34. ARCHAEOLOGICAL EXCAVATIONS ON THE FARALLON ISLANDS, CALIFORNIA

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Introduction

The Farallons are a group of small islands situated approximately 30 miles west of the Golden Gate off the central coast of California. South Farallon, the largest of seven in the group, was found especially attractive to a variety of sea birds and sea mammals. Because of the congregations of the Southern (or Guadalupe) Fur Seal (Arctocephalus townsendi), the Southern Sea Lion (Zalophus californianus), and the Sea Otter (Enhydra lutris), on and about the islands, the Farallons early became of economic significance to European explorers and colonists. One of the earliest landings by Europeans may have been made by Sir Francis Drake on July 24, 1579 (Heizer, 1947, p. 292). He stopped there for provisions, obtaining seals and birds.

After the establishment of Fort Ross by the Russian-American Fur Company in 1812, under Ivan Kuskov, the Farallons were visited by the Russians. "Spasmodic sealing went on until 1818...[in this year]...Kuskov...decided to establish a permanent station on the south east Island [farallon]..." (Haase, n.d., p. 79). "The Farallon station was abandoned...1838..." (op. cit., p. 82). The Russians sold Fort Ross and left California in 1841 (Bowen, 1951, p. 323).

Though somewhat prone to exaggeration Corney (1896) has made some interesting observations with respect to the Farallon Islands which he visited, according to his statement, in 1817.

> On the 18th of August, 1817, we completed our work here, (Bodago), weighed the anchor, and stood away for the Farelone rocks of islands, in the latitude of 37°40' North, and longitude 122°20' West. Next day we ran close to the rocks, and I went on shore to look for fur-seals. On landing we found plenty of hair seals, but very few fur; we knocked down a few of them, and brought them on board, with a number of young gulls, which were fat and good. We then made sail towards a larger group of islands, where also we landed, and were surprised to find about thirty Russians and Kodiacks with their wives. They had a flag-staff erected, but showed no colours. Their houses were built of stone, and they seemed very comfortable; they remain here for the purpose of collecting fur-seals and drying the flesh of the sea-lion, which is quite as good as Spanish jerked beef. In fine weather, a skin-boat comes from Bodago with a supply of fresh water, there not being a drop on the islands, and, in return, takes what meat and skins have been collected. The people have no means of leaving the island, having no boat, nor materials to build one. Finding we could do nothing here, we took on board a good stock of seals and gull's eggs, also plenty of young gulls. (pp. 74-75).

It will be noted that the date for the occupation of South Farallon by the Russians and Kodiak Islanders ("Aleuts"?) was previous to the 1818 date presented by Haase (n.d.). Since it is but a matter of a year or so it is not particularly significant for this present report.

Upon the discovery of gold in California in 1849, and the subsequent tremendous influx of gold-seekers to San Francisco, the Farallons were visited by groups of men who gathered bird's eggs to feed the newcomers. "It is recorded that in 1853 one boat in two days gathered 120,000 eggs, which were sold for one dollar per dozen" (Hanna, 1951, p. 301). Eggs were collected until such action was prohibited in 1903. A light station was established on South Farallon sometime between 1852 and 1855 (loc. cit.). In 1858 an aperature to a sea cave was bricked-up to make a small passage through which air, compressed by violent wave action through the cave mouth, could be channeled. A locomotive whistle was mounted upon this bricked air passage to provide a warning signal to ships approaching South Island (loc. cit.; fig. 4).

