factors led Dr. Michael to conclude "therefore, the cavity could be no older than 1983". (p. 84)

Due to the crucial location and dating of the Disney bag as evidence of recent disturbance, alternate hypotheses were examined. Could the bag have been artifactual not of a clandestine, buried tunnel but rather incidental to the parent's March 1985 dig or to the subsequent SRS excavation commissioned by the district attorney? After careful analysis of the parameters of each excavation, Dr. Langenwalter, senior author of the SRS study, concluded that since the parents' backhoe trench was no less than 137" from the northwest corner, it is clear that the plastic Disney bag was located by Hobbs in the virgin area between the SRS excavation and the parent's dig. In fact, it was recovered 7" south of the parameters of the SRS excavation and approximately 13" north of the parents' backhoe trench (p. 184)

The emphatic correlation of definitive observations for this tunnel entrance feature is especially significant in view of its location: the decision was made to explore this precise area because some of the children had stated that there had been animal cages placed along the wall and they had entered a tunnel under the cages at that point (cf. Langenwalter, et al, 1985: 13).

Excavations were conducted in the westernmost sector of Unit 1 in room #3. This site was selected because a GPR anomaly was detected through the concrete floor in an area next to and continuing up against the west dividing wall between classrooms #3 & #4. Several human-introduced artifacts were encountered adjacent to a 3 inch cast iron waste pipe running northward from the dig. The size of the artifacts ruled out their introduction by burrowing rodents (bioturbation) and their distribution was confined within a shallow, trench-like profile of different colored soil. This proved to be a mechanically dug trench to accommodate the waste pipe from the bathroom in classroom #3, as substantiated also by the signature characteristic of a backhoe. However, one aspect of the pipe and trench complex was uncharacteristic and unexplainable at the time of excavation: the stainless steel clamps connecting an angle of the waste pipe. These two clamps were notable in that they appeared to be brand new, with a very shiny silver color, lacking the patina expected of objects buried long underground. That apparent disparity of age or use became more apparent as other clamps were unearthed elsewhere, all of which were considerably etched and discolored. There was no opening through the concrete floor which could have allowed for access to these clamps after the floor was poured, and there was no explanation for their like-new appearance if they had remained buried for the life of the structure.

A possible tunnel feature was excavated from the toilet areas in classroom #1 and the office. This feature was distinguished clearly by the color and compaction of the interior soil, which was much darker and more loosely compacted. The feature appeared to connect the area beneath the office and classrooms #1 and to proceed eastward toward the eastern outer wall of the preschool. Mr. Hobbs made a number of ancillary observations, summarized as follows:

The children stated that they had entered a tunnel from the south east corner of room 1. We dug down along the east wall of room one and the bathroom. As we followed the disturbed area south, it went under the wall into the now existing bathroom, after about 6 feet it made an abrupt right turn to the east and headed for the neighboring property. The children had told two different stories about this tunnel prior to the dig. One, that they had gone through the tunnel and come up in the house next door and two, they had come up in the garage, which blocked the house from the street. At any rate the tunnel went in that direction. I went to the house next door and followed the walk between the school and the house which were only about 4 1/2" apart. I went under the house and bellied my way toward the southwest corner of the house. After going about 20' I found an area inside the west wall of the house where the floor was cut out. If I remember correctly the area of the floor that was missing was 36" by 38" or 41", you could reach up and touch the bath tub which was exposed. The plumbing in that area appeared to be quite new. I went back to the school and continued to dig. The tunnel I had been following was now headed toward the corner of the house where I had found the hole cut in the floor. I was very close to the foundation of the house, I was sure, so I poked a hole up through to the surface. The hole I punched through was about 2' beyond the west wall of the house and about 1 1/2' outside the south wall of the house. This tunnel was in direct line with the cut out opening under the house.

In addition to the difference in soil composition, the tunnel feature was distinctive from the surrounding matrix and from some other tunnel features discovered later, in that it had been back filled with earth that contained virtually no large artifacts or ecofacts. It did contain numerous flecks of charcoal and carbon and pieces of plaster with green paint, which the excavators hypothesized might be the remnants of the green paint that had been applied to the school in 1984 or 1985 and possibly of the fire that had occurred within the building on April 8, 1984. The maximum depth of the feature was 6 feet, and its excavated length was over 26 feet. The feature fulfilled 4 of the 5 test expectations as a tunnel, lacking only a well defined roof contour.

