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A Paul Schumacher Miscellany

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LOST AND FOUND

The birth of California archaeology and the systematic exploration of California's past can arguably be traced to the 1870s and (to a large extent) to the work of three very different men—Stephen Bowers, León de Cessac, and Paul Schumacher. All three carried out the majority of their excavations primarily on the Channel Islands and along the Santa Barbara coast, and all three generated extensive, often poorly studied collections that are presently curated in institutions largely outside of California.

By modern standards, Schumacher could arguably be considered the most influential and technically competent of the three—during the eight-year span of his active career in California, he produced a number of significant contributions in major international venues that achieved wide recognition and were illustrated by meticulously-rendered maps and drawings of the sites he excavated and some of the artifacts he recovered. Most of Schumacher's papers are available in translation, are well-known, and are frequently cited in the literature; the brief article presented here is an exception, in that it does not seem to have ever been reprinted or cited by local scholars. It was originally published in the Popular Science Monthly [10:353–56, 1877].

The second item presented below (in translation) is a brief notice of Schumacher's death that appeared in the Revue d'ethnographie de Paris [3:461, 1885]; it explains his sudden, seemingly inexplicable disappearance from the intellectual scene, and provides some interesting details about his life. Strangely, his death appears to have gone largely unremarked by the majority of his contemporaries, and none of the scholarly journals to which he contributed appear to have been aware of his passing.

The final item presented here is a list of Schumacher's presently known publications. Hopefully, it may help inspire the kind of biographical attention that Paul Schumacher's life and scholarly contributions so richly deserve

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ABORIGINAL SETTLEMENTS OF THE PACIFIC COAST

If we investigate the condition of the ground upon which we now find the ruined settlements of a former people

on this coast, it cannot fail to convince us either that all such stations had been established on sandy ground, or that the ground had been artificially changed by sand carried thither when it was rocky or hard. Sandy soil was a necessity, that they might employ their rude and imperfect tools in the erection of houses partially dug in the ground and surrounded by embankments. It was also a requirement for cleanliness and health, owing to its absorption of moisture in the rainy season. Overgrown or firm sandy ground was preferable to bare, loose sand; but even the drifting dunes offered them a better choice than the dark humus intermixed with rock. Other requirements of a well-located *rancheria* were: proximity of potable water, a commanding view, the outlying rocks bearing eatable mollusks, fish in the adjoining kelpy waters, and game in the neighboring country. Water in small rivulets and springs was preferable to larger streams and rivers, unless these were stocked with fish. A commanding view was subordinate to the condition of the soil and the proximity of water, especially on the islands in Santa Barbara Channel, where no surprising enemy was to be guarded against; there a small boat-landing was one of the main considerations, because the islander's sustenance was mainly derived from fishing, hunting on the water, and barter with the dwellers on the mainland. To gather shell-fish the aborigines often went long distances, which called into existence temporary camps wherein we hardly find anything but layers of shells and some burned beach-rocks, indicating former fireplaces, scattered in small clusters over their surface. The mollusks, after their shells had been removed, were dried in such temporary camps for easier transportation to distant villages.

But let us examine one of the sites of such aboriginal villages, commonly termed "shell-heaps" or "shell-mounds," bleached shells being by far the larger and more conspicuous part of their remains. I will select one of the many stations which I have investigated for the Smithsonian Institution during recent years. Its location is near a narrow inlet, called Tinker's Cove, on the island of Santa Cruz, one of the group in the Santa Barbara Channel (Fig. 1). It possesses all the requirements of an aboriginal settlement, only the game-ground is wanting,