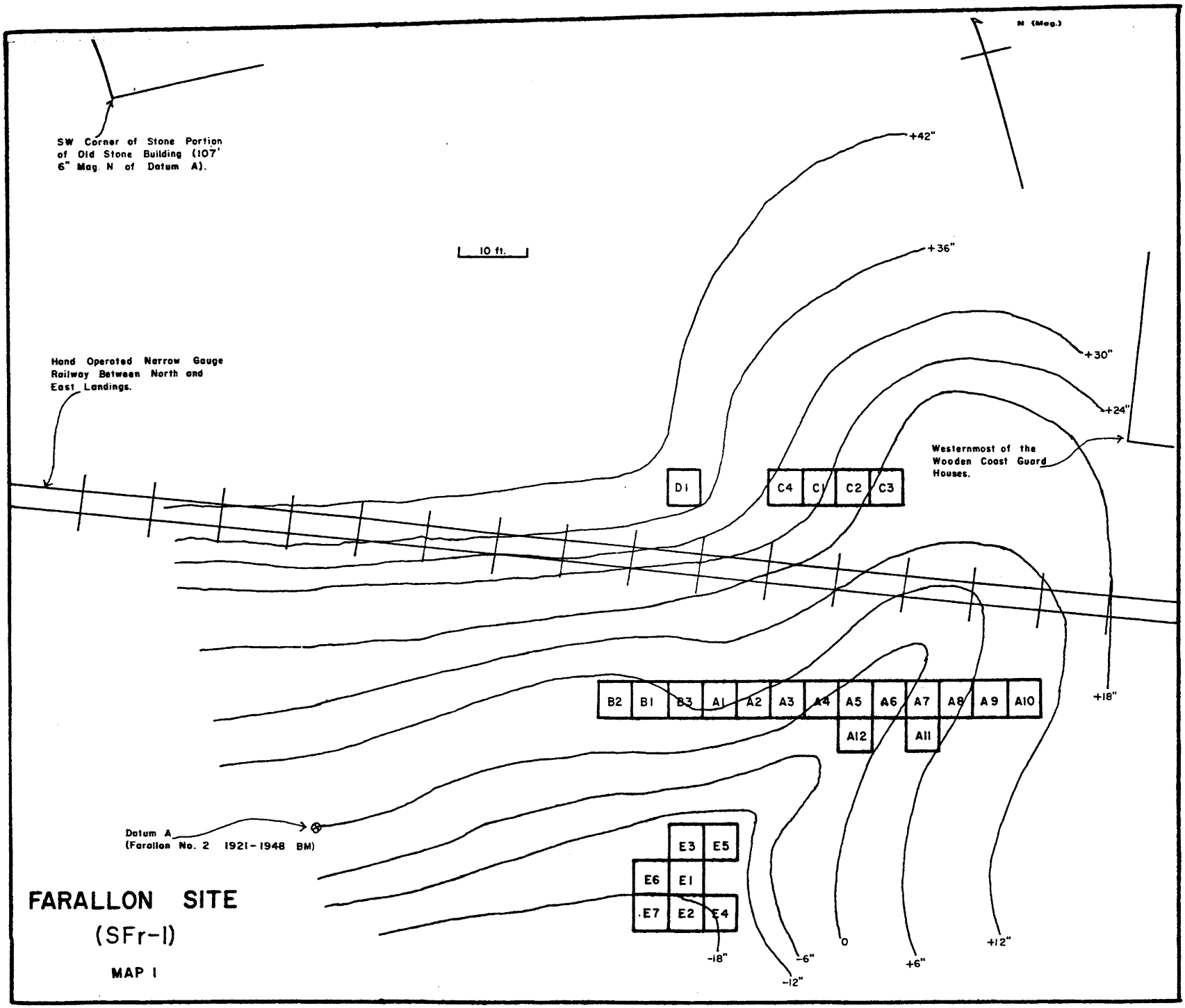
Since the Russians were known to have employed people whom they called Aleuts (Ogden, 1941, p. 45 and p. 195, note 2) in their sea hunting activities at the Farallons, and since the station on South Island was manned primarily by these sea hunters (and possibly by Indian wives from the Pomo villages at Fort Ross) it was decided by the University of California Archaeological Survey that investigations on South Island might be of considerable historical significance. It was hoped that information could be obtained which would add substantially to the knowledge of the Russians and Aleut hunters in California. With permission obtained from, and transportation provided by the U. S. Coast Guard, 12th Naval District, San Francisco, a party of four made archaeological investigations on South Island. This work was done over a nine day period during the month of April, 1949. Those participating in this archaeological project were Franklin Fenenga, the UCAS archaeologist at that time, Francis A. Riddell, then the assistant archaeologist, Arnold R. Pilling, and Ynez Haase, students in Anthropology and History, respectively, at the University of California, Berkeley. Several weeks previously Fenenga and Haase had made a one-day exploratory trip to South Island on the Coast Guard supply ship. It was at this time that the site which was subsequently excavated (SFr-1), was found.

All specimen numbers are those of the University of California Museum of Anthropology, all site designations are those of the U.C. Archaeological Survey.

Notes on the Excavation of SFr-1

Datum A (with an arbitrary elevation of 0.0 ft.) was established at bench mark "Farallon No. 2, 1921, 1948" (Map 1). Datum B was established 60 feet east (mag.) of Datum A, and Trench A oriented on a line 15° south of east. All pits were laid out in five foot squares.

Trench A: In Pits (squares) 1 and 2 the depth of the midden deposit averaged approximately 12 inches. The deposit, however, tended to become more shallow toward the east end of the trench. Pits 3 and 4 averaged a depth of about six inches. In all four of these squares the animal bone was heavily concentrated, although it became less so toward the east end of the trench.


N (Mag.)
SW Corner of Stone Portion of Old Stone Building (107' 6" Mag. N of Datum A).
10 ft.
+42"
+36"
+30"
+24"
+18"
Hand Operated Narrow Gauge Railway Between North and East Landings.
Westernmost of the Wooden Coast Guard Houses.
D1
C4
C1
C2
C3
B2
B1
B3
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A12
A11
Datum A
(Farallon No. 2 1921-1948 BM)
E3
E5
E6
E1
E7
E2
E4
-18"
-12"
-6"
0
+6"
+12"
FARALLON SITE
(SFr-1)
MAP 1

Bones of sea mammals (seals and sea lions) predominated, although bird bones were nearly as abundant. One fragmentary elk femur and several fragmentary long bones of deer were also recovered in this trench.

Pits 1 to 4 yielded numerous stones, ranging from fist-size to head-size, as disintegration residue of the native granitic base material. Occasional fire areas were encountered in which burned bones were found, but no constructed fire places or fire pits were observed.

Trench A was extended eastward for a distance of 50 feet, to Pit 10. The deep bone deposit found in Pits 1 and 2 was lacking, or nearly so, in the other squares of this trench. Pit 11 adjoined Pit 7 on the south; and Pit 12 was dug south and adjoining Pit 5. Despite the shallowness of most of the deposit in Trench A, bones and some cultural material were recovered from all of the excavated squares.

Trench B: It was decided to extend Trench A to the west since the greatest depth of deposit occurred in this vicinity. The westward extension of Trench A was called Trench B. It consisted of three squares whose content and depth of deposit were much like those of adjoining Pit 1 of Trench A.

In Pit 1 of Trench B a sea lion skull was noted lying at base (decomposed granite) at a depth of nine inches from the surface. The atlas, axis and the two adjoining cervical vertebrae were in articulation with the skull. The mandible of a domestic pig was recovered at a depth of eight inches, and two inches southeast of the sea lion skull noted above. The pig mandible was resting upon disarticulated sea lion bones.

Also recovered in Pit 1 were several articulated remains of sea lion flippers. In one instance the ulna and radius were in articulation. Three vertebrae were also noted as being in proper anatomical relation. In a two foot square area of the northeast quarter of Pit 1 a cluster of about six crushed sea lion skulls was noted. The skulls had apparently been dumped together at that spot.