Several units for study were established in the adjacent vacant property (sidelot) and in the play yard adjacent to the school building, in reference to both the prior archaeological projects and anomalies detected by GPR. These digs turned up apparently irrelevant artifacts such as the cesspool of the earlier residence on the sidelot and some irregular chunks and slabs of concrete. A more surprising finding was the absence of toys or other playthings that would be expected from the use of the excavated area of the preschool play yard as a children's sand box. The only exception was a 3 1/4 inch plastic plate bearing the hand-drawn five-pointed stars of differing sizes. These stars were drawn by an adult with a careful and deliberate style inconsistent with childrens drawings.

The most definitive discoveries came to light through following the vein of artifactual debris from the tunnel portal under the west wall of Classroom #4. An apparent tunnel signature veered southward once inside the foundation. The width and direction were clearly indicated not only by the abundance of historic artifacts contained within it, but also the soil color of the fill matrix was distinctly darker than the surrounding natural soil.

The average width of the tunnel feature was greater than 4 1/2 feet as it extended on the diagonal completely across unit 1 and under the concrete floor to the western edge of Unit One.

Proceeding southward, the tunnel feature widened at one point to the extent that it appeared less tunnel-like and more like a room. Also at that point a layer of plywood roofing material along with tar paper and roofing nails was found at the top of the tunnel fill material. Underneath the plywood and tar paper was a continuing abundance of bottles, wood and other debris. It became obvious that this densely packed debris-filled area was quite large in relation to the tunnel passage previously described. This room-like feature extended southward to the area under the doorway to Classroom #4 and the sidewalk corridor beyond.

It was observed that the layer of plywood and tar paper, which may have served as a kind of roof for the room-like portion of the feature, continued in an arc to the east across the east side of the southeast corner of trench Unit 1. There were obvious soil color and density demarcation lines at the roof, floor and sides. The overburden of soil forming the existing roof of the tunnel at that point was 22 inches thick (measuring from between the bottom of the concrete floor and the demarcation of the former tunnel cavity). The walls of this wider area bore shovel mark "scars". These "scars" indicated that the tunnel had been dug out with hand tools rather than mechanized equipment.

The depth of the tunnel in the room-like area was a little more than 6'8" which would have permitted most adult males to stand upright. In contrast, the depth of the tunnel in the passageway leading up to the room-like feature was more shallow, at an average of 5'11", which would have required most adult males to bend over when walking through the passageway.

A major artifact was found buried within the room-like feature: an intact rural, roadside style mailbox. This mailbox had the name and address of the last occupants of the house that stood on the adjacent lot until it was torn down in 1972.

The tunnel direction changed dramatically beyond the room-like area, turning to a "dogleg" headed acutely eastward. A crucial dilemma was imminent at this point. With only two days left to complete all excavation, there was not time to both explore the full dimensions of the possible room and to follow the ultimate extent of the tunnel. Although important data may well have been missed by not fully exploring the "room", it was considered more important at that time to redirect full effort to explore the tunnel. It was hoped that the more the tunnel feature could be defined, the more possibilities there would be for making correlations with the eyewitness reports of the children.

In digging out the tunnel fill eastward under the concrete floor, it became apparent that the line of the tunnel continued across classroom #4 and into the cut through the floor at Unit 1. The width of the tunnel was still about 3 feet. The height of the tunnel feature was unlike the "room" area, returning to the 5 foot, 11 inch average height of the western passageway. Some boards and a few tin cans were still found in the tunnel fill

within Unit 2 but they petered out until no more major artifact inclusions were encountered beyond about three fourths of the way across the unit.

The tunnel feature ran completely across Classroom #4, up to the foundation under the dividing wall. The overburden "roof" above the tunnel gradually diminished as the tunnel came closer to the surface until, at the point where the tunnel went under the concrete foundation, there was no soil overburden or roof. Consequently the bottom of the foundation intruded into the tunnel's roof at that point. At the precise width of the tunnel, at the point where it crossed under the dividing wall between Classrooms #4 and #3, the bottom of the concrete foundation was slightly arched. The depth of the foundation at the centerpoint of the tunnel passage was some 25 inches below the concrete floor. The depth of this foundation, which gave it enormous strength, is curious, given that it supported only a structurally insignificant secondary dividing wall between the two classrooms.

At that point it became obvious that the initial Ground Penetrating Radar survey had actually detected the tunnel at the locus of its crossing under the dividing wall. Indeed, the GPR was successful in detecting the tunnel feature on both sides of the dividing wall beneath the concrete pad floor. The two corresponding anomalies had been the reason to cut through the concrete pad floor to create Classroom #3, Unit 1 and Classroom #4, Unit 2 in the first place. And it was the reason the two units were directly aligned with each other, even though on opposite sides of a then-existing wall.