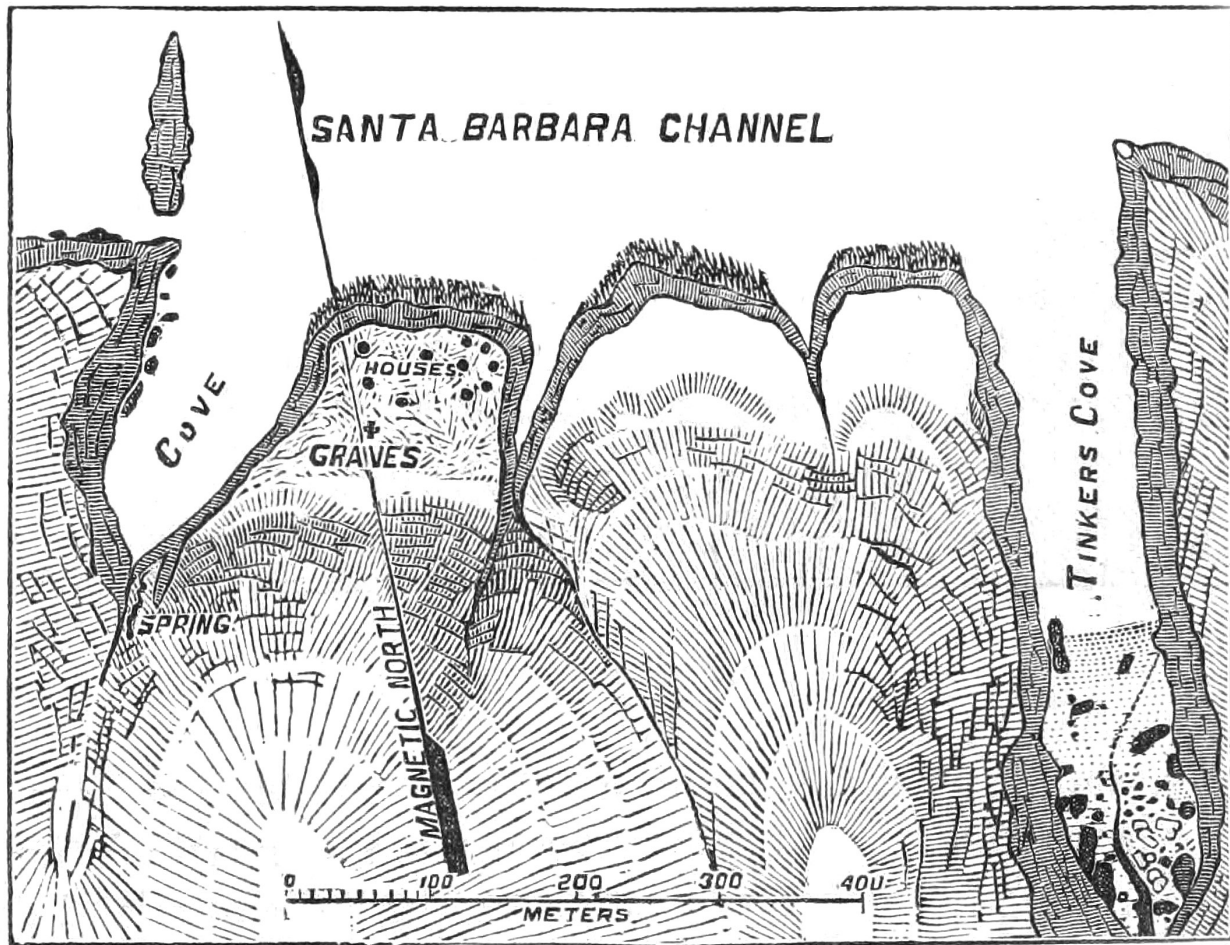


Figure 1.

as no animals save a small gray fox, and several species of land-birds, exist on the islands. The ground upon which the station is located is of a rocky, irregular structure, mostly bare and destitute of vegetation; a cove, affording an excellent boat-landing, adjoins to the westward of it; outlying rocks, of which but few appear in the sketch, are covered with edible shell-fish; a mass of kelp and sea-weed grows in the adjoining waters, and is thickly stocked with fish; a spring of potable water is found in the deepest part of the cove. Sand is found only at a distance of between four and five hundred yards to the eastward, in a small hidden beach of the narrow fiord of Tinker's Cove, which is of very difficult access by land, as the sides of the inlet form walls of over one hundred feet in height, and in larger quantities farther away to the westward of the station. It is, therefore, evident that the layer of sand covering its rocky ground is artificial, and placed there by the aborigines, not a natural deposit accumulated by