Trench C: The midden deposit was 12 inches deep at the west end (Pit 4) of this trench, and four inches deep at the east end (Pit 3). Bones and cultural material were recovered from all squares of this trench.

Trench D: This trench consisted of but a single square, Pit 1. The deposit was only six inches deep and the top two and one-half inches were made up of decomposed shell, ash and rock. The soil was dark-colored. The remaining three and one-half inches were made up of bird, sea mammal, and occasional land mammal bones. These elements constituted approximately 90% of the deposit; the remainder consisted of rock and shell. Below this deposit a thin layer of guano was encountered. The base soil was red-brown to yellow-brown decomposed granite.

Trench E: In Pit 2 of this trench the midden deposit was only nine inches deep. In the southern half of this square a layer from four to six inches thick, containing a high percentage of crushed egg shell, was encountered. Cultural material was recovered from all seven squares of Trench E.

Pilling's work (n.d.) with the collection of glazed ceramic sherds has demonstrated, among other things, that depth from surface has little or no

significance in the interpretation of the occurrence of the ceramic specimens within the shallow site deposit. For this reason depth location is not presented for any of the specimens discussed in this report, unless such specific information seems warranted.

Additional Deposits Excavated

An area other than SFr-1, where collections were made by the U. C. group in 1949, has been given the designation SFr-24. This is about 250 yards due east of SFr-1, and is located immediately north and west of the rain shed associated with the main modern buildings of the Coast Guard Station at the south landing. It is in this area that the Russian buildings are reported to have stood (personal communications from Haase). Only a limited amount of surface troweling and collecting was done at this site. The specimens recovered from this limited troweling and surface collecting comprised only objects of Caucasian manufacture dating after 1850 (Pilling, n.d., p. 58).

The reason for not finding Russian period specimens in the area in which the Russians are supposed to have had their houses is probably that no collections were made in the rather localized area in which Russian period material might be expected to occur. In other words, a more detailed and intensive examination of the area of SFr-24 would be necessary to reveal Russian period remains. Simply stated, the material at SFr-24, which was thought to be of probable Russian origin at the time of collection in the field, turned out to be of non-Russian origin when it was investigated in the laboratory.

About 25 feet southeast of Trench E, surface collections were made in a rocky area. The specimens consisted of ceramic sherds of the post-Russian occupation. No aboriginal* specimens were found in this area.

Aboriginal Artifacts

A composite bone harpoon head, 1-103472 (two pieces) (Pl. 1a), was found in Trench E, Pit 2. Although it is undecorated, it is well-made and appears to have been whittled from a land mammal bone with a metal knife. The diagnostic features of this type of compound harpoon head is that it is "made of two proximally diverging barbs fitted to form a basal socket, and at their outer ends to hold a point or blade" (Drucker, 1943, p. 39). The Farallon specimen can be classified as Drucker's Type II (Drucker, 1943, p. 39; fig. 4b). The specimen he illustrates for his Type II is from the Comox Indians of Vancouver Island. Other Type II specimens are a salmon harpoon head used by the Nootka of Vancouver Island (Drucker, 1951, p. 20; fig. 3) and a specimen, similar to the Farallon example, from Cattle Point, an archaeological site on the southern Northwest Coast (King, 1950, fig. 13:29; p. 46).

With reference to the Northwest Coast, Drucker makes the following statement about this, his Type II, harpoon head: "A type of implement in fairly common use, though not well represented in archaeological collections,..."

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*The word "Aboriginal" used throughout this paper has reference to those native North American Indians brought to the Farallon Islands by the Russians.

(Drucker, 1943, p. 39). The distribution of the two-piece, compound harpoon head plotted by Leroi-Gourhan (1946, pp. 356-361, map 30) demonstrates a rather widespread use of this form among the Northwest Coast Indians.

A small barbed bone point, 1-103479 (Pl. 1b), was found on the surface of Trench B, Pit 3. This bilaterally barbed bone point has a single barb on one side, and two on the other. Although the specimen is now in relatively poor condition due to weathering it was originally quite well-made, and polished. A second point of this same type came from Trench E, Pit 2. The squared base of the latter point, 1-103530 (Pl. 1c) had been broken previous to its recovery. Barbed bone points of this type are identical to those found on Amaknak Island in the Aleutians by Jochelson (1924, p. 84, Pl. 24). Also identical to the South Farallon points are several specimens from atlatl darts, including 2-19342, which are catalogued as coming from Kodiak or the Aleutian Islands. Another identical specimen, UCMA 2-1761, is catalogued as coming from Unalaska, in the Aleutians. Birket-Smith illustrates this same type of barbed bone dart point as coming from Kodiak Island (Birket-Smith, 1941, fig. 14e).

It seems from the foregoing evidence, that the two bilaterally barbed bone points recovered from excavations at South Farallon could have been made by either Koniags, or by Aleuts. These points were probably attached to darts propelled by atlatls and used for the capture of sea otters, and possibly seals, from skin boats. Evidence of the use of the atlatl by Aleut sea mammal hunters along the California coast is in the form of Aleut/Koniag type atlatls recovered from Santa Rosa Island west of the Santa Barbara Channel in Southern California (Heizer, 1945; 1955, p. 111). These hunters of the Channel Islands, like those on the Farallons, were under the direction of the Russians.

There is the possibility that the two bilaterally barbed bone points and the composite bone harpoon head could have reached the Farallons from the north Pacific in the living bodies of sea mammals. The possibility of just such an occurrence is discussed after the description of the two stone projectile points below.