An unexpected discovery was made in the tunnel directly under the foundation between Classrooms #4 and #3. Four large containers were found in situ standing upright and directly beside each other. Curiously, they were not found on the floor of the tunnel but had been placed on a de facto "platform" of fill halfway up to the arched foundation.

The four containers were comprised of two blue enameled metal cylindrical pots; one tall, cylindrical crockery pot; and one rusted cast iron cauldron. The smaller of the two metal pots had a loose, makeshift handle of twisted wire. The larger metal pot had one original looped metal handle still fixed to one of its sides. The crockery container, stamped "Red Wing Stoneware Co.", was of a glazed tan color and had a decoration of one cobalt blue leaf and three stems painted on one side.

Further work revealed that the tunnel ran completely under the dividing wall foundation arch and eastward under Classroom #3. Digging backward and downward, it was then possible to observe a profile of the tunnel feature. The bottom of the tunnel was slightly U-shaped and clearly distinguishable from the lighter natural soil matrix below, which unlike the tunnel fill, contained some lighter and darker-colored small areas of rodent burrow disturbances.

Just 12 inches eastward of the dividing wall foundation another profile was defined. The tunnel again had "roof" of compacted overburden soil. Therefore an inverted U-shaped soil boundary was very clearly defined both in soil color and texture at the top of the tunnel profile.

Unlike the tunnel passages in Classroom #4, there were virtually no inclusions of artifacts in the tunnel fill within Classroom #3. Following the tunnel fill, the team reencountered the area of the metal waste pipe with the shiny pipe joiner clamps previously described. Following the tunnel fill eastward down trench Unit 1, it became apparent that the original tunnel virtually coincided with the size and length of the concrete cutout for that unit. This coincidence was the reason the tunnel was not discovered in the initial excavation of Unit 1. Digging downward precisely within its margins, it had been impossible to visualize the lateral signature of the tunnel.

Summarizing the excavation under Classrooms #3 and #4, there was a clearly defined tunnel whose data conformed to virtually all of the test expectations for the discovery and identification of such a tunnel. Indeed, it had been possible to follow the orientation of the tunnel for some 22 feet in Classroom #4 and for an additional 28 feet where it went in a east/west direction across classrooms #4 and #3. Thus the explored portion of the tunnel extended for a total of more than 50 feet.

With what little time there was left, attention was directed to Unit 3 of Classroom #3, which contained the intriguing remains of wood posts. These were found in situ, still in upright positions. Both posts were the remains of 4 X 4" timbers. The first one had been burnt. The second post was more intact, and only slightly burnt. Due to their relationship parallel to the east wall of the preschool and relative to wood fragments to the north in Unit 2 found earlier by Jerry Hobbs, these posts seemed to be spaced at regular intervals, extending from north to south in classroom #3. They may have been part of a shoring system for an underground passageway but there was no longer any time to explore for corroborative evidence.

In addition to discoveries underground, there were observations within the building itself which remain unexplained. A stack of twenty or more unused, light brown asphalt tile, appearing to be exactly the same as the tile used throughout the entire interior floor of the preschool, was discovered in the cupboard under the kitchenette sink in the office (p. 181). This discovery raised the question of whether or not the floor had been patched, or perhaps replaced in its entirety. Several sections of tile had been removed by the District Attorney's investigators in 1985 but the black mastic under the tile remained on the concrete slab. In order to check the preschool floor thoroughly for any patches or replaced areas of concrete, all of the tile would have to be removed and the mastic would have to be sandblasted or chemically removed. Because of financial and time constraints, these ideas were quickly abandoned in favor of trying to locate and identify any tunnels or rooms under the school.

Several days into the project one of the workers noticed that Classroom #3 did not have a door knob (p. 182). Instead, there was a single cylinder dead bolt with a flip latch on the inside, with only a keyhole on the outside. Once latched from the inside, there could be no entry to this classroom without a key. The face of this door was obscured from outside view due to its placement within the inside corner of the L shape of the building, recessed behind the north wall of Classroom #2. The absence of any exterior knob was

thus undetectable whenever the door was open, since the face of the door backed onto the deadend of the hallway.

Several parents remembered that when they were present at the school during operating hours, the door had always stood open. A mother who had occasion to visit with her two-year-old son stated that whenever she was there the toddler would run into the vacant room and reach for the children's paint and brushes. The child did this several times and each time the director would scold the mother and tell her it was not safe to let her baby go into the room because there were too many things he could get into. Yet the door was never closed.