drifts, etc. The mound begins at the brink of the bluff, some thirty feet above high-water mark, and extends back over a flat of a little more than one hundred yards, toward the ascending hill, diminishing gradually in height, and ceasing entirely before the rocky outcroppings are reached, whence the ground rises rapidly into a ridge, forming a spur of the backbone of the island (Fig. 2). Investigation revealed the artificial formation to consist of a layer of shells, most of which are still found among the living species on the island, bones of fish, sea-fowl, seal, and sea-lions, and whales, dogs and foxes, and a great mass of cobble-stones of all sizes, especially of the size of a fist as used for fireplaces, and chippings of different varieties of chert, chalcedony, jasper, quartz, etc. — rocks suitable for the manufacture of knives, arrow-heads, spear-points, and other cutting tools, which do not occur *in situ* on the island and had to be imported. The whole is mixed with a large quantity of sand, reaching to a depth

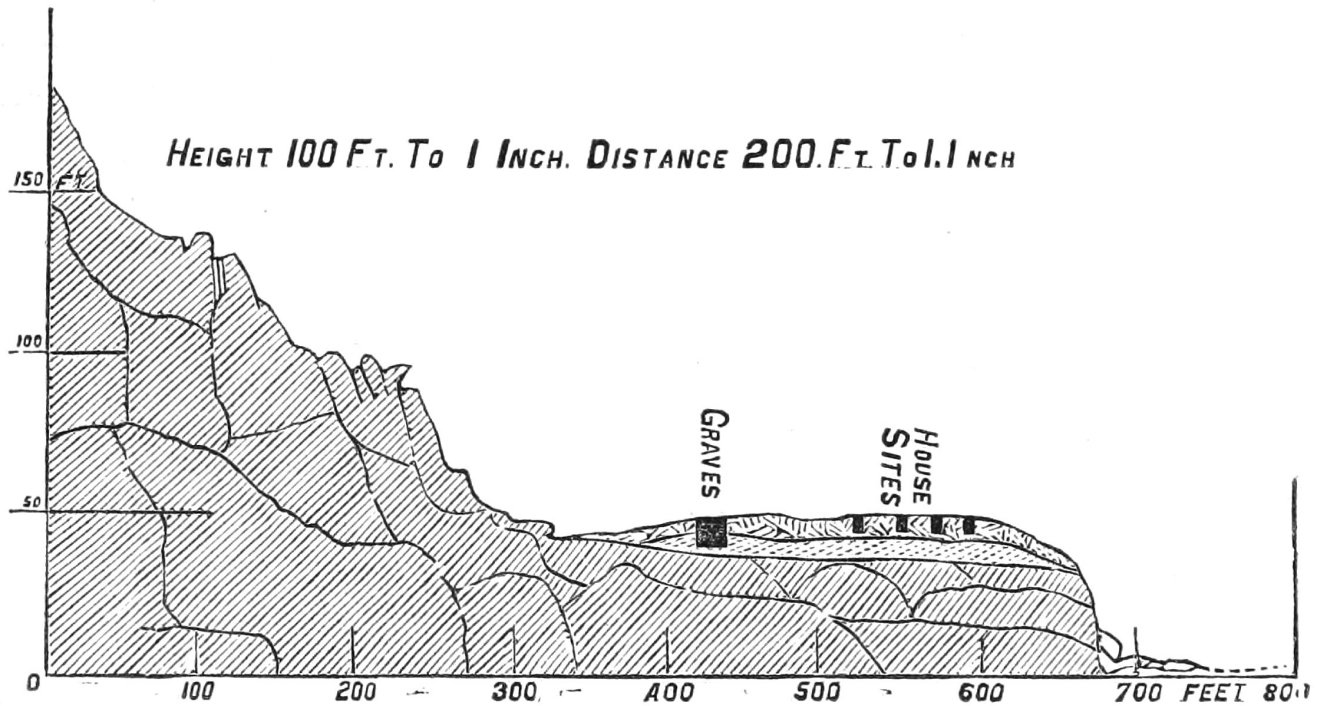


Figure 2.