Two triangular stone projectile points were recovered from SFr-1. One specimen, 1-103398 (Pl. 1d), came from Trench A, Pit 4, while the other one, 1-103413 (Pl. 1f), came from Trench A, Pit 6. Both were made from chert by means of pressure flaking. Whether these stone points are of an Aleut or Koniag tradition, or whether they are Californian, is not clear. Points of this general type occur in the Southern California coast region and Channel Islands (Wedel, 1941, p. 149; Jones, in press). In Northwestern California, along the coast, chipped, concave base points quite similar to the two from South Farallon have been recovered archaeologically. Bennyhoff states that..."A characteristic projectile point of stone having a concave base... has been identified as the form used to insert in the slotted tips of the large harpoons. A stone tip was found imbedded in a sea-mammal rib from Hum-118" (Bennyhoff, 1950, p. 300, and fig. 4n, o). The harpoons noted by Bennyhoff as using this type of stone point differ considerably from the composite harpoon recovered from SFr-1. Just what the possible relationships are between the SFr-1 stone points and those recorded by Bennyhoff for Northwestern California is not at this time entirely clear. In view of the great numbers of sea mammals slaughtered on the Farallons it is not at all unreasonable to suggest that these stone points were derived from the carcasses of

animals killed on the Farallons. The points could easily have been left in the body of the living animals after an unsuccessful attempt at harpooning undertaken by the Yurok Indians who live on the coast in Northwestern California. That sea mammals can, and have, carried such weapons and parts of weapons to other regions to be captured later, often by a different group of people, has been documented by Heizer (1944, pp. 395-400). Neither Jochelson (1925) nor Heizer (in press) describe or illustrate chipped stone points of this type for the Aleutian and Kodiak Islands. Nor is this type described by Drucker (1943) for the Northwest Coast. Since these points are not known for these regions, or for the Pomo, an even greater reliance can be placed upon the suggestion made above that these points came to the Farallons in living animals which had once been harpooned in the Yurok area. The suggestion is further strengthened by reference to nearly identical projectile points recovered from the Yurok site Hum-118, as recorded by Heizer (n.d.).

Two blunt bone implements made from sea mammal bones may have been used in the skinning of the sea mammals taken by the hunters living on the Farallons. The larger tool, 1-103490 (Pl. 1q), which came from Trench C, Pit 1, is made from the left tibia of a seal. The smaller specimen, 1-103554 (Pl. 1r), fabricated from the right tibia of a seal, came from Pit 1 of Trench C. The two tools may have been in close association in the deposit. Both of them are well polished through use.

Specimen No. 1-103531 (Pl. 1s), a bird's ulna, had been cut squarely across, leaving an articulation and a portion of the shaft. This piece may represent the remains of an ulna from which a section of the shaft has been removed for use as a tubular bead. It came from Trench E, Pit 3.

An undecorated bird bone tube bead, 1-103414 (Pl. 1k), came from Trench A, Pit 6. The bead was made by cutting a small groove on the shaft of the bone and then snapping the shaft at the scored points. Specimen 1-103456 Pl. 1m) is part of a decorated bird bone tube which has at least five finely incised lines around it. In the narrow space between two of the incised lines, and near the unbroken end, diagonal lines have been incised. This specimen came from Trench B, Pit 1. Another incised bird bone tube, 1-103439, is a fragment upon which five incised lines can be seen. Presumably these equally-spaced lines, and others, encircled the specimen. This piece was recovered from the backdirt of Pit 6 of Trench E. A small segment of mammal (?) bone, 1-103399 (Pl. 1p) has seven incised lines which encircle it. The scoring and snapping technique of producing bone tubes (as noted above) was also used on this specimen. It was found in Pit 5, Trench A.

Incised bird bone tubes were used by Pomo women as ear ornaments. The tubes were often ornamented with beads and feathers, and in some cases with small feathered baskets (Barrett, 1952, pp. 300-301; Pl. 37). Both the incised bone tubes and the clamshell disc beads (see below) are undoubtedly due to Pomo influence, and probably belonged to the Pomo women who may have been taken out to the Farallon Islands.

A bi-pointed bird bone, 1-103473 (Pl. 1u), which came from Trench B, Pit 2, may have been used as a gorge hook for catching fish. Since the use of the gorge hook is rather widespread it is not possible to say whether the occurrence of the specimen at SFr-1 is due to Pomo influence, or to "Aleut". The use of this type of hook is well-documented for California Indians

(Barrett and Gifford, 1933, p. 189; Barrett, 1952, pp. 155-6), including the Pomo. Gorge hooks were used by the Northern Tlingit, not for fish, but for birds (de Laguna, et al., n.d.). Bone gorge hooks appear to be a common archaeological item on the Northwest Coast, also (Drucker, 1943, p. 56).

Specimen 1-103523 (Pl. 1x) consists of two pieces of bone which appear to belong to the same, spatulate type, implement--they are sections of a large sea (?) mammal rib which has been considerably thinned. One side of each piece is convex and the other flat. Both were recovered from Trench E, Pit 2, but do not fit together: an intervening segment was not found. This tool may have been used for scraping hides of the slaughtered animals.

A bone tool from Trench A, Pit 4, originally may have been used as an awl. This specimen, 1-103397 (Pl. 1t), is a cut and ground piece of mammal bone which was probably used for work with hides and leather rather than for making baskets. There are no materials on the Farallons suitable for making baskets of the types made by the Pomo.

A rectangular piece of abalone shell, 1-103482 (Pl. 1e), from Trench B, Pit 3, although unperforated, may have served as an ornament. Abalone shell ornaments, although usually perforated, are commonly used in California by many native groups, including the Pomo (Barrett, 1952, Pl. 20). It seems pertinent to mention here that several types of abalone abound on the Farallon Island rocks which are covered by high tide. The attention of the temporary inhabitants of South Farallon, however, was not likely directed toward the manufacture of shell ornaments and beads.

A total of four clamshell disc beads (Pl. 1g, i) were recovered during the archaeological investigations of SFr-1. There can be no question that these specimens, ranging from 6 to 10 mm. in diameter, are of Californian manufacture, and in all probability, specifically of Pomo derivation.