## **CONCLUSIONS**

The project determined the existence of two extensive tunnel complexes beneath the concrete floor of the McMartin Preschool building. One, toward the south, was consistent with the location and function described by children; it appeared to connect the interior of the preschool with the adjoining triplex structure and it had a distinct signature where it exited under the foundation of the east wall. Since it lacked dateable artifacts and a consistent demarcation of floor profile, it was classified conservatively as a "possible" tunnel.

The feature that conforms scientifically to the predetermined attributes as a tunnel was the complex on the north. This tunnel feature was clearly distinguished from the other subsurface features encountered during our excavations at the site. The northern tunnel feature conformed to virtually all of the test expectations, as follows: 1) An identified entrance; 2) The architecture was both linear and slightly curvilinear; 3) The architecture was large enough for adult human passage; 4) There were characteristic scars indicating that it had been dug by hand; 5) The feature had a compacted dirt floor; 6) The tunnel was found not open; 7) The tunnel had been completely, artificially filled in with fill which was distinguishable on the basis of color, texture and compaction from the original soil deposit at the site; 8) The fill contained inclusions in the form of a large number of artifacts, and 9) the probabilistic dating of the tunnel can be estimated by recovered artifacts.

The following seven factors determine probable age. First, it is unlikely that the bright, stainless steel straps had been placed on the pipe in 1966, when the structure was built. Second, the placement of the mailbox most probably dates to the time following the destruction of the neighboring house in 1972. Third, the Disney bag has a date of 1983, which indicates that the tunnel fill dates to that time or thereafter. Fourth, the arching of the foundation precisely over the tunnel was obviously a feature made to accommodate the tunnel and there is no other conceivable scenario to account for it. Fifth, the four large containers which were placed by hand into the tunnel fill indicate the use of the tunnel after the preschool was built. Given their positions under the foundation, there is no possibility that they would not have been knocked out of place and their intact glass bottle and jar contents broken when the trench was excavated in 1966 for the pouring of the concrete foundation. Sixth, the ceiling of the tunnel was simply too shallow to have

withstood human foot traffic on it in an unprotected state. If the tunnel feature had existed prior to the construction of the preschool, its covering or roof would have been so shallow that a person walking on the surface would have easily caved it in, thus exposing the tunnel. Finally, the soil deposit at this part of the property had been put into place and compacted at the time of the building construction. Therefore any holes or openings found in that area extending up to or near the surface would necessarily date to a time after 1966.

Therefore, given the evidence of the seven factors above, the time of the construction and use of the tunnel postdates 1966.

## **SUMMATION**

This report describes the efforts of a group of parents to explore the meaning of several issues raised by their children after attending the McMartin Preschool. Reports of the existence of underground passageways had not been confirmed in the limited exploration conducted by the office of the District Attorney. At the first opportunity of private access to the preschool property, these parents secured permission from the new owner to search more extensively for pertinent information. By engaging a highly recommended professional archaeological team, they hoped to bring scientific authority to whatever might be found or a definitive resolution for whatever was not to be found.

The present project started where the earlier investigation left off, re-examining the previous digs outside the school structure, using new technology to survey for possible anomalies beneath the floor of the structure, and then actually cutting through the concrete floor and scientifically evaluating the consistency and integrity of the underlying soil.

The results of the survey by Ground penetrating Radar proved consistent with discoveries of the subsequent excavations, all of which confirmed not only the basic descriptions of children but also specific details of location, interior features and putative function.

The McMartin Tunnel Project confirms that a functional pattern of tunnels once existed under the McMartin Preschool, that the tunnels provided access outside the walls of the structure, that they must have been constructed after the structure was built in 1966, and that they were subsequently completely repacked with extraneous soil and implanted artifacts at some time prior to May, 1990. While this project had no way of determining who dug these tunnels, or for what purpose, the discoveries stand in stark contrast to the skeptical position that the children only imagined what they described as activities underground.

If the stories of the children were bogus fantasies, there is no excuse for the tunnels discovered under the school. If there really were tunnels, there is no excuse for the glib dismissal of any and all of the complaints of the children and their parents.

## REFERENCES

Langenwalter, Paul E., Kevin Peter, Jane King, and Robert Beer, 1985. *Report on a forensic archaeological investigation conducted at the Goldstein property at Manhattan Beach, California*. Report prepared for the Los Angeles County District Attorney. Unpublished report on file at the contracted firm of Scientific Resource Surveys, Inc. Huntington Beach, California, and at the Office of the District Attorney.

Stickel, E. Gary, 1979. *More on Theory Building in Archaeology*. **Current Anthropology**, Vol 10, pp. 621-622

<http://web.archive.org/web/19981202141530/http://www.ultinet.net/~harwer/archaeol.htm>