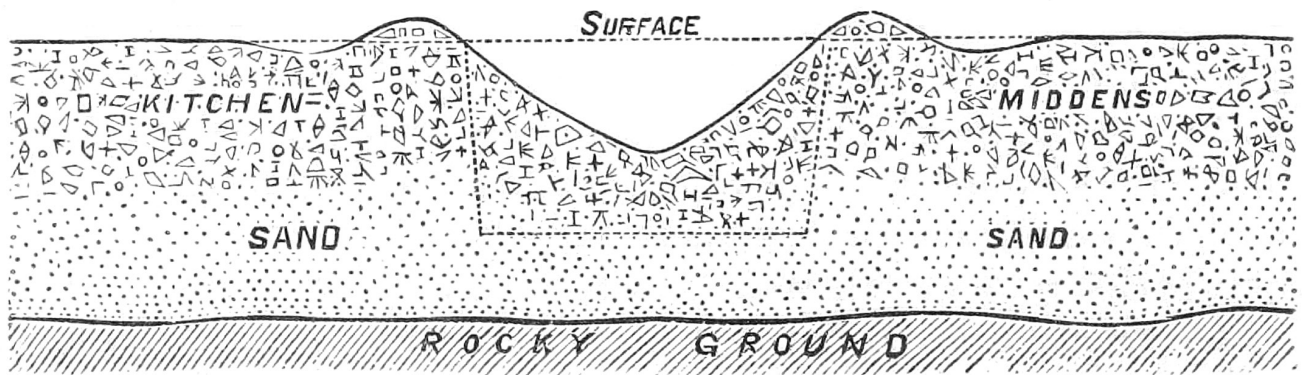


Figure 3.

of about five feet at its deepest part, where formerly the dwellings stood. Underneath the layer of animal remains, the *kjökken möddings*—kitchen-middens or cooking *débris*—of a former people, pure sand is met in which we find but few valves of an edible shell-fish, or beach-rocks showing marks of fire, or such marks as are made by human hands, and were probably introduced while the dwelling-mound was raised preparatory to the erection of the hut. The sand—which was either carried there overland, or in canoes from some neighboring sand-bank—attains a depth of about three to four feet, and is

deepest around the circular depressions of the house-sites, indicating the embankments which had been raised around the huts. The section, Fig. 3, represents a site of a former dwelling as now found, and its original depth, as indicated by broken lines, may occasionally be traced by still remaining upright boards of the former subterranean inclosure. After the erection of the dwellings, the accumulation of the *kjökken möddings* began to spread all over the town-site, but was kept imbedded in sand by fresh supplies, thus raising the level of the village gradually, and increasing the depth of the subterranean

part of the hut until the latter was deserted, or built over with a new structure. Near the houses, where in all probability the cooking *debris* had first been deposited, it is now and then found in heaps almost destitute of sand; but, no doubt, after a large quantity had thus been accumulated, it was spread over the ground of the town, evened, and smoothed by layers of sand. The proportion of sand mixed with the cooking *debris* is about one-half the weight of the whole mass. The size of a town-site varies from about 100 metres in length and width, like the one illustrated in the figure, to 1,200 metres, or three-quarters of a mile, in length, and from 100 to 300 metres in width, the extent of *Os-bi*, a *rancheria* in Santa Barbara County, about five miles south of Point Sal, which is the largest shell-mound derived from permanent habitation thus far explored on this coast.