Two pieces of a fine-grained sandstone have been utilized as whetstones. Specimen 1-103452 (Pl. 2c) is an angular piece of stone with two smooth surfaces, one of which has been grooved as if some pointed object such as a bone awl has been sharpened on it. This piece came from the backdirt of Trench A. The second specimen, 1-103457 (Pl. 2b), came from Trench B, Pit 1. This fragmentary specimen has surfaces slightly concave, with grooves on one surface suggesting that pointed as well as flat objects were sharpened upon it.

Four pieces of slate of a good quality were recovered in the course of excavation at the South Farallon site SFr-1. One piece had been sawed, and may be a piece of commercially-produced slate (1-103494). An attempt had evidently been made to break the other three pieces along previously incised lines and it can be suggested that the "Aleut" hunters may have used this material for the manufacture of slate harpoon head blades. However, no such blades, or fragments of them, were found. The three slate pieces are 1-103385, 1-103450, and 1-103487. The first one came from Trench A, Pit 3, the second from Trench A, Pit 12, and the third from Trench C, Pit 1.

A cobble hammerstone, 1-103455 (Pl. 2a) came from Trench B, Pit 1. The narrow end of this stone is heavily battered, with additional battering evident along the thin edge of the stone.

An ovoid granite cobble, 1-103409 (Pl. 2d), is notched on both ends, thus making it suitable for use as a fish line sinker. It was recovered from Trench A, Pit 5.

Non-aboriginal Artifacts

Brass nails recovered from the site have rather large, flat heads and square shanks (Pl. 1h, j).

A square-headed, rectangular-shafted zinc (?) spike, 1-103418 (Pl. 1o) came from Trench A, Pit 6.

Several copper rivets, which were probably used as sail rivets, were recovered. A typical specimen, 1-103419 (Pl. 1 l), has a diameter of 1.2 cm., and a total width of 8 mm. All the rivets recovered came from the upper six inches of the deposit and thus can probably be considered to be from the American period of occupation of the island.

Specimen 1-103559 (Pl. 1n) is an unused copper rivet with a cylindrical shaft and a flat head. This specimen was recovered from the surface of the site.

A button, 1-103548 (Pl. 1z), consisting of a brass disc with a hemisphere of leather stuffed with hair attached to its upper surface came from Trench E, Pit 5.

A bone button, 1-103471 (Pl. 1v), was found in Trench B, Pit 2. This specimen is slightly convex on the back and on the front, except for the circular depression on the face in which the four perforations lie.

A white porcelain button, 1-103377, with four holes and with the back and front (Pl. 1w) the same as the bone button, was recovered from Trench A, Pit 1. A second porcelain button (Pl. 1y) was found which has a diameter of 1.1 cm., and a thickness of 3 mm.

A light-blue glass bead, 1-103391, was found in Trench A, Pit 3. This small bead has a diameter of 3 mm. and closely resembles Meighan's bead type No. 204 (type collection housed in the UCMA, Berkeley) which occurs at several sites on Santa Catalina, Santa Cruz, and Santa Rosa Islands. It has also been found at Ker-74 (Kern County), Iny-2 (Inyo County), LAn-52 (Los Angeles County), Sac-56 (Sacramento County), La Purisima Mission, and at Fort Spokane in Washington. Since Iny-2 and Ker-74 were apparently occupied until about the middle of the 19th century the bead found at SFr-1 may have been deposited there in either Russian or American times. Because it is a bead commonly known as a "trade bead" it seems more likely that it stems from the time when native peoples were stationed on the Island. A trade bead would most likely date from the Russian period of occupation of South Farallon.

Only one complete clay pipe was found during the archaeological work on South Farallon. This pipe, 1-103565 (Pl. 1c'), has the name "Weil and Co." impressed on its stem.

Fragments of four pipe stems were found, one of which had the remnants of a word stamped on it. This fragment had been so badly burned that the

clay had become partially vitrified and the word obscured. A fifth stem fragment, 1-103501, has the words "Dumeric", "St. Omer", and "Depose" stamped in it. This fragment came from Trench C, Pit 3. "The mark Déposé, which occurs on French goods after the mid-1800's, is the French equivalent of the British Registered and the American Patented" (Winchester, 1951, pp. 187-188). At least the fifth specimen, therefore, can be placed as coming from the period of the American occupation on the island.

Three complete gun flints, and one fragment, were found at SFr-1 (Pl. 1a'). Flintlock weapons came into use about 1650 (Bowman, 1953, p. 12), and went out of general use ca. 1840.

An expended, copper percussion cap, of the type used on cap-and-ball firearms, was found in Trench A, Pit 1. This specimen has been opened out and flattened. Percussion weapons were little used until about 1840 (Bowman, 1953, pp. 34-36).

A scrap of lead, 1-103433, was found in Trench A, Pit 8. This piece has been cut from a larger piece...apparently from a subrectangular bar of lead. The lead scrap may be the by-product from the manufacture of lead shot.

The gun flints can probably be ascribed to the earlier, Russian period, while the percussion cap is probably from the American period. The lead probably was for the manufacture of shot and could have been used during either period of occupation.

Four fragments of a flat, decorated steatite piece were found; three of the pieces fitted together (Pl. 1b'). The intended function of this steatite slab is not known.

Six brick fragments were found during the course of investigation at the site. The largest specimen, 1-103408, came from Trench A, Pit 5. It is 6 cm. thick, 15.8 cm. wide, and has a fragmentary length of 12 cm. One side of the brick is light tan in color, while the other side is a light orange. The core is a salmon pink. The paste is coarse, with crushed brick as temper. The temper elements are extremely large, and measure as much as 4 mm. in diameter, and sometimes considerably more. Water-rolled quartz sand and other stone materials occur in the paste. A coating of sand was noted on all of the brick specimens; although the sand was not the same in all cases, it gave the outsides of the bricks a finer and harder appearance than the interior material, as seen when the interior is exposed by a break. It is suggested that when the bricks were dumped from their molds, and still damp, they were covered with this coating of fine sand.