The same features of an aboriginal settlement we observe in Oregon, 1,000 miles to the north. If we take, for instance, the ruined settlement of the *Chet-e-shin*, situated on the commanding elevation of the north bank, and near the mouth of Pistol River: in front the wide ocean expands, with a number of large outlying rocks; Pistol River washes the base of the bluff upon which the station is situated; its waters are stocked with trout, and, in certain seasons, abundantly with salmon; to the left, or eastward, a mountain-brook empties into the river at the foot of the *rancheria*, and a spring issues between the upper and lower town-sites; back of the coast the country extends in a gradual rise toward a steep and heavily-timbered ridge, beyond which it becomes almost impenetrable, owing to thick forests and their undergrowth, and vines, the safe home of elk and bear. The rocky ground upon which the town was located is covered with a deposit of sand, of which the neighboring beach offers an abundance, and *kjökken möddings* of great age in its lower layers, with that peculiar mouldy, ash-like appearance, sprinkled with particles of decayed shells, so characteristic of an aboriginal settlement.

It is evident that such a ground, needing artificial foundation for the establishment of a town, was not suitable either for a burying-ground site; we must, therefore, look for the graves of these people within the artificial mounds. There is an exception to this when the ground is naturally sandy, or soft; then we must look for the graves within an easy distance, say about 150 metres, in some prominent place and in sight of the *rancheria*.

The graves consist of a pit varying between two and fifteen metres square, and not over two metres in depth, partitioned into smaller spaces by whales' bones and slabs of stone, or by wood. On the islands the gigantic bones of the whale are almost exclusively used; while, on the neighboring mainland, limestone, which splits board-like into slabs, and also whales' bones, and pine and red-wood, are used. Graves of this description have been found in California south of San Francisco, while in Oregon the mode of burial is different, the interment being either made in detached graves, or in houses previously demolished by fire.

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NECROLOGY

The engineer Paul Schumacher, well known for his interesting research on the peoples of California, was born in Hungary on April 10, 1843. Arriving in New York at the age of twenty-two, he later reached San Francisco, where he found a job with the United States Coast Survey. In 1875, the Smithsonian Institute charged him with conducting systematic explorations of Indian antiquities along the Californian and Oregonian coasts, which he related in a series of very interesting articles in both English and German, published in *Archiv für Anthropology* (Vol. VII, p. 263; Vol. VIII, pp. 217 and 223; Vol. IX, pp. 243 and 249), *Mittheilungen de Vienne* (Vol. VI, p. 287), *Annual Reports of the Smithsonian Institution* (1873 and 1874), *Peabody Museum Annual Reports*, and finally the *Geological and Geographical Survey of M. Hayden* (Vol. III, No. 1).

The collections described in his various memoirs are now almost all to be found in the National Museum of the United States.

In 1880, Mr. Schumacher settled in Guaymas (Sonora) in order to practice his profession as an engineer. During a stay at the S. Antonio copper mine, he died following a virulent fever on May 22, 1883 at the age of 40.

Although I never actually met Mr. Schumacher, we shared an active correspondence. He sent me a photograph [Fig. 4] of himself, depicting an honest, intelligent-looking man about six feet in height.

Ch. HAU.