Specimen 1-103515 is sufficiently similar to 1-103408 that it could be a fragment of it, although the former came from Trench E, Pit 1. This piece is too fragmentary to allow a determination of the brick's dimensions.

Specimen 1-103379 was found in Trench A, Pit 1. It possibly has less quartz sand in the paste than the two previously described pieces. The exterior and interior are brick-red in color, and the sand coating on the outside is not the same as on the two previous specimens. This specimen also is too fragmentary to provide data on the size of the complete brick.

Specimen 1-103572 is a brick fragment which came from the bricked-up blowhole upon which a locomotive whistle was mounted in 1858. The paste of this brick is quite similar to that of the previously described pieces, except that it is more finely textured and lacks a quartz sand temper. Broken brick has been included in the paste; one such fragment was measured which had a diameter of 2.5 cm. Most obvious in the paste is the inclusion of fine gravel, or coarse sand, which is composed of water worn pieces of stone which might have a certain iron content to give them their dark, rusty appearance. This fragmentary brick has a width of 9.6 cm., and is coated with a layer of very fine sand, not unlike that on specimen 1-103379.

Specimen 1-103495 is a small fragment of brick which came from Trench C, Pit 1. This small piece might also have come from specimen 1-103408, as it is sufficiently similar in color and paste.

Specimen 1-103514 is a small fragment of a brick from Trench C, Pit 4. This piece could be a fragment of specimen 1-103379 as evidenced by its color and paste.

For comparative purposes the dimensions of other early California bricks are given below. One brick in fragmentary condition is from the Russian watering site at Bodega Head in Sonoma County which bears the UCAS site designation Son-294. Two other bricks are from the Klebnikoff Ranch which bears the UCAS site designation Son-291. This ranch was part of the Russian holdings, and was taken over by an American in 1842. The Klebnikoff Ranch bricks date from the American occupation, not the Russian.

Bricks measured in the first brick house (constructed in 1848; cf. Hoover, Rensch and Rensch, 1948, p. 278) built in Monterey, California, agree closely with the dimensions of the Klebnikoff Ranch bricks (see table below). Since both groups of bricks are of the early Anglo-American period in California, this is reasonable.

	L	W	T	Hardness
SFr-1	(12.0)	15.8	6.0	3.5-4.0
Russian Watering Site	(14.0)	14.8	6.5	ca. 5.0
Blowhole	----	9.6	---	---
Klebnikoff Ranch 1	(15.5)	10.0	5.7	5.5
Klebnikoff Ranch 2	(14.8)	10.0	5.3	5.5
Monterey House	22.3	10.8	5.7	---

TABLE 1

Dimensions in cms. of Russian vs. American Bricks.
Fragmentary measurements in parentheses.

It will be noted from the above table that the measurements of the bricks do not precisely match one another within their period. For example, there is a difference of 1 cm. in the width between the two Russian-made bricks, and more than 1 cm. between two of the American bricks. However, the dimensions of the two groups of bricks are sufficiently different to indicate that distinct types are represented.

A detailed description of glazed ceramics recovered from the investigations on South Farallon is not given here because of its presentation elsewhere (Pilling, n.d.). Through this identification and dating of the ceramics, however, it has been possible to add knowledge of the Russian period of occupation of California.

Pilling points out that depth data are of no significance because of the shallowness of the site (maximum depth of 24 inches) and of the disturbance of the deposit by burrowing rabbits.* Horizontal distribution of sherds, however, tends to demonstrate separate areas of Russian and American occupation. By making use of published material Pilling has been able to date a few of the glazed ceramic wares from the Farallons.

The following three wares are dated by Pilling as belonging to the Russian period: Blue-painted Porcelain; White-glazed Earthenware with "bluing" used (also possibly of the American period); Spatterware Earthenware.

Dated as coming from the American period are these five wares: Green-printed Porcelain; White-glazed Earthenware of Ironstone type; Non-blue transfer-painted Earthenware; Flowing Type Earthenware; Brown-glazed Earthenware, including the subtype Green-and-brown-glazed.

Possibly of the Russian period are the following four ceramic types: Cream-colored Earthenware; Brown-glazed Earthenware; Dark-brown Stoneware; Olive-glazed Earthenware.

The leg of a china doll was recovered from SFr-24. This specimen, 1-103564, is probably the leg from a cloth-bodied doll as evidenced by the groove at the top of the leg to which the cloth body could have been attached.

A cloth doll with a similar porcelain leg is in the Eastern California Museum, Independence, Inyo County. This doll is reported as first in use about 1872.

Faunal Remains

In the trenches excavated at the site there were areas of concentration of sea mammal and bird bones. In some cases these osseous remains were so closely packed as to nearly exclude soil. There is little doubt that these remains mark the spot where the offal and slaughter refuse was dumped, or thrown. Sea mammal remains include those of the sea lion (Zalophus californianus), the Southern fur seal (Arctocephalus townsendi), and the sea otter (Enhydra lutris). Land mammal remains include those of deer (Odocoileus sp?), elk (Cervus sp?), domestic pig (Sus scrofa), and domestic cat (Felis catus). Since land mammals were not indigenous to the islands the few remains found were from animals, or meat from animals, brought to the islands.

* Introduced some time before 1892 (Hanna, 1951, p.302).

Identification was not made of the bird remains, but a number of species are undoubtedly represented. Birds recently occurring at the island include several kinds of cormorants and gulls, murres, guillemots, puffins, pelicans and others.

Shells collected from the midden deposit include Acmea mitra, and other types of limpets. Also recovered were barnacles (Balanus sp?), mussels (Mytilus californianus), pecten (Pecten vancouverensis), and other such remains as Cryptochiton stellerii, Thais lamellosa (?), Thais canaliculata, Venerupus kennerlyi, and Tegula funebralis. Also common among the shells collected are those of the red-backed abalone (Haliotis rufescens).

Sea mammals were, at least in part, butchered with an axe or similar implement. Evidence of this was found in the form of bones with cuts on them. The cuts are such that a heavy tool, such as an axe, or cleaver, would have had to be used to make them. In one instance an atlas vertebra of a fur seal had been cut completely through. An axe was probably used to sever the heads from these animals. There were also several instances of ribs having been cut partly through with a single blow, and the rib then snapped.

Knife cuts were observed on an innominate bone of a fur seal, on the astragalus of a domestic pig, and upon the spine of a sea lion vertebra. These cuts indicate that a metal knife was an important item in the butchering of the slaughtered animals, and that an axe was only used for some of the heavier cutting.

Summary and Conclusions

Archaeological investigations on South Farallon, at the sites of SFr-1 and SFr-24, produced a small number of aboriginal artifacts, a few of which can be ascribed to Aleut and/or Koniag manufacture. Other specimens are so non-diagnostic that their cultural affinities cannot be determined. A few artifacts, such as the clamshell disc beads and the incised bone tubes, are of California origin, and almost certainly were made by the Pomo Indians. The two-piece composite harpoon head, although well-defined typologically, has such a wide areal distribution that its origin cannot be traced with certainty to Aleut or Koniag hunters. This harpoon head is more suggestive of Northwest Coast influence than Pacific Eskimo. Its occurrence at SFr-1 may indicate that one or more of the "Aleut" hunters was from one of the Northwest Coast tribes.

Russian influence on South Farallon (e.g., Corney, supra) is substantiated archaeologically by the recovery of glazed ceramics, gun flints, bricks, and bones of animals which had been butchered with axes and knives. The cuts on the bone may have been made by the native hunters, but were probably done with metal tools provided by the Russians. The natives also probably used Russian-supplied glazed pottery in their everyday life, although this cannot be proven archaeologically. Our guess is that the natives lived at and butchered animals at SFr-1. At this site both animal bones and glazed ceramic sherds were found. A detailed investigation by Pilling (n.d.) traces the points of origin for a number of the ceramic wares from SFr-1. From this investigation, he reaches the conclusion that little or none of the ceramic wares were of Russian manufacture, but rather that they were of English or

American production. The wares were probably transported to the Island by Russians. The bricks were probably not only supplied by Russian sources, but were actually made at Russian settlements.

It has been suggested that the site SFr-24 was the area where the Russians lived in their stone houses. We did not find archaeological evidence of a Russian occupation at SFr-24, but limitations, including that of time, prevented excavation at this region.

The archaeological excavations on South Farallon have substantiated or corrected several features of the historical record. Meat of shellfish, fish, and sea mammals was the main diet of those stationed on the Island. They, of course, had little opportunity to have a diet of other than sea products. The diet was probably least palatable to the Russians, although Corney (supra) states that dried sea lion meat is as good as Spanish (Californian) jerked beef. Importation of some land animal meat was desirable to those living on the Island, as may be inferred from the presence of elk, deer, and pig bones in the midden.

The residents of the Islands must have had some skin boats available for use. The small, bilaterally-barbed bone points indicate that the atlatl and dart was one method for taking sea mammals, probably the smaller sea mammals. The use of the atlatl and dart as a hunting weapon indicates the use of the bidarka (or kayak), for the atlatl is important in crafts where only one hand can be freed from the paddle. Peter Corney (supra) asserts that the people on the Island did not have any boats. If this were true, the hunters would then have to cast their harpoons from the rocky shore and retrieve the mammals by a line attached to the harpoons.

Continuation of some California Indian culture on the Island is indicated by the presence of clamshell disc beads and incised bone tubes, which are aspects of Pomo culture. Despite their isolation from the mainland it seems that the Pomo on the Island, who we have reason to believe were women, retained some of their ornaments. The bone tubes, and possibly the beads, may actually have been manufactured on the island.

In summation, the situation on South Farallon, as revealed by limited archaeological investigation, is essentially like that described by Corney in 1817 (supra). The small population included a few Russians, some Kodiak, and probably some Pomo women. The Kodiaks spoken of by Corney, however, may have consisted of both Aleuts and Koniags, and possibly individuals from some Northwest Coast Indian tribe. This situation, as suggested by the aboriginal artifacts recovered, is one in which a rather diverse group of people was brought together in near isolation on a small, previously uninhabited island. The interaction of these people with differing cultural backgrounds would provide an interesting study if more material were obtainable. The archaeologist, however, is limited in his reconstruction by the meager remains recovered at the Farallon Islands. We do know that elements of the various cultural traditions were continued, although there is little or no evidence of how these cultural traditions interacted within this social setting.

In reviewing the material from the South Farallon Island, one feels that the most complete story of the times and lives of the mixed group of people who lived on the Island will not be revealed by archaeology. Most

likely, the best description will ultimately be gained from the study of yet unpublished archival materials in the United States, Alaska, and Russia.

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MPM-B	Bulletin of the Public Museum of the City of Milwaukee, Milwaukee, Wisconsin.
SM-M	Southwest Museum Masterkey, Los Angeles, California.
UC-AR	University of California Anthropological Records, Berkeley and Los Angeles, California.
UCAS-R	University of California Archaeological Survey Reports, Berkeley, California.
UC-PAAE	University of California Publications in American Archaeology and Ethnology, Berkeley and Los Angeles, California.

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EXPLANATION OF ILLUSTRATIONS

MAP

Map 1. Site map of SFr-1 showing the location of the excavated squares.