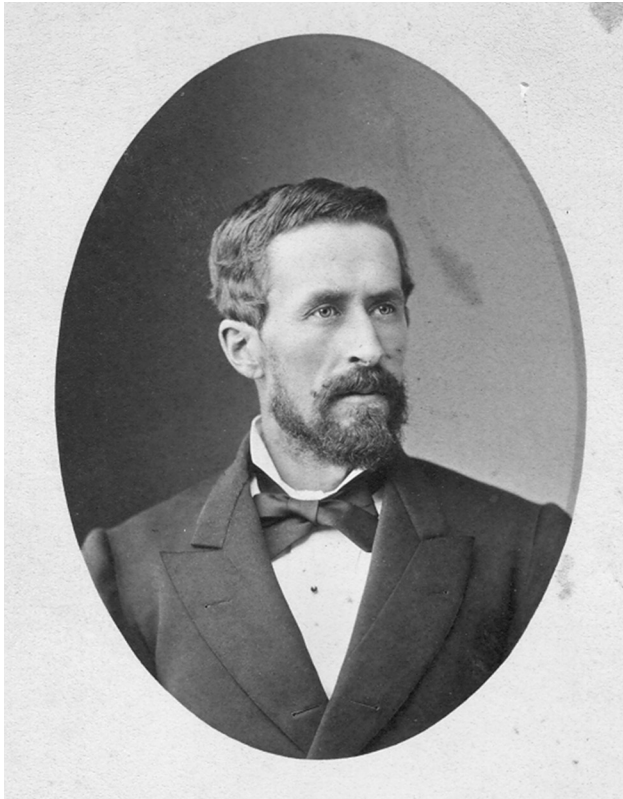


Figure 4. Photograph of Paul Schumacher. Inscription on back reads “To Mr. León de Cessac. Yours very truly, Paul Schumacher. Camp San Antonio, Cal. Dec. 29th — 78.”
 [Courtesy of the History Center of San Luis Obispo County.]

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**LIST OF PUBLICATIONS
 OF PAUL SCHUMACHER**

1874a Remarks on the Kjukken-moddings on the Northwest Coast of America. In *Annual Report of the Smithsonian Institution for 1873*, pp. 354–362. Washington, D.C.: Government Printing Office.

1874b Die Erzeugung der Steinwaffen. *Archiv für Anthropologie* 7:263–266.

1875a Etwas über Kjukken Möddings und die Funde in alten Gräbern in Südcalfornien. *Archiv für Anthropologie* 8: 217–222.

1875b Some Remains of a Former People. *Overland Monthly* 15(4): 374-379.

1875c Die Anfertigung der Angelhaken aus Muschelschalen bei den früheren Bewohnern der Inseln im Santa Barbara Canal. *Archiv für Anthropologie* 8: 223–224. [Reprinted in translation as “The Manufacture of Shell Fish-Hooks by the Early Inhabitants of the Santa Barbara Channel Islands” in *Reports of the University of California Archaeological Survey* 50:23–24, 1960.]

1875d Ancient Graves and Shell-Heaps of California. In *Annual Report of the Smithsonian Institution for 1874*, pp. 335–350. Washington, D.C.:Government Printing Office.

1876a Beobachtungen in der verfallenen Dorfern der Urvölker der pacifischen Kuste von Nord-Amerika. *Archiv für Anthropologie* 9:243–249.

1876b Das Geradmachen der Pfeilschafte. *Archiv für Anthropologie* 9:249–250.

1876c Beobachtungen in den verfallenen Dörfern der Ureinwohner an der pacifischen Küste in Nord-amerika. *Anthropologische Gesellschaft in Wein. Mittheilungen* 7: 287–303. [Reprinted in translation as “Observations Made in the Ruins of the Villages of the Original Inhabitants of the Pacific Coast of North America” in *Reports of the University of California Archaeological Survey* 50:19–23.]

1877a Methods of Making Stone Weapons. *Bulletin of the United States Geological and Geographical Survey of the Territories* 3:547–549. Washington, D.C.: Government Printing Office. [A translation of 1874b.]

1877b Researches in the Kjukkenmoddings and Graves of a Former Population of the Coast of Oregon. *Bulletin of the United States Geological and Geographical Survey of the Territories* 3:27–35. Washington, D.C.:Government Printing Office.

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1877d Aboriginal Settlements of the Pacific Coast. *Popular Science Monthly* 10:353–356.

1878 Ancient Olla Manufactory on Santa Catalina Island, California. *American Naturalist* 12(9):629.

1879a The Method of Manufacturing Pottery and Baskets among the Indians of Southern California. *Annual Report of the Peabody Museum of American Archaeology and Ethnology* 2: 521–525. Cambridge.

1879b The Method of Manufacture of Soapstone Pots. In *Geographical Surveys West of the One Hundredth Meridian, in charge of George M. Wheeler, Vol. 7, Part 1: Reports upon Archaeological and Ethnological Collections from the Vicinity of Santa Barbara, California*, Frederick W. Putnam, ed., pp. 39–41. Washington, D.C.: Government Printing Office.

1880 The Method of Manufacture of Several Articles by the Former Indians of Southern California. *Annual Report of the Peabody Museum of American Archaeology and Ethnology* 2:258-268. Cambridge.

1882 An Ancient Fortification in Sonora, Mexico. *American Antiquarian* 4(3):227–229.