PLATES

Plate 1.
a. Compound bone harpoon head (1-103472).
b-c. Bi-laterally barbed bone dart points (1-103479 and 1-103530).
d and f. Chipped stone projectile points of a type formerly used on Yurok harpoons (1-103398 and 1-103413).
e. Rectangular abalone shell ornament without perforation (1-103482).
g and i. Clamshell disc beads (1-103412 and 1-103407).
h and j. Brass nails (1-103496).
k, m and p. Plain and incised bone tubes (1-103414, 1-103456, and 1-103399).
l and n. Brass rivets (1-103419 and 1-103559).
o. Zinc-coated spike (1-103418).
q and r. Bone skinning (?) tools (1-103490 and 1-103554).
s. Cut bird bone (1-103531).
t. Bone awl (1-103397).
u. Bi-pointed bone pin, possibly a gorge hook (1-103493).
v. Bone button (1-103471).
w. Porcelain button (1-103377).
y. Porcelain button, small (1-103547).
x. Flat bone tool fragment (1-103523).
z. Leather button with metal base (1-103548).
a'. Gunflint (1-103562).
b'. Ornamented soapstone slab fragment (1-103520).
c'. Clay pipe bowl (1-103565).

Plate 2.*
a. Cobble hammerstone (1-103455).
b. Sandstone whetstone (1-103457).
c. Sandstone whetstone (1-103452).
d. Fishline sinker (?) (1-103409).

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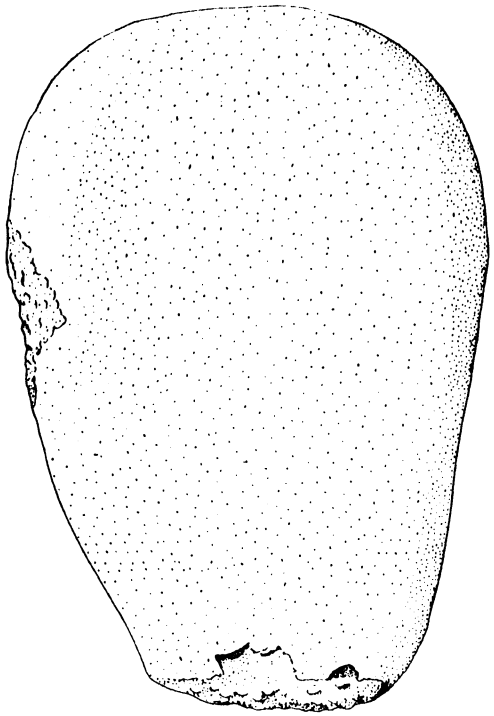
* Specimens on this Plate are all shown actual size.

Plate I



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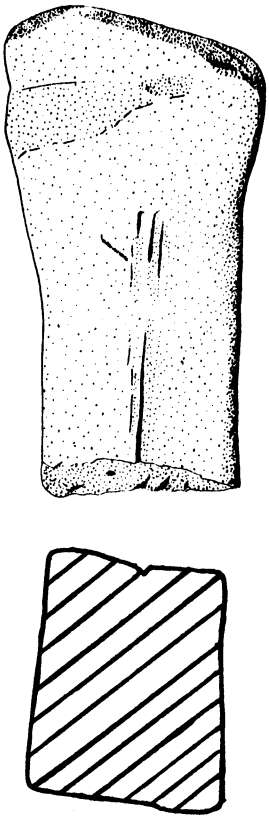

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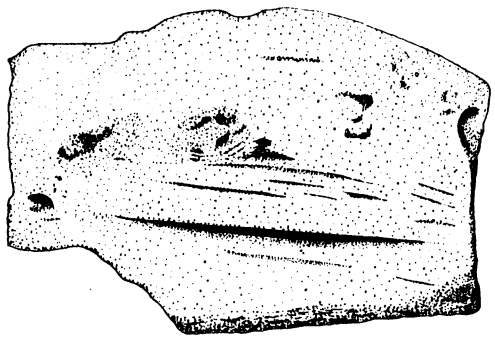

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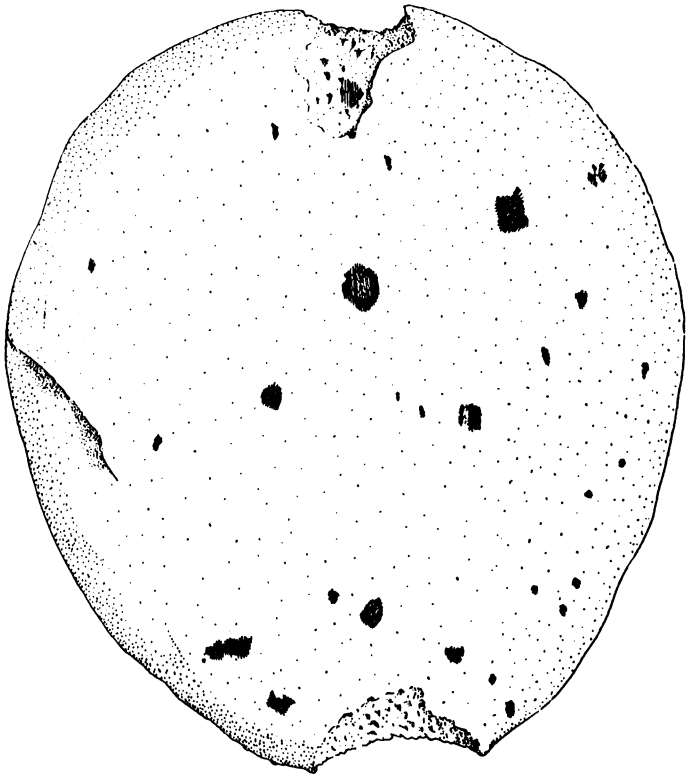

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Plate 2